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U. S. DEPARTMENT OF COMMERCE
Charles Sawyer, *Secretary*
BUREAU OF THE CENSUS
J. C. Capt, *Director*

BUREAU OF THE CENSUS MANUAL OF
TABULAR PRESENTATION

An outline of theory and practice in the presentation
of statistical data in tables for publication

Prepared by
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*Bureau of the Census
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UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1949

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ACKNOWLEDGMENTS

This manual constitutes a special report of the Bureau of the Census. The preparation of the volume was undertaken at the suggestion of Philip M. Hauser, former Deputy Director, who established the basic objectives and reviewed the initial detailed outline.

In the planning and preparation of this report, Mr. Jenkinson was assisted by Dorothy M. Belzer. Her constructive suggestions, and her translation of general concepts into practical reality, have left their imprint throughout the volume.

The final manuscript was reviewed by the Bureau of the Census Committee on Presentation and Publication Practices. Leon E. Truesdell, Chief Demographer, and Calvert L. Dedrick, Coordinator, International Statistics, members of the committee, gave the manuscript a particularly detailed examination. Their many comments, suggestions, and criticisms have contributed greatly to improve the content of the report. Dr. Truesdell also contributed heavily in another respect in that the author, during the course of the Sixteenth Decennial Census, worked under his supervision and profited immeasurably from that experience.

Finally, the manuscript was reviewed by all subject-matter divisions of the Bureau of the Census. Especially helpful were the suggestions of Ray Hurley, Chief, Agriculture Division, and his professional staff. Morris B. Ullman provided invaluable detailed comments which were incorporated, in large part, in the final report. Acknowledgment also should be made of the aid of many other members of the professional and clerical staff of the Bureau of the Census who contributed their suggestions and criticisms.

June 1949.

Brief citation

U. S. Bureau of the Census. *Bureau of the Census Manual of Tabular Presentation*, by Bruce L. Jenkinson. U. S. Government Printing Office, Washington, D. C., 1949.

FOREWORD

The interest of the Bureau of the Census in the manner in which statistical data should be arranged and described is a reflection of its own day-to-day operations. Its publications, whether issued as formal reports, monographs, bulletins, or releases, constitute official sources of information in many subject fields. The primary purpose of these publications is to provide reliable and needed information to the users of statistics—a purpose that can best be served if the tabular materials are made easy to read and to understand. In itself, this places upon the Bureau of the Census a serious responsibility for the development and maintenance of sound principles and standards in tabular presentation.

This manual is designed as a reference aid for use by analysts and technicians of the Bureau of the Census in the continuing effort to meet the obligations of the Bureau in this field. It is intended as an operating tool, not as a book of regulations. Absolute uniformity in presentation of the Bureau's statistics is not contemplated. However, unnecessary variations can be most easily avoided by reference to a commonly accepted norm. Within obvious limits, this manual is intended to provide that norm.

In general, this volume is intended to lead the analyst or technician toward the solution of his particular problem in table design and preparation. In some cases, it may be found that the manual answers the specific question. In other cases, it may prove desirable to adapt the manual example to the specific need, a course that is entirely appropriate as long as the basic principles involved are taken into account.

In the final analysis, there are only two rules in tabular presentation that should be applied rigidly: *First*, the use of common sense when planning a table, and *second*, the viewing of the proposed table from the standpoint of the user. The details of mechanical arrangement must be governed by a single objective; that is, to make the statistical table as easy to read and to understand as the nature of the material will permit.

J. C. CAPT, *Director*,
Bureau of the Census.

"Statistics are far from being the barren array of figures ingeniously and laboriously combined into columns and tables, which many persons are apt to suppose them. They constitute rather the ledger of a nation, in which, like the merchant in his books, the citizen can read, at one view, all of the results of a year, or of a period of years, as compared with other periods, and deduce the profit or the loss which has been made, in morals, education, wealth or power."

—J. D. B. DeBow,
Superintendent of the Census, 1853-1854.

IV

CONTENTS

	Page
Introduction.....	ix
CHAPTER 1. CLASSES OF TABULAR PRESENTATION	
1-A General classes.....	101-102
1-B Leader work.....	111-114
1-C The text tabulation.....	121-125
1-D The formal statistical table.....	131-133
CHAPTER 2. THE FORMAL TABLE: STRUCTURAL PARTS AND TYPES	
2-A Structural parts of the table.....	201-208
2-B Structural types of tables.....	211-226
CHAPTER 3. THE TABLE TITLE	
3-A General.....	301-309
3-B Methods of title writing.....	311-314
3-C Universe segment.....	321-325
3-D Classification segment.....	331-336
3-E Area or space segment.....	341-352
3-F Time-reference segment.....	361-368
3-G Title description of percent data.....	371-374
CHAPTER 4. THE TABLE NUMBER	
4-A General.....	401-407
4-B Numbering standard-series tables.....	411-414
4-C Use of prefix letters.....	421-424
4-D Use of suffix letters.....	431-435
CHAPTER 5. THE HEADNOTE	
5-A General.....	501-506
5-B Specific use of the headnote.....	511-513
5-C Wording of the headnote.....	521-523
CHAPTER 6. THE FOOTNOTE	
6-A General.....	601-606
6-B The specific footnote.....	611-615
6-C The source note.....	621-624
6-D Reference symbols: Type, placement, and sequence.....	631-640
6-E Reference range of symbols.....	641-643
6-F Placement and arrangement of footnotes.....	651-656
6-G Wording of the footnote.....	661-665
CHAPTER 7. ALLOCATION TO STUB AND BOXHEAD	
7-A General.....	701-703
7-B Allocation principles and problems.....	711-713

V

CONTENTS

CHAPTER 8. THE STUB: GENERAL AND DEFINITIONS

	Paragraph
8-A General.....	801-803
8-B Definitions of component parts.....	811-821
8-C Standard stub arrangements.....	831-835

CHAPTER 9. THE STUB: HEADS AND CAPTIONS

9-A The stubhead or box.....	901-909
9-B Center heads and subheads.....	911-920
9-C Colon and dash (read-in) lines.....	921-933
9-D The line caption: The data line.....	941-948
9-E The line caption: Total and subtotal lines.....	951-960
9-F The unit-indicator.....	961-966

CHAPTER 10. THE STUB: CONSTRUCTION AIDS TO CLARITY

10-A Stub indentation.....	1001-1010
10-B Leaders.....	1011-1018
10-C Space breaks: Analytical and reader.....	1021-1030
10-D Use of boldface and italic type.....	1031-1033

CHAPTER 11. THE STUB: STANDARD LISTINGS AND INTER-STUB CLARIFICATION

11-A Listing areas.....	1101-1118
11-B Listing time periods.....	1121-1124
11-C Quantitative and qualitative classifications.....	1131-1133
11-D Clarifying relationships between stubs of varying detail.....	1141-1144

CHAPTER 12. THE BOXHEAD

12-A General.....	1201-1211
12-B The column head or caption.....	1221-1227
12-C The column head: Total and subtotal column.....	1231-1233
12-D The dash (or read-in) head.....	1241-1248
12-E The spanner head.....	1251-1255
12-F The banner head.....	1261-1266
12-G The undercut spanner.....	1271-1272

CHAPTER 13. HORIZONTAL AND VERTICAL RULES

13-A General.....	1301-1302
13-B The horizontal rule.....	1311-1316
13-C The vertical rule.....	1321-1334

CHAPTER 14. THE FIELD

14-A General.....	1401-1402
14-B The cell.....	1411-1414
14-C The unit-indicator.....	1421-1426
14-D The field spanner.....	1431-1434
14-E Braces.....	1441-1448

INDEX

	Page
Alphabetical index.....	259

CONTENTS

FIGURES

Figure	Page
1. Examples of leader work.....	2
2. The formal statistical table and its major parts.....	10
3. Bureau of the Census page sizes.....	13
4. The fractional-measure table.....	14
5. The narrow table.....	15
6. The narrow-divide table.....	17
7. Multipage narrow table with continuous boxhead.....	18
8. The broad table.....	20
9. The parallel table.....	22
10. Table titles: Capitalization and indent.....	34
11. Experiment in formal terminology for percent tables.....	57
12. Numbering sequence for footnote reference symbols in boxheads of statistical tables.....	85
13. Range of reference of footnote symbols.....	88
14. Letterpress and typewriter-offset combinations for center heads in stub.....	115
15. Colon and dash lines: Their use and misuse.....	121
16. Indentations, with and without conflicts at various levels.....	143
17. Stubs for regions, divisions, and States.....	160
18. Boxheads and their component parts.....	184
19. Use of abbreviations to decrease depth of boxhead.....	190
20. Placement of bottom rule.....	227
21. Allocation of white space to tables.....	234

INTRODUCTION

Purpose and nature of manual.—This manual is devoted largely to an outline of theory and practice in the presentation of statistical data in tables for publication, illustrated by specific examples throughout. The emphasis is placed upon principles, rather than rules, in order to provide the necessary flexibility required by the varying needs of the several subject divisions of the Bureau. The immediate objectives are as follows:

1. To provide an operating reference manual for the use of analysts and technicians within the Bureau of the Census in connection with the planning and review of statistical tables which are to appear in census publications.
2. To provide a general statement in this field, with specific reference to the standards and practices of the Bureau of the Census, for the convenience of other producers of statistics, of technicians, and of students of the subject.

Organization of volume.—Designed as a reference volume, this manual has been organized so as to make each major section as nearly independent as possible. In consequence, a certain amount of repetition will be found, particularly in the case of definitions.

The basic unit of the volume is the numbered item or "paragraph." These paragraph numbers are keyed to the chapter numbers. Thus, paragraphs 101 to 133 comprise chapter 1, paragraphs 201 to 226 comprise chapter 2, etc. It follows that, while the numbering is not continuous, no paragraph number is repeated. This organization and reference principle has been carried also into the table of contents and the alphabetical subject-index in that they have been keyed to paragraph numbers, rather than to page numbers.

Selection of materials.—The field of tabular presentation is characterized by diversity of practice, particularly in matters of detail. The methods described here comprise a selection of those in common use which have proved satisfactory in the experience of the Bureau of the Census. This does not mean, however, that they constitute the only correct methods, or even necessarily the "best" methods, since viewpoints and needs differ broadly in this field. Detailed examples have been labelled as "right," "wrong," etc., primarily in terms of Bureau of the Census practice. More general application of these labels must rest upon the reasons assigned and the merits of the individual case.

The material included represents, to a limited extent, a codification of existing practices¹ common to all Divisions of the Bureau of the Census, selection where present divisional practices diverge, and a setting-down of general principles which all of the Bureau's statistical publications should reflect. The practices recommended conform also to the requirement that tabular presentation should be of the highest quality consistent with the demands of mass production.

Applicability for general use.—Throughout this volume, the emphasis is on the mass-production situation found in the Bureau of the Census. Therefore, the problems selected for detailed discussion will not always reflect the general experience outside the Bureau. However, in most instances, the basic principles laid down will be found applicable in general statistical practice.

The basic principles of tabular presentation are the same irrespective of subject matter. Hence, the frequent use of age, race, sex, and marital status for illustrative purposes does not restrict the applicability of the manual to those and related subjects. Where problems peculiar to a given subject or subjects are discussed, the subject content of the examples has been adapted accordingly. Considerations involved in the standardization of subject matter in the examples, and in the selection of age, race, sex, and marital status for the purpose, are as follows:

1. The purpose of the examples is to illustrate points in presentation. The shift from one subject to another would tend to focus attention on the differences between subject material, example to example, rather than on the presentation points involved.
2. The decision to illustrate the manual by examples on each point, run within the text, rather than to use full-page tables illustrative of many points simultaneously, placed a premium on the selection of subject material which could be compressed within a small amount of space. Both the brevity of the individual terms and the shortness of the complete lists of items (such as male and female, under 45 years old and 45 and over) made the classifications of age, race, sex, and marital status suitable to the purpose.
3. Since the manual will be used by analysts and technicians in many subject fields, it seemed important that no user should be required to have a specialized knowledge of a given subject in order to understand the analytical relationship of one line or column to another. Again, the everyday concepts of age, race, sex, and marital status seemed appropriate.

¹ An important departure from past Bureau practice provided in this manual is the use of lower case (small letters) in stub boxes and in uppermost spanners of tabular boxheads (see par. 1210). Traditionally, the Bureau of the Census has used either capital letters or "small caps" for such captions. The new style was adopted February 4, 1948. The old style will be continued for some time in the *Statistical Abstract of the United States*, which is printed, in large part, from standing type.

General Problem of Tabular Presentation

Tabular presentation as an end-product.—Since it represents the culmination of a long series of census or survey operations, tabular presentation can only reflect the results of the previous stages. Even though planned in advance, statistical tables cannot be completed until after the census or survey planning, questionnaire designing, enumerating or transcribing, coding, card punching, and tabulating operations have been completed. However, the published tables, and their accompanying text, tend to be the only results of the expenditure of effort, time, and money which the using public sees; hence the user's evaluation of all operations tends to be based on the final step, that is, on the statistics as presented. In itself, this makes sound presentation vitally important. Good presentation transmits the quality of the previous operations and, in turn, assists in making clear the meaning of the material. Poor presentation not only fails to clarify the data, it tends to impair or destroy the effect of the work that has gone before.

Basic objective.—In the design and preparation of statistical tables the basic objective is to arrange and present data in such a way that their meaning and significance can readily be grasped by the user.

In this respect, the statistical table represents a compromise, rather than a solution. It is an efficient, but by no means an ideal, way of presenting data, and its usefulness increases with multiplicity of classification. It must be remembered, however, that many potential, and even actual, users of statistical tables do not find it easy to understand columns and rows of figures. This is the group about whom the table designer should be most concerned, rather than about his more experienced colleagues. It follows that table design should be kept as simple as possible, taking into account the subject matter and available space. This need not penalize users who are statisticians since they find simplicity in presentation a decided convenience. It is extremely important, however, to those who may have an equal need for the data but have difficulty in reading tables of any kind.

The dividing line between good and bad presentation may best be determined by the answer to the question: "Which method is simple, focuses the reader's attention on the data (rather than on the form), and makes clear the meaning and significance of the information?" That which clarifies the meaning of the statistics and concentrates the attention upon them is good presentation; that which obscures the meaning of the data or distracts the attention from them is poor presentation.

Fundamental approach.—Tabular design must be approached from the standpoint of the user rather than from that of the producer. It is not enough that the table be clear to the designer, who necessarily has an intimate knowledge of the statistics and their qualifications. The imperative requirement is that the table be clear to the user; that is, the table must be so designed that the user will be able to obtain from it that which he wishes and needs to know, so far as the desired information is present. Conformity with this requirement is not always simple since it is difficult for the table designer to discount his own knowledge and review his own work through the eyes of the using public. Yet that task must be performed if the purpose of the table is to be achieved.

Nature and significance of style.—Style in tabular presentation consists of the distinctive or characteristic mode of presentation or construction determined upon as satisfactory by the producer of the statistics. In general, it refers to the aggregate of practices and methods; in particular, it refers to the precise way of doing things prescribed by, or agreed upon within, a given organization. The significance of style lies primarily in its influence in simplifying the production of statistics and in facilitating their understanding when produced.

In terms of production, style consists of the great body of usual practices common to any large organization and essential to any large-scale operation. In this respect it is merely another name for "custom."

The role of style as an aid to the understanding of the data is frequently overlooked. By promoting uniformity in the treatment of many details, it builds up an attitude of "normal expectation" on the part of the reader. This tends to remove from the reader's notice many points of minor detail which may distract him from the content of the table if they are forced on his attention by unaccountable variation.

This development of "normal expectation" can be capitalized upon by the producer of statistics. If "differences" which have no meaning are scrupulously avoided, the reader is far more likely to note and respect those real differences which can only find expression in the change of a single word in a phrase, or in a shift in the terminal point of a column rule.

Style is rigid only in that it should be followed unless there is a sound analytical or mechanical reason to the contrary. It is not properly a barrier to useful development and change. It is, and should be, a barrier against unnecessary, unwarranted, or capricious variation.

Comparative roles of content and mechanics.—The purely mechanical aspects of tabular presentation, although important, can be over-emphasized. Mechanics must be consistently thought of as a tool of presentation, not as an end in itself. Proper attention to mechanical style and form is essential, but forcing statistics into a rigid physical pattern, or an overreliance upon mechanical tricks, can easily defeat the whole purpose of presentation.

In the last analysis the only purpose of mechanics in this field is to help in making clear to the reader the significance of the data presented; that is, the content of the table. The following statements may aid in clarifying the comparative roles of content and mechanics:

1. The point of departure for both content and mechanics is the meaning and significance of data.
2. Content is the reason for the table's existence; mechanics merely translates requirements of content within physical limits.
3. Content determines inclusion and relative placement of data; mechanics assists in presentation of content by means of typing, drafting, and printing aids.
4. Content poses problems of space; the function of mechanics is to solve them in a fashion which aids in, rather than detracts from, the presentation of content.
5. Content is limited by space only in terms of the amount to be presented, never in terms of the meaning of the data. Mechanics is limited by space in terms first of preserving or enhancing meaning, and second by rigid physical and operational requirements.
6. Content is restricted by mechanics only so far as mechanical limitations add to, or detract from, the presentation of meaning. Mechanics is completely bound by content since a perfect physical pattern fitting the space is useless if meaning is impaired or destroyed.

Effect of different reproduction processes on table design.—

Although the difference between letterpress and offset printing is basic in terms of reproduction technique, it has comparatively little effect on table design as such. In planning a table to be typewritten for offset reproduction, however, the designer must not rely on italic, bold face, or differences in type size, as such, to bring out relationships.² The typewriter "substitutes" for these letterpress techniques are discussed at appropriate points in the detailed materials.

In some instances, final materials for offset reproduction consist of tabulating-machine sheets. In most such cases, these sheets will have been planned accordingly. When designing the sheets, the normal principles of tabular presentation should be followed as far as is prac-

² An exception is the instance of the use of special typewriters which provide the opportunity to use bold face and italic type, as well as type of different sizes. In general, the same principles should be followed in planning tables for such typing situations as for type-set composition.

INTRODUCTION

ticable. Beyond that point, the obvious mechanical limitations of the printer-tabulator must be taken into account and the detailed rules of presentation modified as necessary.

Request for comment and criticism.—Suggestions and comments leading to the improvement of this manual will be appreciated. This invitation is extended not only to analysts and technicians within the Bureau of the Census, but also to those persons outside the Bureau who may have occasion to refer to this volume with respect to their own problems, and to all others who are in any way interested in this subject. All suggestions received will be studied carefully, acknowledged, and will be taken into account in the event of a revision of this manual. Finally, while the Bureau of the Census is unable to assure complete and detailed answers to all questions relating to problems of tabular presentation, as such, any inquiries submitted on this subject will be answered as completely as limitations in time and personnel permit.

**SUGGESTIONS, COMMENTS, AND
INQUIRIES**

should be sent to

The Director
Bureau of the Census
Washington 25, D. C.

XIV

Chapter 1

CLASSES OF TABULAR PRESENTATION (101-133)

Sec. 1-A. General Classes (101-102)

101. Tabular presentation defined.—Tabular presentation is a means of bringing together and presenting related material or other information in columns or rows. Its object is to present in a concise and orderly fashion information that could not be presented so clearly in any other way.¹ Since the tabular arrangement facilitates reference, comparison, and interpretation of the data, it is particularly useful in presenting large masses of related statistics.

102. Threefold classification.²—In terms of construction, tabular presentation is largely restricted to three general classes of materials: (a) Leader work, (b) text tabulations, and (c) formal statistical tables. Of these, the first two are largely used to illustrate text although both are occasionally used in footnotes.

These three general classes are defined below. In addition, specific descriptions of leader work and of the text tabulation are provided in this chapter. (See secs. 1-B and 1-C, respectively.) These two forms of tabular presentation are not discussed further in this volume. In contrast, the formal statistical table is discussed here (see sec. 1-D) in broad terms only, without reference to construction detail, since the remaining chapters of this manual are taken up with discussion of the formal statistical table as such.

Sec. 1-B. Leader Work (111-114)

111. Definition.—Leader work is a form of tabular work, usually a simple listing without title, boxhead, or rules. Ordinarily, it presents only one or two columns of figures or indicates the relationship between two sets of facts or categories.

For examples of leader work in materials of the Bureau of the Census, see figure 1, page 2. For other examples and details of treatment, see GPO *Style Manual*, pages 135-137.

¹ See United States Government Printing Office, *Style Manual* (revised edition, January 1945), p. 123.

² This threefold classification reflects operating practices of the Bureau of the Census and other mass producers of Government statistics. From a theoretical point of view, the position of the text tabulation as a special class, and even its acceptability as a sound form of tabular presentation, may be open to question.

FIGURE 1.—EXAMPLES OF LEADER WORK

Example A. Classification listing within text:

... Operation expenses for some of the trades are analyzed in the summary tabulation by size groups as follows:

Group number	Business-size group
I	\$2,000,000 and over
II	\$1,000,000-\$1,999,999
III	\$500,000-\$999,999
IV	\$300,000-\$499,999
V	\$200,000-\$299,999
VI	\$100,000-\$199,999

Example B. Classification listing as a footnote to text or to a table:

³ The following is a complete list of the contiguous States for each State:

State	Contiguous States
Alabama	Fla., Ga., Miss., Tenn.
Arizona	Calif., Colo., Nev., N. Mex., Utah
Arkansas	La., Miss., Mo., Okla., Tenn., Tex.
California	Ariz., Nev., Oreg.
Colorado	Ariz., Kans., Nebr., N. Mex., Okla., Utah, Wyo.
Connecticut	Mass., R. I., N. Y.
Delaware	Md., N. J., Pa.
Dist. of Columbia	Md., Va.
Florida	Ala., Ga.
Georgia	Ala., Fla., N. C., S. C., Tenn.

Example E. Statement of relative accuracy:

... The following percentages give a rough measure of the maximum difference that would ever be expected between a detailed figure of the specified magnitude and the corresponding figure that would have been obtained from a complete enumeration:

250,000 persons	2 1/4 percent
100,000 persons	4 percent
50,000 persons	5 1/2 percent
25,000 persons	8 percent
10,000 persons	12 percent
5,000 persons	17 percent

Example C. Conversion listing within text:

... The classes of duration of unemployment that are used, and their equivalents in terms of weeks as reported, are listed below:

Duration in months	Reported duration in weeks
Less than 1 month	Under 3 weeks
1 month	3 to 6 weeks
2 months	7 to 10 weeks
3 months	11 to 14 weeks
4 and 5 months	15 to 23 weeks
6 to 8 months	24 to 35 weeks
9 to 11 months	36 to 49 weeks
12 to 23 months	50 to 99 weeks
24 to 59 months	100 to 249 weeks
60 or more months	250 or more weeks

Example D. Reproduction of schedule inquiries:

... The inquiries for the latest census read as follows:

If you own all or part of this farm—

Was there any mortgage debt on the land and buildings so owned on Apr. 1, 1940? (Yes or No)

Total amount of outstanding mortgage debt on such land and buildings: \$ (Omit cents)

What was the annual rate (contract rate) of interest on the first mortgage debt? (Report fractions) (Percent)

112. General features.—Since leader work does not carry a table number or title, it cannot stand alone; hence it is used largely for illustrative purposes within text. It is introduced by a text statement ending in a colon. Less formal than a table, leader work is an integral part of the text and therefore complicates the make-up problem; that is, its position in a text column cannot be shifted readily to avoid breaking the presentation and running the remainder at the top of the next column or page.

113. Footnotes.—Leader work in text may be footnoted in the same manner as the formal table. If there are two or more separate presentations of leader work within a single text, footnote reference symbols begin again with "1" for each presentation. They are not included in the same numbering series as the footnotes to text. Footnotes to leader work are placed at the bottom of leader work, whereas text footnotes are placed at the bottom of the page. For treatment where both tabular and text footnotes must appear at the bottom of the same column (or page) of text, see section 6-F, paragraph 654.

114. Indexes and tables of contents: Special cases.—Indexes and tables of contents constitute special cases in leader work. They are set in the same style as text; other forms of leader work are governed by the same rules as other tabular work. Indexes and tables of contents are not discussed in this manual. For their treatment, see *GPO Style Manual*,³ page 159.

Sec. 1-C. The Text Tabulation (121-125)

121. Definition.—A text tabulation is a simple ruled table without a table number or title, which usually appears as a part of the text of a report or volume.⁴ The conditions of its insertion in the text are the same as for leader work. Its form, however, is the same as that of the formal table, except that the table number and title are omitted and, in consequence, any headnotes are converted into general or specific footnotes.

122. General features.—Since it lacks an identifying table number or title, the text tabulation cannot stand alone; it must be introduced by an explanatory statement. Because of the disadvantages indicated in paragraph 124, its usefulness for presenting statistics of primary significance tends to be limited. The formal table is more adequate for such a purpose.

In its simplest form, the text tabulation is introduced by a text statement ending in a colon. As an integral part of the text, it com-

³ United States Government Printing Office, *Style Manual* (revised edition, January 1945).

⁴ The form of the text tabulation is also occasionally used in a tabular footnote.

plicates printing (or reproduction typing) make-up in the same way as does leader work. Specifically, it cannot be shifted away from its introductory statement to avoid breaking over to the next column or page.⁵ Footnotes are treated in the same manner as in leader work. (See par. 113.)

Example A. Text tabulation with introductory statement:

. . . The independent stores in this size group are further analyzed in the detailed tables herein . . . into five smaller size groups as follows:

Size group	Stores		Sales	
	Number	Percent	Amount (add 000)	Percent
Independents under \$10,000.....	943,533	100.0	\$3,739,732	100.0
\$5,000 to \$9,999.....	330,545	35.0	2,379,165	63.6
\$3,000 to \$4,999.....	200,272	21.2	788,994	21.1
\$2,000 to \$2,999.....	117,342	12.5	279,972	7.5
\$1,000 to \$1,999.....	145,630	15.4	214,043	5.7
Under \$1,000.....	149,744	15.9	77,558	2.1

123. Tendency toward overuse and misuse.—The text tabulation should be used cautiously since it lends itself readily to overuse and misuse. Two factors contributing to this tendency should be guarded against:

a. The belief that a small text table is necessarily "overburdened" if given a formal title and number. The criteria for use of the title should be the significance and purpose of the table, rather than its size.

b. The ease with which any formal table in text can be made a text tabulation by the omission of the title and number and conversion of the headnote, if any, into a general or specific footnote.

124. Disadvantages to the user.—The form of the text tabulation may cause inconvenience to the user. This is particularly likely when it is substituted for the formal table; that is, when it is used to present summary or other highly significant data.

The figures shown in text tables, including those converted to text tabulations by omission of table title and number, are usually those judged by the analyst as being of primary importance. As such, they are selected from the mass of statistics shown in detailed tables and brought forward into the text where their importance is further emphasized by the text discussion. Such figures tend to be referred to frequently by the user, are commonly cited by him, and are often lifted bodily for incorporation in his own reports.

⁵ This difficulty may be overcome by assigning a table number without a title, thereby transforming the text tabulation into a poorly identified variation of the formal table.

The lack of a table title or table number makes the text tabulation—

- Hard to find again when desired.
- Difficult to cite, or to refer to, in another publication or report, whether of the producer or user.
- Awkward to extract bodily for presentation elsewhere because the user is forced either to supply his own title or to reproduce also the text statements which introduce the data. This problem arises also where a table is numbered but not titled.

125. Release tables without titles: A special case.—In those Bureau of Census releases and advance reports which contain only one table, the table may sometimes be run without a title. This represents a special case of the formal table. It is not a text tabulation as such. This practice is satisfactory only if *all* of the following conditions are present:

- Only one table appears in the release;
- The table title would be practically identical with the release title;
- The text is brief and serves merely to announce the release of the statistics and to introduce the table;
- The basic purpose of the release is to present the statistics shown in that table; and
- The entire release, including the entire table, will appear on not more than two pages.

Sec. 1-D. The Formal Statistical Table (131-133)

131. Definition.—The formal table is the most finished form of tabular presentation. Mechanically, it is distinguished by the presence of an individual table title and number, a formal boxhead, and by the use of tabular rules. Analytically, it is designed to be as self-sufficient as possible. Dependence upon text explanation and discussion is replaced to a maximum extent by use of headnotes, footnotes, careful handling of stub and boxhead phrasing, and precision in tabular arrangement.

132. General purpose and special purpose tables.⁶—In terms of function and purpose, formal tables are commonly classified into two major groups: (a) General purpose or reference tables and (b) special purpose or analytical tables. This classification rests primarily upon theoretical concepts. Few Bureau of Census tables fall strictly into either group. The difference in concept is useful, however, because the central idea, which is function and purpose, is paramount in tabular presentation.

⁶ For a more detailed discussion, see Mudgett, Bruce D., *Statistical Tables and Graphs*, Houghton Mifflin Co., New York City, 1930, p. 30-39, and Walker, Helen M., and Walter N. Durost, *Statistical Tables—Their Structure and Use*, Teachers College, Columbia University, New York City, 1936, pp. 1-3.

a. **General purpose or reference tables.**—Tables in this group are sometimes called source or repository tables. Typically, their function is merely to record the results of a census, survey, or tabulation, with the materials arranged for ready reference. Such a table is not designed to bring out any particular point but serves merely as a repository of information of general interest. Users may extract and rearrange portions of this source material, and develop their own derived statistics, in accordance with their own special purposes or interests.

Although "the census table" is usually cited as the primary example for this group, Bureau of Census tables actually depart from the pure type of general-purpose table in that analytical selection is involved in determining which of the enumerated material is to be tabulated; which of the tabulated material is to be presented; and how the material presented is to be arranged within tables, between tables, and within and among the various published volumes or reports. Furthermore, the many derived figures which are presented (percentages, medians, averages, etc.) reflect a selective process involving a critical analysis. It is broadly true, however, that Bureau of Census tables are intended as repositories of basic information, arranged for ready reference, and designed to provide material for specific analysis by users in terms of their own interests and needs.

b. **Special purpose or analytical tables.**—Tables in this group illustrate or demonstrate a specific analytical point or answer a specific question. Selection of material is limited strictly to that which bears on the problem at hand. Arrangement of data emphasizes those relationships pertinent to the problem and subordinates those which are not.

Few Bureau of Census tables fall into this category except those (especially text tables) published in monographs or other special studies. Summary tables, although analytically invaluable, are not necessarily special purpose or analytical tables of the type described here. This is particularly true of Census summary tables since their purpose usually is to bring together major totals of general purpose data, rather than to present selected data arranged to demonstrate a particular point.

133. Complex and simple tables.—A clear distinction should be drawn between complexity and confusion in table design. A confusing presentation can rarely be justified on the grounds that the materials are necessarily complex.

a. **Complexity of meaning versus complexity in construction.**—Complexity in meaning of data and complexity in table mechanics are not necessarily associated. Some tables are simple in construction but the conceptual aspects of the data may be comparatively hard to grasp.

Example: Figures on births and deaths, by place of occurrence and by place of residence, for cities of a given size group, may be presented in a 4-column table with a city stub. Few tables are simpler in construction, yet the concepts and relationships involved may be confusing to the general reader. Tables of this type sometimes include a headnote explaining how they should be read. (See sec. 5-B, par. 512f.) Again, data on State of birth classified by State of residence can be shown in a simply constructed table, but such a table requires close attention when interpreting the statistics.

Other tables are complex in construction but the data and their relationships are comparatively simple in meaning. This is the type of "complex" table most frequently encountered in the work of the Bureau of the Census. It exists largely because of the need to present the maximum quantity of statistics on the

minimum number of pages. For this reason a large number of small tables, simple in construction, are consolidated into one large table in which the mechanics may become quite complicated.

b. **Nature of the complex table.**—The nature of the complex table, and its relationship to the simple table, may be summarized as follows:

(1) The complex table is usually complex only in terms of arrangement, rarely in terms of meaning.

(2) It is merely a collection of simple related tables brought together under a common title.

(3) The degree of its apparent complexity is in direct ratio to the disparity of relationship between its parts.

(4) When designing a complex table the first requirement is to make clear the meaning of the individual component parts (simple tables); the second is to make clear the exact relationship between them. If these needs can be satisfied in such a way that the results are readily grasped by the reader, the table ceases to be complex.

(5) Overreliance upon mechanical tricks, or carelessness in construction, can make even a simple table too complex for the user to follow.

Chapter 2

THE FORMAL TABLE: STRUCTURAL PARTS AND
TYPES (201-226)

Sec. 2-A. Structural Parts of the Table (201-208)

201. General.—The statistical table is made up of a limited number of structural parts, most of which appear in all formal tables. From table to table the differences between similar parts are mainly the variations required by subject matter and meaning.

The accompanying illustration (fig. 2) shows some of the major structural parts of a statistical table in relationship one to another. This table is a "narrow" table. (See sec. 2-B, par. 216.) The running head and folio (page number) are a function of the page and not of the table, a distinction upon which too much stress cannot be laid.

202. The heading.—The portion of the table appearing above the body; that is, above the top rule of the table. It comprises the table number, title, and headnote. It does not include the folio line which is a function of the page, not of the table. "Heading" is a general classification term. Further discussion is confined to its component parts, as follows:

a. Table number.—An indicator of relative position of the table within a series. Normally, it is omitted in a table standing alone; that is, when only one table appears in the given publication. (See ch. 4.)

b. Title.—A brief statement indicating the nature, classification, and time reference of the data presented, and the political division or physical area or plant to which the data refer. It serves both as a catalog of content and a guide for ready reference. (See ch. 3.)

c. Headnote.—A statement in brackets appearing below the title. It qualifies, explains, or provides information relating to the table as a whole, to an easily identified major portion of the table, or to a *constantly recurring* specific term, abbreviation, or situation. (See ch. 5.)

203. The stub.—That portion of the table, usually at the left, devoted to a listing of line or row captions or descriptions, together with needed classifying and qualifying centered heads and subheads. For discussion purposes, the stubhead is considered a part of the stub although physically it is a part of the boxhead. (See chs. 8 to 11, inclusive.)

a. Stubhead or box.—The column head or caption of the stub. It describes the stub listing as a whole. (See par. 811 and sec. 9-A.)

b. Center head or subhead.—A classifying, descriptive, or qualifying statement applying to all subheads and line captions below it until the next center head of coordinate or superior classification is reached. (See par. 812 and sec. 9-B.)

c. Line caption.—The basic unit of the stub. The descriptive title of the data appearing on the given line. Special cases are colon and dash (read-in) lines. A line caption ending in a colon (:) is a heading that describes, and one ending in a dash (—) is an integral part of, its subentries. (See pars. 813-815 and secs. 9-C to 9-E, inclusive.)

d. Block.—A distinctive segment of the stub consisting of a group of related line captions with their attendant heads and subheads; usually a self-contained unit. A stub, irrespective of length, may consist of a single block; a series of repeated blocks which are identical except for changes in heads; or a series of independent nonrepetitive blocks radically different in content and coverage. "Block" is a term of convenience. As such, it is not discussed further in this manual. However, the term is used, on occasion, in the above sense.

204. The boxhead.—The portion of the table in which are located the individual column heads or captions describing the data in each vertical row or column, together with needed classifying and qualifying spanner heads. (See ch. 12.) Although the stubhead is physically a part of the box, it is classified with the stub for discussion purposes.

a. Column head or caption.—The basic unit of the boxhead. The descriptive title for all data appearing in the given column at the top of which the head appears. It may or may not be qualified, supplemented, or described by one or more spanner heads above it. (See par. 1202b and secs. 12-B to 12-D, inclusive.)

b. Spanner head.—A classifying, descriptive, or qualifying caption spreading across (and above) one or more column heads, or across one or more lower spanners, and applying in varying degree to all columns or subordinate spanners thus covered. The spanner head is the boxhead counterpart of stub center heads and subheads and non-data line captions. (See par. 1202c and sec. 12-E.)

c. Panel.—A distinctive segment of the boxhead consisting of a group of related column heads with their attendant spanners; frequently a self-contained unit. (See par. 1202g.) The panel is the boxhead counterpart of the stub block.

205. The field.—The portion of the table extending from the bottom rule of the boxhead to the bottom rule of the table, and to the right of the stub. The depository of statistical and other information. (See ch. 14.)

a. Cell.—The basic unit of tabular presentation. The intersection of any line caption with any column head. (See par. 1402a and sec. 14-B.)

b. Line.—A horizontal row of cells with a common classification, extending across from a descriptive entry, or line caption, in the stub. (See par. 1402b.)

c. Column.—A vertical row of cells with a common classification, extending down from a descriptive entry, or column head, in the box. (See par. 1402c.)

FIGURE 2.—THE FORMAL TABLE AND ITS MAJOR PARTS

[See pars. 201-206]

HEADING →

TABLE 6.—AGE OF ALL PERSONS AND OF CITIZENS BY SEX, FOR THE UNITED STATES, URBAN AND RURAL: 1940

[Age classification based on completed years]

Area and age	All persons			Citizens ¹		
	Total	Male	Female	Total	Male	Female
UNITED STATES						
All ages.....				769		
Under 5 years.....				26		
5 to 14 years.....				115		
15 to 24 years.....				139		
25 to 34 years.....				178		
35 to 44 years.....				205		
45 and over.....				108		
21 and over.....	988	475	513	567	302	265
URBAN						
All ages.....				453		
Under 5 years.....				15		
5 to 14 years.....				73		
15 to 24 years.....				86		
25 to 34 years.....				104		
35 to 44 years.....				116		
45 and over.....				59		
21 and over.....				328		
RURAL						
All ages.....				316		
Under 5 years.....				11		
5 to 14 years.....				42		
15 to 24 years.....				53		
25 to 34 years.....				74		
35 to 44 years.....				89		
45 and over.....				47		
21 and over.....				239		

STUB →

BOXHEAD

FIELD

¹Includes both native and naturalized.

FIGURE 2.—THE FORMAL TABLE AND ITS MAJOR PARTS—CON.

[See pars. 201-206]

TABLE No.—TITLE OF TABLE

PANEL →

[Headnote]

Stubhead	Spanner head			Spanner head ¹			The column
	Column head	Column head	Column head	Column head	Column head	Column head	
CENTER HEAD							
Total line caption.....				Cell			769
Line caption.....				Cell			26
Line caption.....				Cell			115
Line caption.....				Cell			139
Line caption.....				Cell			178
Line caption.....				Cell			205
Line caption.....				Cell			106
LINE → Line caption.....	Cell	Cell	Cell	Cell	Cell	Cell	567
CENTER HEAD							
Total line caption.....				Cell			453
Line caption.....				Cell			15
Line caption.....				Cell			73
Line caption.....				Cell			86
Line caption.....				Cell			104
Line caption.....				Cell			116
Line caption.....				Cell			59
Line caption.....				Cell			328
CENTER HEAD							
Total line caption.....				Cell			316
Line caption.....				Cell			11
Line caption.....				Cell			42
Line caption.....				Cell			53
Line caption.....				Cell			74
Line caption.....				Cell			89
Line caption.....				Cell			47
Line caption.....				Cell			239
¹ Footnote.							
→21 and over.....	988	475	513	567	302	265	

BLOCK →

LINE →

BRIEF INDEX TO MAJOR DISCUSSION IN TEXT

Heading:		Stub—Continued	
Table number.....	Ch. 4	Stub block.....	Par. 203d
Table title.....	Ch. 3	Stubhead.....	Sec. 9-A
Headnote.....	Ch. 5	Center head.....	Sec. 9-B
Boxhead.....	Ch. 12	Field.....	Ch. 14
Spanner head.....	Sec. 12-E	Cell.....	Sec. 14-B
Column head.....	Sec. 12-B and 12-C	Footnote.....	Ch. 6
Panel.....	Par. 204c	Column.....	Par. 1402c
Stub.....	Ch. 8 to 11	Line.....	Sec. 9-D
Line caption:		Horizontal and vertical rules.....	Ch. 13
Total line.....	Sec. 9-E		
Other.....	Sec. 9-C and 9-D		

206. The footnote.—A statement qualifying or explaining the information presented in, or omitted from, a specific cell, column, line, or group of columns or lines. The use of the reference symbol makes clear the point or points of reference. (See ch. 6.)

In the form of a general note (preceded by "Note:" instead of a reference symbol) it may, like the headnote, qualify the table as a whole. Because of the difference in location, greater length of statement is possible in the general footnote than in the headnote.

207. The source note.—An exact citation of the source of the data presented in the table. It may appear as a headnote or in the form of a general note at the bottom of the table. In either case, it is preceded by the word "Source" as "Source: Department of Commerce, Bureau of the Census; Sixteenth Census Reports, *Population*, vol. I, p. 385." As a matter of convenience, the source citation is discussed in the chapter devoted to the footnote. (See sec. 6-C.)

208. The folio line.—A page characteristic in a formal report. Although not a part of the table, it is referred to here because it is a normal adjunct of the statistical table in its most formal setting. The folio line usually comprises (a) the running head and (b) the folio proper (page number).

Normally, where a running head is used, the folio (page number) appears in the outer corner at the top of the page; the inner corner is left blank. Also, in the normal case, the left-hand running head is the title of the book and the right-hand running head is the title of the chapter, each in brief. Another common practice is to have the left-hand running head provide the chapter title; and to have the right-hand provide a description of the page content.

This manual is unusual in that it carries a running head at the top of the page and the folio (page number) at the bottom. The outer corner of the running-head line, where the folio would normally appear, is taken up by the paragraph number of the first paragraph appearing on the page. Again, in this manual, the left-hand running head provides the chapter title in brief; the right-hand running head gives the section title in brief.

Sec. 2-B. Structural Types of Tables (211-226)

211. Definition.—"Structural type" refers to the classification of tables according to the physical combination of their major structural parts; particularly, the boxhead, stub, and field.

The descriptive terms used in the classification (by major structural type—see par. 212) emphasize its mechanical nature. Thus, the term *measure* is a printing term referring to the width of the type page

or text column. The term *divide* means that the boxhead is split because of space requirements and is continued to the next page, or to a lower deck on the same page.

Available space is the determining factor; so much so, that a table which would be one structural type on a large page, such as "census size," might well become another structural type on a small page, such as "document size." (See fig. 3 for book sizes.)

FIGURE 3.—BUREAU OF THE CENSUS PAGE SIZES

["Wide document" should not be used without specific prior approval of the Graphics Section. "Census size" type page, formerly 43 x 58 picas, was changed to 47½ x 60½ picas, as shown here, effective May 1, 1949; trim size remained unchanged]

Size	Type page				Books trim to—
	In picas		In elite typewriter ¹		
	Width	Depth ¹	Width	Depth ¹	
Census size.....	47½	60½	Spaces 190	Lines 121	9½ x 11¾ inches.
Document size: Standard.....	26½	46	106	92	5¾ x 9¼ inches.
Wide.....	28	46	112	92	5¾ x 9¼ inches.

¹ Page depth as given must include running head if one is used. If bottom folio is used, it is placed in the bottom margin of the page.

² Assumes a 50-percent reduction before printing.

212. Major types.—The major types of tables, according to structure, are as follows: (a) *Fractional-measure*, or *double-up*, of which the half-measure (doubled) is the prototype; (b) *narrow*, the most common form, and its subtype, the narrow-divide; (c) *broad*, or *broadside*, and the broad-divide; and (d) *parallel*, or *double-page spread*, and the parallel-divide. With the exception of the broad-divide and parallel-divide, all these forms are used frequently in Bureau of Census publications. An additional table type, (e) *table without stub*, represents a special case rarely used in Bureau of Census work. Finally, (f) *composite forms* may reflect combinations of features of various major types of tables. (See figs. 4 to 9 for illustrations.)

213. Classification not based on number of pages.—Except for the parallel table, structural type has no effect on the number of pages occupied by the table. Thus, fractional-measure and narrow tables may each occupy a portion of a page, a full page, or a number of pages. The broad table is most presentable in one or more full-page units, but full-page units are not mandatory.

The parallel table,¹ as such, always appears in pairs of facing pages; therefore, it must always start on the left-hand (even-numbered) page.

¹ See pars. 221, 222, and 225.

FIG. 4

THE FORMAL TABLE: STRUCTURE

SEC. 2-B

FIGURE 4.—THE FRACTIONAL-MEASURE TABLE

[Titles, headnotes, and footnotes omitted]

Example 4-A. Half-measure, doubled, with continuous stub.

Kind of wood	Consumption (cords of 128 cubic feet)		Kind of wood	Consumption (cords of 128 cubic feet)	
	1944	1943		1944	1943
Total pulpwood	16,757,400	15,644,500	Hardwoods, total	1,550,710	1,287,983
Softwoods, total.....	13,931,075	13,477,074	Aspen.....	661,717	687,486
Spruce and fir.....	3,290,466	3,633,230	Yellow poplar.....	284,322	149,724
Hemlock.....	2,246,833	2,081,609	Gum.....	160,166	66,617
Pine.....	7,904,650	7,343,615	Chestnut.....	434,332	384,156
Western fir.....	260,643	243,891	Birch.....	8,377	
Western spruce.....	138,483	174,740	Other woods.....	988,873	641,838
			Saw mill waste.....	287,335	237,005

Example 4-B. Half-measure, doubled, with repeated stub blocks.

Area and age	Total	Male	Female	Area and age	Total	Male	Female
Under 5 years.....	53,133	26,823	26,310	Under 5 years.....	23,726	11,974	11,752
5 to 14 years.....	100,801	50,969	49,832	5 to 14 years.....	42,915	21,710	21,205
15 to 24 years.....	92,205	46,236	45,969	15 to 24 years.....	38,089	19,334	18,753
25 to 34 years.....	71,303	41,843	30,460	25 to 34 years.....	36,708	19,393	17,315
35 to 44 years.....	65,285	33,786	31,399	35 to 44 years.....	27,975	15,203	16,772
45 years and over.....	116,634	58,513	58,121	45 years and over.....	41,845	24,015	17,830
Urban	173,981	86,060	87,921	Rural-farm	114,022	60,489	53,533
Under 5 years.....	14,538	7,444	7,394	Under 5 years.....	14,669	7,406	7,164
5 to 14 years.....	29,974	15,076	14,898	5 to 14 years.....	27,012	14,183	13,729
15 to 24 years.....	32,243	15,293	16,850	15 to 24 years.....	21,873	11,507	10,366
25 to 34 years.....	29,582	14,565	15,017	25 to 34 years.....	15,013	7,885	7,128
35 to 44 years.....	24,763	12,014	12,739	35 to 44 years.....	12,457	6,569	5,888
45 years and over.....	42,591	21,558	21,043	45 years and over.....	23,198	12,940	9,258

Example 4-C. Third-measure, tripled.

Year	Quantity, all species (cords)	Cost		Year	Quantity, all species (cords)	Cost		Year	Quantity, all species (cords)	Cost	
		Total (1,000 dollars)	Average per cord			Total (1,000 dollars)	Average per cord			Total (1,000 dollars)	Average per cord
1940.....	13,742,968	109,740	\$7.99	1933.....	6,581,674	48,508	\$7.37	1923.....	5,872,870	95,306	\$16.23
1939.....	10,816,466	84,539	7.82	1931.....	6,722,787	73,524	10.94	1921.....	4,587,179	91,589	20.10
1938.....	9,139,991	74,433	8.10	1929.....	7,645,011	100,054	13.09	1919.....	5,477,832	87,383	15.95
1937.....	10,993,800	82,885	7.97	1927.....	6,750,935	95,452	14.14	1909.....	4,001,807	34,478	8.62
1935.....	7,628,274	58,244	7.64	1925.....	6,093,821	94,340	15.43	1899.....	1,986,310	9,338	4.86

Example 4-D. Fourth-measure, quadrupled.

Year	Tons (thousands)						
1933.....	4,908	1928.....	7,986	1923.....	6,445	1918.....	6,467
1932.....	4,385	1927.....	6,844	1922.....	5,672	1917.....	5,926
1931.....	6,354	1926.....	7,329	1921.....	4,863	1916.....	5,125
1930.....	8,222	1925.....	7,334	1920.....	7,177	1915.....	5,324

SEC. 2-B

STRUCTURAL TYPES

FIG. 5

FIGURE 5.—THE NARROW TABLE

[Titles, headnotes, and footnotes omitted]

Example 5-A. Simple form; nonadditive box and stub.

City	1940	1930	1920	1910	1900	1890	1880	1870
New York.....	7,454,995	6,930,446	5,620,048	4,766,883	3,437,202	2,507,414	1,911,698	1,478,108
Chicago.....	3,396,303	3,376,438	2,701,405	2,135,283	1,698,576	1,099,850	593,185	298,977
Philadelphia.....	1,931,834	1,950,061	1,823,779	1,549,008	1,293,697	1,046,964	847,170	674,022
Detroit.....	1,623,452	1,558,662	993,678	465,766	285,704	205,875	116,340	79,577
Los Angeles.....	1,504,277	1,238,048	576,673	319,198	102,470	50,395	11,183	5,728
Cleveland.....	878,336	900,429	706,841	560,663	381,768	261,353	160,146	92,329
Baltimore.....	859,100	804,874	733,826	558,485	508,957	434,439	322,313	267,354
St. Louis.....	816,048	821,960	772,897	687,029	575,238	451,770	360,518	310,864
Boston.....	770,816	781,188	748,060	670,585	560,892	448,477	362,839	250,526
Pittsburgh.....	671,659	669,817	588,343	533,906	451,512	343,904	235,071	139,266

Example 5-B. Simple form; additive box and stub.

Division	Total number of farms	Acres							
		Under 30	30 to 49	50 to 99	100 to 179	180 to 269	260 to 499	500 to 999	1,000 acres and over
United States	6,096,799	1,519,373	767,289	1,291,048	1,309,741	486,336	453,787	163,694	100,531
New England.....	135,190	41,674	14,662	29,442	28,698	10,976	7,826	1,574	328
Middle Atlantic.....	348,100	84,573	34,650	91,677	92,440	28,138	14,424	1,846	352
East North Central.....	1,006,095	164,996	104,780	293,033	295,624	108,289	58,601	6,895	877
West North Central.....	1,090,574	100,331	62,800	155,998	323,965	158,666	135,183	67,887	27,744
South Atlantic.....	1,019,451	319,359	175,986	233,090	164,778	53,270	37,324	11,367	4,217
East South Central.....	1,023,349	379,072	181,360	232,461	148,731	52,765	28,388	7,752	2,830
West South Central.....	964,370	250,663	138,939	196,166	194,101	64,961	71,448	28,618	19,474
Mountain.....	233,497	47,152	18,756	28,893	34,440	12,738	30,663	27,557	33,388
Pacific.....	276,173	131,553	35,356	35,348	26,964	10,543	14,890	10,198	11,321

Example 5-C. Continuous stub, with panels.

Kind of contractor	Active proprietors and firm members			Employees (average for year)			Total pay roll (1,000 dollars)		
	Total	\$25,000 and over	Under \$25,000	Total	\$25,000 and over	Under \$25,000	Total	\$25,000 and over	Under \$25,000
Special trade contractors	187,373	11,586	175,787	452,413	245,117	207,296	607,207	400,371	206,836
Air conditioning.....	671	187	484	6,764	5,691	1,063	10,715	9,534	1,181
Carpentering.....	32,718	479	32,239	31,282	5,864	25,428	32,872	9,315	23,557
Concreting.....	4,944	365	4,579	18,106	8,809	9,297	19,467	12,247	7,220
Electrical (other than power lines).....	16,121	1,213	14,908	42,390	25,198	17,192	68,749	49,828	18,921
Elevator (installation and repair).....	289	53	236	7,016	6,320	696	15,138	14,211	927
Excavating and foundation.....	446	69	377	2,826	1,692	1,134	2,932	2,042	890
Excavating and grading.....	1,992	182	1,810	7,943	3,457	4,486	8,017	4,075	3,942
Flooring (wood only).....	1,197	92	1,105	3,050	1,388	1,662	4,094	2,287	1,797
Flooring (wood and other).....	402	105	297	3,280	2,652	628	4,811	4,130	681
Flooring (surfacing and resurfacing).....	706	8	698	828	146	682	853	228	626
Heating and plumbing group.....	38,138	3,897	34,241	108,173	62,604	45,569	146,622	101,189	45,433
Insulation.....	508	106	402	6,970	5,673	1,297	10,025	8,707	1,318
Lathing.....	608	49	559	3,253	1,838	1,415	5,276	3,831	1,445
Plastering and lathing.....	811	254	557	7,754	6,164	1,590	11,686	9,940	1,746
Plastering.....	6,045	411	5,634	17,413	8,500	8,913	21,625	12,831	8,794
Ornamental iron.....	607	85	522	2,622	1,839	783	3,926	3,051	875
Painting.....	11,023	213	10,810	13,733	4,116	9,617	16,916	6,729	10,187
Other.....	70,147	3,818	66,328	169,020	93,176	75,844	223,483	146,186	77,297

FIG. 5

THE FORMAL TABLE: STRUCTURE

SEC. 2-B

Figure 5.—THE NARROW TABLE—CON.

[Titles, headnotes, and footnotes omitted]

Example 5-D. With panels and blocks. (Compare with half-measure, doubled, and with narrow-divide.)

Age and sex	Excluding armed forces overseas			Including armed forces overseas		
	Total	White	Nonwhite	Total	White	Nonwhite
TOTAL						
All ages.....	132,563,271	118,602,260	13,961,011	138,100,874	123,790,994	14,309,880
Under 15 years.....	34,561,078	30,184,483	4,376,595	34,561,078	30,184,483	4,376,595
15 to 44 years.....	60,141,378	53,473,624	6,667,754	65,618,360	58,905,840	7,012,820
45 to 64 years.....	27,985,586	25,728,512	2,257,074	28,046,207	25,785,330	2,260,877
65 years and over.....	9,875,229	9,215,641	659,588	9,875,229	9,215,641	659,588
MALE						
All ages.....	63,540,744	56,862,777	6,677,967	69,047,321	62,020,485	7,026,836
Under 15 years.....	17,568,925	15,382,872	2,186,053	17,568,925	15,382,872	2,186,053
15 to 44 years.....	27,094,188	24,080,889	3,013,279	32,540,723	29,182,378	3,358,345
45 to 64 years.....	14,124,085	12,975,061	1,149,024	14,184,107	13,031,280	1,152,827
65 years and over.....	4,753,566	4,423,955	329,611	4,753,566	4,423,955	329,611
FEMALE						
All ages.....	69,022,527	61,739,483	7,283,044	69,053,553	61,770,509	7,283,044
Under 15 years.....	16,992,153	14,801,611	2,190,542	16,992,153	14,801,611	2,190,542
15 to 44 years.....	33,047,210	29,392,735	3,654,475	33,077,637	29,423,162	3,654,475
45 to 64 years.....	13,861,501	12,753,451	1,108,050	13,822,100	12,754,050	1,108,050
65 years and over.....	5,121,653	4,791,686	329,977	5,121,653	4,791,686	329,977

Example 5-E. With field spanners. (Compare with half-measure, doubled, and with narrow-divide.)

Total-assets class (thousands of dollars)	Number of returns	Total assets or liabilities	Total compiled receipts	Compiled net profit or loss	Net income or deficit	Number of returns	Total assets or liabilities	Total compiled receipts	Compiled net profit or loss	Net income or deficit
	Manufacturing					Public utilities				
Total	78,645	70,070.8	91,606.2	10,309.8	10,300.0	18,405	58,472.2	15,739.2	1,918.0	1,916.3
Under 50.....	34,822	686.4	2,009.6	14.0	14.0	10,322	170.2	361.0	5.5	5.5
50 to 99.....	11,939	858.3	2,085.2	67.9	67.8	2,305	163.3	245.0	11.0	11.0
100 to 249.....	13,291	2,122.9	4,698.5	246.2	245.9	2,187	346.5	424.7	28.0	28.0
250 to 499.....	7,175	2,529.8	5,124.9	357.5	357.2	1,115	392.3	407.2	39.2	39.1
500 to 999.....	4,814	3,377.5	6,299.7	541.5	540.8	783	558.1	414.9	39.6	39.5
1,000 to 4,999.....	4,961	10,454.7	16,225.9	1,796.1	1,794.0	944	2,077.3	1,005.4	128.5	128.3
5,000 and over.....	1,643	50,041.2	55,162.4	7,286.7	7,280.2	749	54,765.4	12,880.9	1,666.4	1,665.1
	Trade					Service				
Total	123,439	22,133.9	56,512.4	2,070.9	2,069.0	33,296	4,366.1	4,029.3	188.7	188.1
Under 50.....	76,085	1,452.8	5,665.8	45.7	45.6	23,833	352.3	898.8	6.2	6.2
50 to 99.....	19,542	1,385.1	4,664.8	96.8	96.8	3,897	274.8	421.4	15.2	15.1
100 to 249.....	16,312	2,542.5	7,897.7	220.7	220.5	3,122	453.5	571.3	25.6	25.5
250 to 499.....	6,068	2,111.5	5,946.9	208.4	208.2	1,106	352.1	372.7	21.0	21.0
500 to 999.....	2,870	1,995.0	5,179.1	211.6	211.3	684	474.9	375.1	21.9	21.9
1,000 to 4,999.....	2,133	4,147.1	10,401.7	454.2	453.7	582	1,197.5	769.9	54.7	54.5
5,000 and over.....	429	8,499.9	16,766.4	833.7	832.9	72	1,201.0	628.1	44.1	43.9

16

SEC. 2-B

STRUCTURAL TYPES

FIG. 6

Figure 6.—THE NARROW-DIVIDE TABLE

[Titles, headnotes, and footnotes omitted]

Example 6-A. Repeated stub and continuous box. (Compare with narrow table with panels and blocks.)

Function	Expenditures from own sources				Intergovernmental transfers		
	Total	Federal	State	Local	Federal to State	Federal to local	State to local
Total	24,276	13,873	4,836	5,562	750	136	1,746
General control.....	1,220	439	185	596	4	6	
National defense.....	6,685	6,685					
Highways and streets.....	1,674	205	1,002	467	184	18	341
Agriculture and natural resources.....	1,432	1,288	89	55	25	14	1
Welfare.....	2,956	2,094	548	344	331	1	407
Old-age and unemployment insurance.....	1,974	1,007	961	6	66		
Schools and libraries.....	2,603	189	913	1,521	101	30	736
Interest.....	1,678	1,098	117	463			9
All other.....	4,227	893	1,021	2,313	39	67	252

Function	Intergovernmental transfers—Con.		Expenditures for own functions				
	Local to State	State and local to Federal	Total		Federal	State	Local
			Amount	Percent			
Total	69	36	24,276	100.0	13,027	3,904	7,345
General control.....			1,220	5.0	429	189	602
National defense.....			6,685	27.6	6,685		
Highways and streets.....	4		1,674	6.9	3	849	822
Agriculture and natural resources.....			1,432	5.9	1,249	113	70
Welfare.....	12		2,956	12.4	1,762	484	740
Old-age and unemployment insurance.....			1,974	8.1	941	1,027	6
Schools and libraries.....			2,603	10.7	38	278	2,287
Interest.....	6	12	1,678	6.9	1,110	110	468
All other.....	48	24	4,024	16.6	810	854	2,360

Example 6-B. Repeated box and stub with two decks. (Compare with narrow table with field spanners.)

Country of birth	United States				Urban			
	Total	Percent	Male	Female	Total	Percent	Male	Female
England.....	621,975	5.4	310,299	311,676	489,496	5.4	240,040	249,456
Scotland.....	279,321	2.4	139,019	140,302	230,296	2.5	113,425	116,870
Wales.....	35,360	0.3	18,692	16,668	26,741	0.3	13,545	12,893
Northern Ireland.....	106,416	0.9	47,827	58,589	90,504	1.0	40,166	50,338
Irish Free State (Eire).....	572,031	5.0	244,082	327,949	513,926	5.6	217,023	296,903

Country of birth	Rural-nonfarm				Rural-farm			
	Total	Percent	Male	Female	Total	Percent	Male	Female
England.....	99,311	7.2	51,455	47,856	33,168	3.6	18,804	14,364
Scotland.....	37,901	2.8	19,423	18,478	11,124	1.2	6,170	4,954
Wales.....	6,250	0.5	3,423	2,827	2,369	0.3	1,421	948
Northern Ireland.....	11,400	0.8	5,248	6,242	4,422	0.5	2,413	2,009
Irish Free State (Eire).....	43,672	3.2	19,443	24,229	14,453	1.6	7,626	6,807

17

FIG. 7

THE FORMAL TABLE: STRUCTURE

SEC. 2-B

FIGURE 7.—MULTIPAGE NARROW, CONTINUOUS BOXHEAD

[Titles, headnotes, and footnotes omitted]

Example 7. Common form, with repeated stub (page 1 of 2). (Compare with narrow-divide and parallel tables. A divide table with full-page decks.)

Division and State	All industries	Agriculture, forestry, and fishery	Mining	Construction	Manufacturing	Transportation, communication, and other public utilities	Wholesale and retail trade
United States.....	34,027,905	7,988,343	902,061	2,022,032	8,250,690	2,768,267	5,509,238
New England.....	2,131,734	156,358	4,505	138,883	833,938	153,089	382,538
Maine.....	204,215	38,756	656	11,906	68,180	15,062	31,473
New Hampshire.....	124,072	15,509	308	8,895	40,914	7,602	18,639
Vermont.....	96,163	30,283	1,435	5,535	22,767	6,281	12,264
Massachusetts.....	1,050,678	40,153	1,449	67,043	400,369	84,611	209,298
Rhode Island.....	179,062	5,461	177	12,838	78,960	10,544	33,131
Connecticut.....	477,674	26,146	581	32,066	213,798	28,149	77,793
Middle Atlantic.....	7,059,570	442,137	235,385	453,940	2,210,034	700,217	1,320,225
New York.....	3,521,163	206,354	8,614	235,763	968,453	363,343	739,295
New Jersey.....	1,120,137	47,438	3,461	70,994	413,381	111,847	202,725
Pennsylvania.....	2,418,270	185,285	223,310	140,183	838,200	225,027	378,205
East North Central.....	7,078,388	1,207,887	112,270	373,556	2,412,359	593,701	1,142,140
Ohio.....	1,792,154	252,735	32,102	99,325	652,102	156,869	287,697
Indiana.....	901,556	201,228	13,315	49,315	284,027	72,676	134,705
Illinois.....	2,127,498	279,669	48,715	114,598	637,213	223,327	389,814
Michigan.....	1,427,459	210,543	15,679	71,809	613,840	87,731	207,873
Wisconsin.....	820,672	263,712	2,469	38,767	225,168	53,098	122,151
West North Central.....	3,550,388	1,419,016	45,919	179,616	439,238	287,651	575,023
Minnesota.....	723,505	275,957	7,840	36,828	95,017	58,036	122,114
Iowa.....	692,431	303,819	6,313	35,592	82,197	50,522	107,078
Missouri.....	988,641	298,820	12,326	55,649	179,997	87,961	172,285
North Dakota.....	166,741	106,027	872	4,040	4,272	9,129	21,119
South Dakota.....	167,497	96,382	2,840	6,126	7,965	7,775	21,940
Nebraska.....	345,629	169,532	893	16,749	25,024	29,721	65,158
Kansas.....	466,944	179,649	16,035	24,633	44,796	44,516	75,319
South Atlantic.....	4,578,782	1,426,249	151,829	286,251	958,159	316,154	610,421
Delaware.....	76,200	13,784	99	6,847	22,801	7,380	10,614
Maryland.....	509,990	70,471	3,994	38,723	141,781	52,544	82,339
District of Columbia.....	189,587	568	123	19,379	19,210	17,798	36,776
Virginia.....	722,026	219,856	24,055	47,944	145,772	58,873	86,668
West Virginia.....	424,405	77,211	112,773	20,455	77,479	36,342	46,975
North Carolina.....	896,296	374,670	2,871	46,469	225,490	37,478	100,089
South Carolina.....	466,773	208,957	1,815	22,142	110,708	17,609	49,045
Georgia.....	806,694	348,529	4,031	41,127	148,407	46,533	98,110
Florida.....	484,811	112,213	2,668	43,165	66,513	41,597	100,805
East South Central.....	2,662,419	1,270,839	106,464	129,917	390,876	150,733	286,298
Kentucky.....	698,571	303,512	60,239	35,140	77,144	49,029	78,584
Tennessee.....	728,203	299,548	14,326	42,312	128,931	36,641	94,566
Alabama.....	682,366	311,540	30,024	28,473	120,767	35,240	68,041
Mississippi.....	553,279	356,239	1,876	23,987	54,984	19,523	46,107
West South Central.....	3,279,365	1,329,991	112,944	187,488	371,096	224,338	504,168
Arkansas.....	485,846	283,740	5,845	17,069	53,339	22,899	49,108
Louisiana.....	587,901	292,061	14,474	34,512	87,388	46,259	83,323
Oklahoma.....	530,123	212,690	32,954	26,517	46,854	28,875	84,571
Texas.....	1,675,496	601,500	59,668	100,390	184,615	126,305	287,164
Mountain.....	1,014,363	322,444	79,747	65,668	90,880	95,386	162,343
Montana.....	153,300	58,198	13,407	8,759	12,934	13,711	21,629
Idaho.....	132,748	57,781	6,673	7,133	11,688	9,364	13,810
Wyoming.....	72,703	25,007	6,226	4,121	4,322	8,503	9,154
Colorado.....	271,025	72,097	15,748	17,628	30,612	25,864	48,440
New Mexico.....	112,500	43,901	8,793	8,905	9,923	8,633	16,680
Arizona.....	117,427	30,824	12,701	8,714	9,534	10,493	20,718
Utah.....	120,109	28,451	10,018	7,795	13,913	13,911	21,296
Nevada.....	34,551	6,185	6,212	3,633	1,764	4,907	5,118
Pacific.....	2,672,896	413,422	52,998	206,513	544,010	246,988	526,019
Washington.....	478,325	84,434	5,352	37,006	120,019	46,023	81,206
Oregon.....	303,554	70,411	2,902	20,445	74,184	27,687	51,108
California.....	1,891,017	258,577	44,744	149,053	349,807	178,278	393,705

SEC. 2-B

STRUCTURAL TYPES

FIG. 7

FIGURE 7.—MULTIPAGE NARROW, CONTINUOUS BOXHEAD—CON.

[Titles, headnotes, and footnotes omitted]

Example 7. Common form, with repeated stub (page 2 of 2).

Division and State	Finance, insurance, and real estate	Business and repair services	Personal services	Amusement, recreation, and related services	Professional and related services	Government	Industry not reported
United States.....	1,013,297	787,377	1,133,555	316,063	1,472,453	1,414,069	450,570
New England.....	70,430	51,745	82,137	17,748	168,121	98,949	33,293
Maine.....	3,586	5,179	6,904	1,457	8,253	9,295	4,020
New Hampshire.....	2,314	3,170	4,469	853	5,562	4,440	2,347
Vermont.....	1,657	2,424	2,629	519	3,743	4,318	1,763
Massachusetts.....	39,847	26,533	42,968	9,898	69,702	53,413	15,759
Rhode Island.....	4,790	3,959	7,063	1,620	8,062	10,217	2,030
Connecticut.....	18,236	10,480	18,839	3,501	22,794	17,266	7,365
Middle Atlantic.....	341,574	183,586	290,986	74,541	374,017	369,017	122,832
New York.....	215,108	101,091	172,664	47,221	212,765	182,687	65,807
New Jersey.....	68,442	28,654	43,953	9,678	54,253	46,224	23,037
Pennsylvania.....	66,927	53,841	74,369	17,642	106,999	80,284	34,988
East North Central.....	195,377	167,569	195,903	60,456	293,871	236,011	81,938
Ohio.....	46,642	41,835	49,581	15,573	78,500	67,566	21,337
Indiana.....	19,770	19,983	21,717	6,728	39,420	24,947	12,672
Illinois.....	80,213	57,900	71,875	24,023	94,835	84,193	24,010
Michigan.....	32,014	29,970	34,995	11,455	53,100	45,543	14,900
Wisconsin.....	16,638	17,781	17,735	5,666	33,016	24,372	9,019
West North Central.....	89,173	87,145	85,452	27,440	150,722	118,578	43,505
Minnesota.....	19,096	17,958	17,575	6,238	32,477	25,939	7,403
Iowa.....	14,811	16,418	13,733	4,943	27,773	18,868	10,565
Missouri.....	30,751	24,499	31,725	7,581	42,244	32,143	12,650
North Dakota.....	2,239	3,602	2,453	872	6,109	4,997	1,778
South Dakota.....	2,496	3,871	2,830	1,317	6,996	5,283	1,818
Nebraska.....	9,014	8,838	8,016	2,741	14,168	12,814	3,281
Kansas.....	10,766	11,959	11,220	3,653	20,966	18,534	6,030
South Atlantic.....	92,445	77,572	157,892	34,211	158,579	251,320	57,700
Delaware.....	1,952	1,600	2,815	569	2,812	3,298	1,719
Maryland.....	16,252	11,489	17,842	5,204	22,639	37,316	9,396
District of Columbia.....	9,558	4,539	11,670	2,066	13,997	15,677	2,236
Virginia.....	13,584	11,287	21,601	4,078	23,127	26,644	8,717
West Virginia.....	5,640	6,440	8,598	2,488	16,270	9,764	5,072
North Carolina.....	11,344	12,790	24,348	4,784	25,271	21,634	11,058
South Carolina.....	5,985	5,724	12,280	2,074	12,641	14,400	3,895
Georgia.....	13,811	12,039	26,097	4,382	22,426	32,868	8,334
Florida.....	14,419	11,064	32,641	8,588	19,396	23,989	7,273
East South Central.....	37,159	39,618	67,573	12,698	76,829	66,207	27,857
Kentucky.....	10,693	12,654	16,341	4,060	21,733	21,642	7,900
Tennessee.....	12,930	12,620	22,249	3,621	24,025	18,388	7,995
Alabama.....	9,379	8,488	16,912	2,066	17,112	16,988	7,031
Mississippi.....	4,157	5,956	12,071	1,711	13,250	9,191	4,928
West South Central.....	67,772	71,850	109,652	24,778	121,597	116,066	38,137
Arkansas.....	5,062	7,030	10,355	2,393	13,483	9,608	5,912
Louisiana.....	11,056	10,544	19,673	4,684	20,069	18,072	6,785
Oklahoma.....	11,913	13,369	15,842	4,523	24,871	20,254	7,859
Texas.....	39,741	40,407	63,781	13,178	63,174	68,092	18,680
Mountain.....	19,899	26,735	29,828	9,663	47,788	50,376	13,601
Montana.....	2,362	3,700	3,375	1,115	5,649	6,861	1,606
Idaho.....	1,927	3,216	2,970	1,229	5,387	4,256	1,799
Wyoming.....	900	1,692	1,841	588	2,849	6,782	739
Colorado.....	7,619	8,351	9,054	2,478	14,368	14,653	5,613
New Mexico.....	1,383	2,303	3,344	831	5,637	4,691	1,801
Arizona.....	1,342	3,000	4,060	1,342	6,101	6,798	1,483
Utah.....	3,138	3,138	3,225	1,171	6,580	5,630	1,660
Nevada.....	504	855	1,850	929	1,317	1,807	900
Pacific.....	99,567	82,057	112,132	55,168	135,938	167,377	30,707
Washington.....	13,737	12,644	14,434	4,316	22,174	31,236	5,645
Oregon.....	7,493						

Figure 8.—THE BROAD TABLE

[Titles, headnotes, and footnotes omitted]

Example 8. Multipage broad table with continuous stub. (Need not start on left-hand page; need not appear on facing pages. Where pages face, letterpress practice omits box on lower page if identical with box on upper page. Offset practice usually repeats box on every page because of difficulty of maintaining typing line-up of columns on the two pages. Must be placed on page so title is at left when book is in upright position.)

Industry	Average number employed during year	Number employed on 15th day of month or nearest representative day											
		January	February	March	April	May	June	July	August	September	October	November	December
Abrasive wheels, stones, paper, cloth and related products.....	7,784	7,027	7,131	7,171	7,300	7,291	7,287	2,336	7,405	7,881	8,610	9,177	9,186
Agricultural machinery (except tractors).....	27,806	27,900	29,743	30,142	30,480	29,924	28,344	25,653	25,719	26,033	26,667	25,748	27,314
Aircraft and parts, including aircraft engines.....	48,638	34,433	36,512	38,188	41,101	44,567	48,057	49,832	51,535	52,946	55,289	62,601	67,589
Alloying and rolling and drawing of nonferrous metals, except aluminum.....	38,816	35,418	35,503	35,617	35,452	35,543	35,687	35,812	36,803	40,028	45,103	47,449	47,378
Aluminum products (including rolling and drawing and extruding), not elsewhere classified.....	17,249	14,076	14,699	15,629	16,031	16,320	16,390	16,798	17,204	17,366	19,269	21,239	21,968
Aluminum ware, kitchen, hospital, and household except electrical appliances.....	6,297	6,063	6,194	6,374	6,485	6,382	6,301	6,213	6,313	6,214	6,163	6,305	6,550
Ammunition.....	4,264	3,679	3,862	3,909	3,960	3,924	3,962	4,061	4,236	4,262	5,099	5,381	4,844
Artificial leather and oilcloth.....	3,976	3,869	3,950	3,907	3,855	3,772	3,664	3,791	4,055	4,173	4,277	4,242	4,178
Artists' materials.....	397	397	402	396	377	367	363	366	398	403	440	447	443
Asbestos products (except steam packing and pipe and boiler coverage).....	9,979	9,234	9,371	9,397	9,743	9,538	9,817	9,700	9,952	10,298	10,891	10,927	10,875
Automobile stampings.....	8,597	8,993	8,353	8,375	8,094	7,582	7,495	7,372	7,727	8,860	9,922	10,076	10,812
Automobile trailers (for attachment to passenger cars).....	1,426	923	945	1,125	1,398	1,583	1,639	1,700	1,575	1,474	1,518	1,589	1,643
Automotive electrical equipment.....	17,495	17,217	17,110	16,738	16,768	16,753	16,526	16,041	16,797	18,032	19,210	18,306	20,437
Baking powder, yeast, and other leavening compounds.....	2,334	2,302	2,362	2,337	2,306	2,333	2,334	2,366	2,345	2,333	2,333	2,329	2,334
Baskets for fruits and vegetables.....	8,048	5,737	6,505	7,431	7,817	8,786	9,008	9,693	9,591	9,951	9,180	6,815	6,291
Batteries, storage and primary (dry and wet).....	15,084	13,657	13,726	14,269	13,690	13,616	13,818	14,309	15,504	16,423	17,827	17,359	16,207
Batting, padding, and wadding; upholstery filling.....	4,505	4,425	4,476	4,377	4,232	4,077	4,077	3,833	4,033	4,783	5,308	5,160	6,278
Beauty-shop and barber-shop equipment.....	1,986	1,849	1,785	1,995	2,146	2,071	2,242	1,953	1,885	1,989	2,108	1,957	1,915
Beehive coke.....	1,685	480	475	475	102	395	431	412	421	758	1,434	1,477	1,359
Beet sugar.....	10,410	6,710	3,636	3,631	4,022	4,365	4,541	5,136	8,094	10,949	27,541	27,195	19,092
Belts (apparel) regardless of material.....	4,222	3,858	4,281	4,351	4,280	4,091	4,008	3,899	4,555	4,544	4,547	4,252	3,969
Biscuit, crackers, and pretzels.....	26,173	28,551	29,407	29,519	28,847	29,075	29,261	28,803	28,716	29,907	29,936	29,440	23,907
Blast-furnace products.....	19,537	17,472	17,609	17,803	17,614	16,478	17,735	18,142	18,635	20,880	24,007	24,099	23,907
Blended and prepared flour made from purchased flour.....	706	650	676	673	678	674	696	710	694	762	738	744	758
Blowers; exhaust and ventilating fans.....	3,885	3,333	3,402	3,538	3,792	4,045	4,161	4,136	4,043	4,003	4,045	4,074	4,046
Bluing.....	55	54	52	57	55	57	55	52	52	59	57	53	53
Boat building and boat repairing.....	2,630	2,449	2,621	2,090	3,090	3,396	3,403	2,965	2,444	2,117	2,214	2,816	2,450
Bolts, nuts, washers, and rivets—made in plants not operated in connection with rolling mills.....	14,331	13,417	13,609	13,557	13,326	13,212	13,307	13,477	14,027	14,669	16,177	16,540	16,768
Bone black, carbon black, and lampblack.....	1,574	1,601	1,573	1,579	1,514	1,509	1,562	1,554	1,619	1,619	1,591	1,660	1,684
Bookbinding and related industries.....	25,690	25,707	25,533	25,723	26,469	25,222	24,662	24,997	25,393	26,202	26,221	26,356	26,791
Books: Printing without publishing.....	17,547	17,937	16,818	16,982	16,096	16,775	15,936	17,230	17,244	15,968	15,541	15,857	17,086
Books: Publishing and printing.....	6,091	5,970	6,024	6,030	6,108	6,125	6,067	6,085	6,217	6,198	6,132	6,084	6,022
Books: Publishing without printing.....	135	133	134	136	134	133	136	133	133	134	133	138	138
Boot and shoe cut stock and findings.....	18,845	19,317	20,171	19,908	19,098	17,701	18,072	18,892	18,832	18,629	18,864	18,059	18,600
Bread and other bakery products (except biscuit, crackers, and pretzels).....	201,533	196,123	195,585	197,289	198,820	201,396	202,764	203,880	204,041	203,858	204,121	205,074	204,469
Briek and hollow structural tile.....	29,069	22,457	21,687	24,777	28,514	31,147	33,072	32,798	33,024	32,387	31,608	29,971	27,387
Brooms.....	3,787	3,745	3,795	3,828	3,811	3,739	3,623	3,572	3,736	3,900	3,970	3,927	3,801
Brushes.....	7,891	7,056	7,217	7,350	7,465	7,455	7,528	7,796	8,054	8,278	8,683	8,934	8,861
Buttons.....	10,972	10,083	10,321	10,813	10,433	9,677	10,205	10,459	11,376	11,813	11,968	12,114	11,884
Candles.....	840	785	787	767	745	737	752	710	808	839	968	1,030	1,039
Candy and other confectionery products.....	49,740	48,321	48,371	48,505	45,027	43,511	41,349	40,659	45,577	54,734	59,238	61,510	60,082
Cane sugar—except refineries.....	4,217	2,180	1,431	1,844	1,910	1,861	1,980	2,262	2,626	2,737	9,870	11,298	10,653
Cane-sugar refining.....	14,133	13,531	12,939	13,619	15,592	13,938	13,688	15,315	15,132	13,368	14,818	14,134	13,594
Canned and dried fruits and vegetables (including canned soups).....	98,022	44,056	43,309	47,117	57,133	53,836	55,138	134,857	218,359	230,497	134,414	70,820	51,723
Canned fish, crustacea, and mollusks.....	15,735	11,706	11,654	12,013	12,910	12,910	13,557	12,630	20,411	22,842	22,620	20,384	16,924
Canvas products (except bags).....	3,869	3,026	3,233	3,259	3,850	5,115	5,356	4,423	3,741	3,399	3,695	3,638	3,694
Carbon paper and inked ribbons.....	1,741	1,698	6,703	1,723	1,733	1,733	1,720	1,705	1,705	1,723	1,763	1,838	1,843
Carbon products for the electrical industry, and manufactures of carbon or artificial graphite.....	3,189	3,003	3,018	3,004	2,997	2,979	3,031	3,011	3,105	3,031	3,500	3,759	3,774
Carpets and rugs, wool.....	25,590	24,711	25,342	26,015	25,801	24,713	24,284	24,139	24,768	25,469	26,851	27,588	27,404
Carpets, rugs, and mats made from such materials as paper fiber, grass, jute, flax, sisal, cotton, cocoa fiber, and rags.....	3,137	2,982	3,148	3,253	3,149	2,987	2,862	2,728	2,915	3,288	3,421	3,476	3,490
Carpet yarn, woolen and worsted.....	3,137	3,206	3,340	3,050	3,010	2,869	2,931	2,987	2,973	3,167	3,394	3,508	3,223
Cars and car equipment—railroad, street, and rapid-transit.....	24,523	21,361	24,131	24,230	24,387	23,956	23,062	21,235	21,556	22,744	26,012	29,674	31,926
Cars and trucks, industrial.....	2,732	2,443	2,526	2,586	2,573	2,616	2,635	2,701	2,767	2,761	2,833	3,114	3,179
Caskets, coffins, burial cases, and other morticians' goods.....	12,447	12,504	12,650	12,840	12,842	12,470	12,410	12,096	12,249	12,315	12,398	12,527	12,614
Cement.....	16,488	15,338	15,743	15,871	15,918	16,150	16,277	16,818	17,022	16,942	17,280	17,158	17,132
Cereal preparations.....	23,811	18,441	19,504	21,743	23,372	23,902	25,744	26,170	26,134	25,629	25,943	25,237	23,737
Cheese.....	7,458	6,951	6,965	7,056	7,153	7,556	7,724	7,930	7,870	8,821	7,842	6,655	6,969
Chemicals not elsewhere classified.....	5,009	4,436	4,467	4,688	4,998	5,310	5,598	5,617	5,413	5,278	5,072	4,753	4,642
Chewing gum.....	60,268	57,002	57,538	57,557	57,330	57,675	57,844	53,107	59,202	61,998	65,265	66,887	66,813
	2,627	2,446	2,512	2,597	2,622	2,704	2,712	2,658	2,749	2,738	2,671	2,632	2,483

FIG. 8

THE FORMAL TABLE: STRUCTURE

SEC. 2-B

SEC. 2-B

STRUCTURAL TYPES

FIG. 8

FIGURE 9.—THE

(Titles, headnotes, and

Example 9—A. Normal type, with tracer numbers; stub omitted from right-hand a left-hand page and ending on a right-hand page. Title and headnote center of both pages. Compare with multipage narrow table which repeats stub at left of

Division and State	All contractors				Building contractors ¹					
	Total		Resident		Nonresident		Resident		Nonresident	
	Number of establishments	Value of work performed	Number of establishments	Value of work performed	Number of establishments	Value of work performed	Number of establishments	Value of work performed	Number of establishments	Value of work performed
New England:										
Maine.....	1,877	21,382	1,694	15,851	183	6,031	178	4,227	34	1,680
New Hampshire.....	1,332	17,282	989	10,441	343	6,841	120	3,182	65	1,173
Vermont.....	923	110,615	739	6,624	184	3,991	93	2,412	86	1,800
Massachusetts.....	8,812	46,245	8,483	132,054	329	14,191	1,071	36,513	60	1,979
Rhode Island.....	1,847	30,090	1,557	22,844	280	7,246	309	8,324	59	1,181
Connecticut.....	6,036	99,182	5,397	83,610	639	16,672	816	28,495	118	4,099
Middle Atlantic:										
New York.....	25,155	665,932	24,561	608,657	594	57,275	2,437	124,496	113	8,374
New Jersey.....	9,880	164,399	9,099	123,337	781	36,022	1,002	36,376	131	7,925
Pennsylvania.....	17,814	314,934	17,182	271,758	638	43,176	1,881	70,630	109	7,624
E. North Central:										
Ohio.....	12,815	227,447	12,371	209,807	444	17,640	1,623	67,186	65	3,040
Indiana.....	6,746	116,625	6,158	85,075	583	31,530	771	29,874	97	9,903
Illinois.....	13,395	288,496	12,801	258,942	594	29,554	1,457	60,128	96	7,862
Michigan.....	9,180	179,995	8,815	163,655	365	19,930	1,334	52,228	63	4,256
Wisconsin.....	7,375	112,140	6,993	100,207	382	11,933	816	25,265	58	3,674
W. North Central:										
Minnesota.....	6,179	98,102	5,971	92,536	208	5,566	798	27,786	49	823
Iowa.....	5,428	78,185	5,039	65,192	389	12,993	575	21,207	53	3,355
Missouri.....	6,764	97,322	6,480	84,176	284	13,146	801	22,437	43	1,870
North Dakota.....	669	10,832	652	7,650	114	3,182	65	2,469	20	606
South Dakota.....	817	10,213	793	8,252	115	1,961	95	2,434	15	294
Nebraska.....	2,261	40,346	2,157	31,092	134	9,254	211	8,462	10	286
Kansas.....	3,271	43,605	2,847	29,866	424	13,739	895	10,092	71	5,272
South Atlantic:										
Delaware.....	1,067	17,629	808	13,104	249	4,525	148	3,871	33	1,146
Maryland.....	3,974	79,304	3,278	59,970	696	19,334	588	21,964	123	4,683
Dist. of Col.....	1,420	60,787	1,113	40,412	207	20,375	215	10,711	43	4,783
Virginia.....	3,736	91,321	3,131	64,173	605	27,148	737	23,551	118	7,951
West Virginia.....	1,731	34,778	1,421	24,138	310	10,640	227	8,128	51	3,120
North Carolina.....	2,610	76,164	2,406	63,357	204	12,807	612	27,272	37	2,952
South Carolina.....	1,059	35,149	840	21,939	219	13,210	203	9,446	29	1,975
Georgia.....	2,135	58,717	1,924	46,979	211	11,738	452	17,139	43	7,438
Florida.....	2,782	72,657	2,602	63,512	180	9,145	762	25,288	36	3,249
E. South Central:										
Kentucky.....	3,080	55,988	2,749	42,420	331	13,568	404	15,399	43	3,182
Tennessee.....	2,571	52,628	2,358	42,927	213	9,701	392	16,578	39	1,002
Alabama.....	1,409	48,501	1,224	29,973	185	18,828	310	12,986	28	6,950
Mississippi.....	1,315	40,941	1,109	16,478	206	28,463	204	6,170	21	663
W. South Central:										
Arkansas.....	1,334	24,545	1,117	12,985	217	11,560	201	5,069	28	1,683
Louisiana.....	1,858	71,164	1,635	48,924	223	22,249	331	20,680	37	4,260
Oklahoma.....	2,242	37,305	2,091	30,632	151	6,673	339	11,618	31	1,940
Texas.....	8,380	199,640	8,144	170,138	236	29,402	1,840	55,283	46	7,446
Mountain:										
Montana.....	897	22,703	766	15,903	131	6,800	134	5,455	18	1,711
Idaho.....	873	13,739	704	8,537	169	5,203	171	3,101	22	1,194
Wyoming.....	658	14,439	656	8,121	102	6,318	90	2,499	11	281
Colorado.....	2,112	40,399	2,029	34,785	86	5,611	375	10,488	14	1,656
New Mexico.....	606	15,031	601	10,810	105	4,221	136	3,924	15	506
Arizona.....	945	18,286	864	14,395	81	3,891	290	5,879	6	237
Utah.....	1,148	18,665	1,095	16,308	53	2,357	198	5,499	8	567
Nevada.....	326	9,669	218	6,339	108	3,330	66	1,935	12	525
Pacific:										
Washington.....	3,637	90,678	3,464	78,336	173	12,342	654	14,978	34	1,939
Oregon.....	2,133	37,061	2,029	32,553	104	4,508	377	9,055	15	805
California.....	23,670	408,137	23,566	397,949	104	10,183	5,921	134,395	14	329

PARALLEL TABLE

footnotes omitted)

page. (Parallel tables should always appear in pairs of facing pages, starting on across each pair of facing pages and each line of table must be lined up across right-hand page, and repeats title and headnote on each page.)

Division and State	Highway contractors				Heavy contractors				Special trade contractors			
	Resident		Nonresident		Resident		Nonresident		Resident		Nonresident	
	Number of establishments	Value of work performed	Number of establishments	Value of work performed	Number of establishments	Value of work performed	Number of establishments	Value of work performed	Number of establishments	Value of work performed	Number of establishments	Value of work performed
	22	2,142	9	1,581	7	988	17	1,632	1,487	8,496	123	1,138
	13	1,164	19	2,179	5	330	16	1,485	851	5,775	240	1,804
	16	649	19	1,704	4	125	6	159	627	3,438	123	828
	101	12,192	11	1,907	86	13,596	31	6,825	7,225	69,753	227	3,480
	15	2,356	8	357	9	994	30	4,212	1,224	11,170	193	1,496
	70	11,166	18	1,421	34	3,139	56	2,611	4,477	40,810	447	7,441
	296	48,015	35	6,321	220	108,736	52	15,228	21,608	327,410	394	27,364
	109	14,684	22	1,905	64	9,045	72	15,631	7,924	68,232	556	10,601
	227	37,698	47	13,363	85	20,046	69	11,973	14,989	143,474	407	10,216
	231	24,270	17	1,838	85	14,270	42	6,082	10,432	104,081	320	6,680
	97	12,151	24	2,323	29	4,740	70	10,254	5,261	38,330	397	9,070
	229	32,254	33	1,929	110	26,347	43	11,413	11,005	140,213	382	8,530
	109	13,114	15	872	64	12,235	46	5,942	7,308	85,488	241	5,860
	182	11,777	22	895	64	9,890	47	4,437	5,930	53,275	255	2,927
	244	14,676	16	1,704	44	9,327	25	1,378	4,885	40,747	118	1,661
	144	12,532	24	1,072	31	5,081	48	4,234	4,289	25,772	264	4,332
	34	6,749	21	1,769	41	5,237	47	4,604	5,554	49,763	173	2,943
	26	3,728	11	(9)	1	(9)	11	1,005	460	2,541	72	483
	42	4,042	20	(9)	1	(9)	14	4,378	555	2,693	66	377
	73	5,487	20	2,082	24	5,280	33	5,590	1,849	11,893	71	1,295
	60	6,173	19	2,120	22	2,524	33	2,901	2,370	11,077	301	3,446
	20	1,996	8	(9)	2	(9)	24	4,107	638	7,395	184	2,114
	51	5,260	21	1,871	34	3,899	34	3,827	2,615	28,857	518	8,953
	11	3,543	12	2,366	6	1,309	28	6,040	881	24,849	224	9,311
	63	8,144	29	2,991	46	5,489	36	7,706	2,286	27,009	422	8,500
	31	6,103	15	1,989	17	2,904	26	2,788	1,146	7,003	218	2,793
	32	8,085	25	4,557	25	5,120	25	2,508	1,737	22,879	114	2,790
	30	5,384	28	5,076	4	340	29	4,310	613	6,769	136	1,849
	55	10,175	13	1,208	21	2,825	23	943	1,396	15,650	132	2,149
	43	8,412	9	1,085	39	4,821	22	2,163	1,768	24,991	113	2,649
	61	7,968	22	2,418	12	2,298	33	4,601	2,272	16,755	223	3,363
	33	5,192	21	2,538	17	3,189	28	4,090	1,916	17,998	125	2,062
	20	4,472	31	3,949	12	2,203	25	5,614	882	10,312	101	2,015
	28	3,500	54	16,886	6	1,704	44	7,095	876	4,104	87	819
	15	2,767	21	2,086	14	1,156	51	6,073	887	3,993	117	1,718
	35	5,356	10	2,216	36	5,828	50	9,487	1,233	17,060	126	6,277
	26											

FIGURE 9.—THE PARALLEL

[Titles, headnotes, and

Example 9-B. With stub repeated on right of right-hand page. (Parallel tables and ending on a right-hand page. Title and headnote center across each page. Compare with multipage narrow table which repeats stub at left of right-hand

Division and State	Number of farms					All land in farms (thousands of acres)		
	1920	1925	1930	1935	1940	1920	1925	1930
United States.....	6,448,343	6,371,640	6,288,648	6,812,350	6,096,799	955,884	924,319	986,771
New England.....	156,564	159,489	124,925	158,241	135,190	16,991	15,858	14,283
Maine.....	48,227	50,033	39,006	41,907	38,980	5,426	5,161	4,640
New Hampshire.....	20,523	21,065	14,906	17,685	16,554	2,604	2,262	1,960
Vermont.....	29,076	27,788	24,898	27,061	23,582	4,336	3,926	3,896
Massachusetts.....	32,001	33,454	26,598	35,094	31,897	2,494	2,368	2,005
Rhode Island.....	4,083	3,911	3,322	4,327	3,014	332	309	279
Connecticut.....	22,655	23,240	17,195	32,167	21,163	1,899	1,832	1,502
Middle Atlantic.....	425,147	418,868	357,603	397,684	348,100	40,573	37,491	35,047
New York.....	193,195	188,754	159,806	177,025	159,238	20,688	19,270	17,980
New Jersey.....	29,702	29,671	25,378	29,375	25,835	2,283	1,925	1,758
Pennsylvania.....	202,260	200,443	172,419	191,284	169,027	17,658	16,296	15,309
East North Central.....	1,084,744	1,051,572	966,502	1,083,687	1,006,095	117,735	112,752	110,891
Ohio.....	256,695	244,703	219,296	255,148	233,783	28,516	22,219	21,514
Indiana.....	205,128	195,786	181,570	200,835	184,449	21,063	19,615	19,689
Illinois.....	237,181	225,601	214,497	221,312	213,439	31,975	30,732	30,695
Michigan.....	196,447	192,327	169,372	196,517	187,589	19,133	18,935	17,119
Wisconsin.....	189,295	193,155	181,767	199,877	186,735	22,148	21,851	21,874
West North Central.....	1,096,951	1,111,314	1,112,755	1,179,856	1,090,574	256,973	248,051	235,488
Minnesota.....	178,478	188,281	185,255	205,302	197,351	30,222	30,059	30,913
Iowa.....	213,439	213,490	214,928	221,938	215,318	33,475	32,281	34,019
Missouri.....	263,004	260,473	255,940	278,454	256,100	34,775	32,642	33,743
North Dakota.....	77,690	75,970	77,975	84,606	73,962	36,214	34,327	35,658
South Dakota.....	74,637	73,837	83,157	85,303	72,454	34,636	32,018	36,470
Nebraska.....	124,417	127,734	129,458	135,016	122,062	42,225	42,025	44,709
Kansas.....	165,286	165,879	166,042	174,589	156,327	45,429	45,729	46,976
South Atlantic.....	1,158,976	1,108,051	1,158,468	1,147,183	1,019,451	97,775	88,589	86,363
Delaware.....	10,140	10,257	9,707	10,381	8,994	945	900	901
Maryland.....	47,908	49,001	43,203	44,412	42,110	4,768	4,433	4,374
District of Columbia.....	204	194	104	89	6	6	4	3
Virginia.....	186,242	193,723	170,610	197,632	174,885	18,561	17,210	16,729
West Virginia.....	87,259	90,380	82,641	104,747	99,282	9,570	8,980	8,802
North Carolina.....	269,783	283,482	279,708	300,967	278,276	20,022	18,594	18,055
South Carolina.....	192,693	172,787	167,031	165,504	137,558	12,427	10,639	10,393
Georgia.....	310,732	240,095	255,698	250,544	216,033	25,441	21,945	22,079
Florida.....	54,005	59,217	58,966	72,857	62,248	6,447	5,865	5,027
East South Central.....	1,051,600	1,006,052	1,062,214	1,137,219	1,023,349	78,897	70,607	72,817
Kentucky.....	270,626	258,524	246,499	276,296	252,894	21,613	19,913	19,927
Tennessee.....	252,774	252,669	245,657	273,783	247,617	19,511	17,901	18,003
Alabama.....	266,089	287,631	287,395	273,455	231,746	19,577	16,739	17,555
Mississippi.....	272,101	267,228	312,668	311,683	291,092	18,197	16,053	17,332
West South Central.....	996,088	1,017,305	1,103,134	1,137,571	964,370	173,449	165,013	183,908
Arkansas.....	232,604	221,991	242,334	253,013	216,674	17,457	15,832	16,053
Louisiana.....	135,463	132,450	161,445	170,216	160,007	10,020	8,838	9,355
Oklahoma.....	191,988	197,218	203,866	213,325	197,687	31,952	30,869	32,791
Texas.....	436,033	465,646	495,489	501,017	418,002	114,021	109,674	124,707
Mountain.....	244,109	233,892	241,314	271,392	233,497	117,337	131,689	157,450
Montana.....	57,677	46,904	47,495	50,594	41,823	35,071	32,786	44,659
Idaho.....	42,106	40,592	41,673	45,113	43,663	8,376	8,116	9,347
Wyoming.....	15,748	15,512	16,011	17,487	15,018	11,809	10,663	23,525
Colorado.....	59,934	58,020	59,956	63,644	51,436	24,462	24,167	28,876
New Mexico.....	29,844	31,687	31,404	41,369	34,105	24,410	27,850	30,822
Arizona.....	9,975	10,802	14,173	18,824	18,468	5,802	11,065	10,527
Utah.....	25,662	25,992	27,159	30,695	25,411	5,050	5,001	5,613
Nevada.....	3,163	3,883	3,442	3,696	3,573	2,347	4,091	4,081
Pacific.....	234,164	265,587	261,733	299,567	276,173	56,153	54,258	60,525
Washington.....	65,288	79,287	70,904	84,381	81,686	13,245	12,610	13,534
Oregon.....	60,206	55,911	55,153	64,826	61,829	13,542	14,131	16,549
California.....	117,670	136,409	135,676	150,360	132,668	29,366	27,517	30,443

TABLE—Continued

footnotes omitted)

should always appear in pairs of facing pages, starting on a left-hand page pair of facing pages and each line of table must be lined up across both pages.)

All land in farms (thousands of acres)—continued	Average acreage per farm					Percent of total land area represented by all land in farms					Division and State	
	1935	1940	1920	1925	1930	1935	1940	1920	1925	1930		1935	1940
1,054,515	1,060,852	148.2	145.1	156.9	154.8	174.0	50.2	48.6	51.8	55.4	55.7	U. S.
15,453	13,371	108.5	89.4	114.3	97.7	98.9	42.8	40.0	36.0	39.0	33.1	N. E.
4,722	4,223	112.5	103.2	119.0	112.7	108.3	28.4	27.0	24.3	24.7	21.3	Maine.
2,116	1,939	126.9	107.4	131.5	118.6	109.3	45.0	39.1	33.9	36.6	31.3	N. H.
4,043	3,667	145.7	141.3	155.5	149.4	155.5	72.5	67.2	66.7	69.2	61.8	Vt.
2,108	1,938	77.9	70.8	78.3	62.6	60.8	48.5	46.0	39.0	42.7	33.3	Mass.
3,808	222	81.2	79.0	84.1	71.1	73.6	48.6	45.3	40.9	45.1	32.8	R. I.
2,080	1,512	88.8	78.8	87.4	64.7	71.5	61.6	59.4	48.7	67.4	48.2	Conn.
36,455	33,639	95.4	89.5	98.0	91.7	96.6	63.4	58.6	54.8	57.0	52.3	M. A.
18,686	17,170	106.8	102.1	112.5	105.6	112.1	67.7	63.2	59.0	61.3	56.0	N. Y.
1,914	1,874	76.8	64.9	69.3	65.2	72.6	47.5	40.0	36.6	39.8	38.9	N. J.
16,555	14,594	87.3	81.3	88.8	82.9	86.3	61.5	56.8	53.4	55.3	50.6	Pa.
116,957	113,665	108.5	107.2	114.7	107.9	113.0	74.9	71.7	70.6	74.4	72.5	E. N. C.
22,858	21,908	91.6	90.8	98.1	89.6	93.7	90.2	85.2	87.7	83.2	83.1	Ohio.
20,519	19,801	102.7	101.7	108.4	102.2	107.3	91.3	86.3	85.3	88.9	85.5	Ind.
31,661	31,083	134.8	136.2	143.1	136.9	145.4	89.1	86.7	85.6	88.3	85.7	Ill.
18,460	18,038	96.9	93.8	101.1	93.9	96.2	51.7	49.0	46.5	50.2	49.4	Mich.
23,459	22,676	117.0	113.1	120.3	117.4	122.5	62.6	61.8	61.0	66.3	65.3	Wis.
273,077	274,423	234.3	223.2	238.6	231.4	251.6	78.6	75.9	81.9	83.5	84.0	W. N. C.
32,818	32,607	169.8	169.9	181.4	165.2	168.4	58.1	58.9	61.3	63.4	63.7	Minn.
34,539	34,149	156.8	155.9	158.3	154.8	160.1	94.1	93.6	95.6	96.6	95.3	Iowa.
35,055	34,740	132.2	125.3	131.8	125.9	136.6	79.1	74.2	76.6	79.7	78.4	Mo.
39,118	37,936	466.1	451.9	495.8	462.4	512.9	80.6	76.4	89.1	87.1	84.6	N. Dak.
32,102	39,474	464.1	402.6	445.4	544.8	70.4	65.1	74.1	75.4	80.6	80.6	S. Dak.
46,610	47,344	359.4	329.0	345.4	348.9	391.1	85.9	85.0	84.8	86.5	86.5	Nebr.
48,010	45,174	274.8	263.6	275.0	275.0	308.2	86.8	86.8	89.8	91.7	91.7	Kans.
95,987	92,555	84.4	79.9	81.6	83.7	90.8	56.8	51.4	50.2	55.7	53.9	S. A.
921	896	93.1	87.7	92.8	88.7	99.6	75.1	71.6	73.3	70.7	70.7	Del.
4,384	4,198	99.8	101.3	98.7	97.9	74.8	69.7	68.8	68.9	66.3	66.3	Md.
9	2	27.8	27.4	29.5	31.5	36.0	14.8	9.6	7.7	7.1	6.0	D. C.
17,645	16,445	99.7	88.8	98.1	89.3	94.0	72.0	66.8	64.9	68.5	64.4	Va.
9,424	8,909	109.6	99.4	106.5	90.0	89.7	62.2	58.4	57.3	61.3	57.8	W. Va.
19,936	18,845	74.2										

A "parallel table" occupying an odd number of pages is a contradiction in terms. Usually, it represents a divide table incorrectly handled or is composite in form.

214. Narrow table as the norm.—The narrow table represents the normal case from which all other types are derived. It is not only the most common type; it is the simplest in basic pattern and most readily understood. When defining all other types, the narrow table is assumed as the point of departure.

In general, the deviations represented by the other types are determined by space requirements. Thus, if the number of columns (in an assumed normal table) is too few for the page width, the table may become a half-measure, doubled; third-measure, tripled; etc. If the number of columns is too great for the page width, the table may become a narrow-divide, broad, or even parallel table, depending upon other factors in construction and upon the size of the page.

SPECIFIC TYPE OF TABLES DEFINED (215-226)

215. Fractional-measure tables.—A form used when the table is not wide enough to be spread across the page and is narrow enough to double up (or triple up, etc.) both the stub and the columns. (See fig. 4, examples 4-A to 4-D.) The half measure, doubled, is the typical case.

a. The *half-measure, doubled*, is set or typed half the width of the type page and doubled up with a parallel vertical rule between the two sections. Similarly, the *third-measure, tripled*, is set one-third page width and tripled up; the *fourth-measure, quadrupled*, is set one-fourth page width and quadrupled up, etc.

b. Both box and stub must be doubled up to fall into this group. If the stub is not included in the doubling up, the result is a form of narrow table; it is not a fractional-measure table.

c. The stub may be continuous or in repeated blocks. (See examples 4-A and 4-B, respectively.) If the stub is in repeated blocks, one or more blocks may appear in each table section.

216. Narrow table.—The "normal" or "upright" table; the most common and desirable type. It permits many variations in construction. (See fig. 5, examples 5-A to 5-E.)

a. It is called "narrow" or "narrow-measure" because printing runs across the narrow dimension of paper. It contrasts with the "broad" or "broad-measure" table in which printing runs the broad or long way of the page.

b. It is set or typed full width of type page.

c. It has a single stub appearing at left and applying across entire table, and a single boxhead (simple or compound) at top of table applying down full depth of table or table page.

d. The narrow table with field spanners should not be confused with the narrow-divide table. (See example 5-E.) In a narrow-divide, the entire boxhead appears for each deck. (See fig. 6, examples 6-A and 6-B.)

217. Narrow-divide table.—This form is used typically when the number of columns is found to be too great for the width of the page but the stub is shallow, thus permitting the box and stub to be repeated below on the same page in the form of one or more additional "decks." (See fig. 6, examples 6-A and 6-B.)

a. The table is broken about halfway across figure columns and the remaining columns are brought under the first "deck" with both stub and box repeated. The same process can be continued to create three or more decks.

b. The repetition of box for each deck includes the entire box, not merely that portion which differs from the box of the upper deck. Otherwise the table becomes a narrow table with field spanners. (See fig. 5, example 5-E.)

c. For each deck the parallel rule is repeated at the top of the box, and the single rule below the box extends through the stub as at the top of the table.

d. The repetition of the stub includes the wording of the stub box.

e. In divide tables, the spanner at the top of the table applies only to the upper deck. It has no more influence on the lower decks than any portion of the boxhead above one group of columns has on any adjoining group of columns which it does not cover. Contrast this with a narrow table with field spanners (fig. 5, example 5-E) where the column heads at the top of the table apply all the way to the bottom of the table, with the field spanners providing additional qualifications for the affected blocks.

218. Multipage narrow table with continuous boxhead.—This is not a formal structural type but it warrants special attention to avoid confusion with the parallel table which it resembles. The common form is the narrow table with a continuous boxhead (two or more pages required to complete the boxhead classification) and a 1-page stub repeated on each continued page. (See fig. 7.) Basically, it is a "divide" table with each individual page constituting a deck. Distinctions between this form and the parallel table are as follows:

a. **Paging.**—It may comprise an even or odd number of pages; need not appear on facing pages; may start on either a right-hand or left-hand page. The *parallel table* must comprise an even number of pages; must appear on facing pages; must start on a left-hand and end on a right-hand page.

b. **Table title.**—The title is repeated separately on each page, followed by "—Continued" on continued pages. In a *parallel table*, the title and headnote run across, and are centered upon, each pair of facing pages; the title is followed by "—Continued" on continued *pairs* of pages.

c. **Stub.**—The stub is repeated on each page, always appearing in its normal position at the left of the field. In a *parallel table*, the stub normally appears on the left-hand page only; tracer numbers appear at the left of the even-numbered (left-hand) pages and at the right of the odd-numbered (right-hand) pages. In a parallel table with repeated stub (a special form) the stub on the odd-numbered (right-hand) page is always at the right of the field, never at the left.

d. **Specific rule.**—If the stub is placed at the left of the right-hand page, the table is not a parallel table, and the title should not be centered across the facing pages.

219. Broad table.—This form is used when the table is too wide for the normal width of the page, cannot be run as a narrow-divide, and is not wide enough to make a parallel table necessary. (See fig. 8.) The broad table should be avoided where possible since the publication must be rotated to read it.

a. It is set or typed the long or broad way of the page.

b. Its width is less than normal page depth because the page folio line retains its normal position (thereby running at right angles to the table) and must be allowed for.

c. It is invariably placed so it can be read after the book is rotated 90 degrees *clockwise*. That is, regardless of whether it falls on the left-hand or right-hand page, the top of the table is always at the left when the book is in the normal upright position. The reason for this becomes apparent where a broad table continues over several pages. Specifically —

If the top of the table is placed at the left (as it should be), the upper and lower pages (facing pages) may be read in proper sequence from top to bottom. For example, if the facing pages are pages 16 and 17, the rotation clockwise will place page 16 (the left-hand page) on the top and page 17 (the right-hand page) on the bottom.

If the top of the table is placed at the right, it will be found that the bottom page must be read before the top page if the statistics are to be read in proper order. That is, after the necessary rotation *counterclockwise*, page 16 will be on the bottom and page 17 on the top, an unnatural arrangement for sequential reading.

220. Broad-divide table.—Generally, this form is undesirable. The figure columns are broken the same way as for a narrow-divide table, but the table runs the broad way of the page. (Not illustrated—rarely used.)

221. Parallel table:² Normal case.—This form is used where the table is so wide that it spreads across two pages with no room for repeating the stub on the second page. It should be avoided where possible. It is hard to read and the requirement that it appear on facing pages complicates make-up and table sequence (fig. 9, examples 9-A and 9-B). The following statements refer to the normal case of the parallel table. (See example 9-A.)

a. It is printed on facing pages with each pair of facing pages considered a single unit; must begin on a left-hand page.

b. The title and headnote run across the two facing pages.

² *Parallel* is a term which, in *printing*, refers to the treatment given any pair of facing tabular pages whereby a stub appears on the left-hand page, but is omitted on the right-hand page. Tracer numbers are run on the outside of both left and right pages to aid the user to keep his place while reading across. However, in the field of *tabular presentation* this term is descriptive of a table which consists solely of facing pages run in parallel. Accordingly, in this manual, the term *parallel table* is limited to tables set entirely in parallel; that is, in pairs of facing pages. (See par. 225.)

c. The figure columns are broken at a convenient, logical, or physically practicable point. The columns to the right of the division are printed on the right-hand or odd-numbered page.

d. The stub appears only at the left edge of the left-hand (even-numbered) page. Tracer numbers are assigned to each entry line if the stub is not repeated on the facing page. The tracer numbers appear at the left of the stub on the even page and on the right-hand side of the odd or facing page (example 9-A).

e. *Note:* If the stub is repeated in the normal position at the *left* side of the odd or facing page, the table is a multipage narrow table (fig. 7). It is not a parallel table and the title and headnote should not be run across the two facing pages.

222. Parallel table: Special type.—In a special type of parallel table, the stub is repeated at the right-hand side of the right-hand (facing or odd-numbered) page (fig. 9, example 9-B). In this case, tracer numbers are not used.

This form (with repeated stub placed at the right) should be used sparingly. Its justification rests upon the importance of horizontal continuity across the page break, not upon space demands. Obviously, if the stub appears at all, there is as much room for it on the right as on the left.

a. It is *most justified* where it is imperative that the specific columns on either side of the space break be interpreted as a coordinated unit.

b. It is *rarely justified* where the columns separated by the page break are components of a simple coordinate series. Here, the additional separation caused by insertion of the repeated stub in normal position on the facing page is probably less harmful than the necessity of tracing the line back from a stub appearing at the right-hand edge of the page.

c. It is *least justified* where the data presented on each page constitute independent, though related, presentations, such as a page of data for white families facing a page of data for Negro families.

This injunction is not intended to discourage presentation of corresponding figures for related universes on facing pages. In itself, this is a sound practice. However, this objective may be accomplished by placing the stub on both pages in its proper position and providing a continued title on the right-hand page.

In the example cited above (white families and Negro families), confusion may arise if the data for white and Negro families require two pages for each race group. Here, the parallel presentation will require an examination of alternate pages to obtain white data and alternate pages to obtain Negro data. In effect this means that alternate pages of two distinct tables have been interleaved.

223. Parallel-divide table.—This form is the same in principle as the narrow-divide but the decks run all the way across the two facing pages. Tracer numbers are used as in parallel tables. (Not illustrated—rarely used.)

224. Tables without stubs.—This is a special form used largely for one-dimension listings; that is, listings intended to be read vertically only, not horizontally. Such tables, usually confined to text, may

run full width of the text column; or they may run full width of the page, across both columns. However, if the table has only a few columns, it may be run indented on both sides, thus:

TABLE A.—HOUSE NUMBERS ON OAK STREET

East side	West side
5101	5102
5103	5104
5105	5106
5109	5108
5113	5110
5115	5112
5117	5114
5119	5122
5121	5124
5123	5128

225. Composite forms.—This group comprises tables which include features of several of the standard types as outlined above. Thus, a table with three decks may start out as a narrow-divide and end as a third-measure, tripled. Again, a 3-page table may begin as a narrow table (first page) and have the next two pages (facing each other) set in parallel. Just as the first example is not a narrow-divide table, as such; neither is the second a parallel table, in the sense that the term is used here. Both tables are composite.

In general, composite forms are undesirable because of the need for the user to find his way through a shifting pattern. In practice, they sometimes are necessary, particularly in mass-production work where the possibilities for space-saving (an important factor in printing costs) must at times outweigh the reading problems of the user.

226. Tables in rules.—In general, tables should not be enclosed in rules; that is, vertical side rules should not be added.³ The practice of enclosing an entire table in a box (including title, headnote, and footnotes) also should be avoided.

³ A possible exception is the use of vertical side rules to set off tables without stubs. (For example, see GPO *Style Manual*, p. 133.) Apparently, the purpose of the vertical side rules is to warn the reader that the first column is *not* a stub column. The style of the Bureau of the Census does not include use of side rules in such instances.

Chapter 3

THE TABLE TITLE (301-374)

Sec. 3-A. General (301-309)

301. Definition.—The table title, placed at the top of the table, is a brief statement of the nature, classification, and time reference of the information presented, and the political division, geographic area, or physical plant to which the statistics refer. These points are sometimes referred to as the "What," "How classified," "Where," and "When" of the table.

302. Function.—The title's function is twofold. It provides a catalog of table content and serves as a purpose indicator and reference guide. The wording and arrangement of the component parts of the title depend upon the comparative significance of these two factors in the given presentation.

303. Component parts or "title segments."—Each title should indicate, specifically or by implication, four basic characteristics of the tabular data. (See below.) The statements on these points, and other points peculiar to the given table, are joined together by appropriate connectives and punctuation to form the title as a whole. These component parts may be conveniently referred to as "title segments."

a. Universe segment.—Specifies the nature and limits of the group or subgroup covered by the table. (See sec. 3-C.) *Examples:* WHITE EMPLOYED WORKERS; GENERAL REVENUE; IMPORTS OF MERCHANDISE; DOMESTIC ANIMALS ON FARMS; MATERIALS CONSUMED; INDEPENDENT STORES; etc.

b. Classification segment.—Specifies how the universe data are classified and cross-classified. (See sec. 3-D.) *Examples:* BY AGE AND SEX; BY SOURCE; BY COMMODITY GROUPS AND ARTICLES; BY KIND AND AGE GROUPS; BY KIND, QUANTITY, AND COST; BY SIZE OF STORE; etc.

c. Area or space segment.—Specifies the political division or subdivision, geographic area, or physical plant to which the data refer. (See sec. 3-E.) *Examples:* FOR THE STATE; FOR CITIES OF 500,000 OR MORE; FOR THE UNITED STATES; etc.

NOTE.—Throughout this manual, examples of titles appear in caps and small caps, the style of the Bureau of the Census appropriate for document-size pages. For discussions of capitalization, indent, and type size for table titles, as such, see paragraphs 308 and 309. In general, titles would appear in caps on census-size pages, except the word "Table" would be in caps and lower case. (See fig. 10, p. 34.)

d. **Time-reference segment.**—Specifies the point in time to which the data refer. May be a single date, a time period, or a series of dates or time periods. (See sec. 3-F.) *Examples:* 1940; 1935 TO 1940; 1940 AND 1930; 1910, 1920, AND 1940; WEEK OF MARCH 24 TO 30, 1940; etc.

304. Relationship between content and arrangement.—The wording of each title segment reflects the content of the table. The order in which they appear reflects the purpose or conditions of presentation. Hence, the cataloging function of the title is fulfilled by the segment wording; the reference-indicator function is provided for by the title arrangement.

For a given table there may be a number of equally correct arrangements of the title. A primary problem in title writing involves selection of the most suitable arrangement for the given purpose and under given presentation conditions. Only rarely is there a single title wording or arrangement that is "correct" for all purposes and under all conditions.

Example: Assume a table showing the population by age, race, and sex, each cross-classified with the other. The following listing shows several possible titles for such a table. Each of these is "correct" under the given conditions although the tabular content is identical for all these tables.

a. **AGE, BY RACE AND SEX . . .** Here, the purpose of the table is to show an age distribution by race and sex. Note, however, that if age data were shown in all tables in the publication, the difference between tables might well be stressed by making the title read **RACE AND SEX, BY AGE . . .**

b. **RACE, BY AGE AND SEX . . .** An appropriate title if the table were presented as part of a discussion of racial characteristics in order to show age and sex differentials for each race.

c. **NEGROES BY AGE AND SEX, WITH COMPARABLE DATA FOR TOTAL POPULATION AND OTHER RACE GROUPS . . .** Here, the same data are being used in a report on the Negro population. The interest lies in showing data for Negroes with the other information inserted primarily to lend significance to the Negro statistics.

305. Treatment of individual segments.—Both construction and content of individual segments will vary widely in accordance with the customs and needs of the general field, the nature of the given report, and differences in content among the tables in the group and the content of the given table.

The various analytical factors are too numerous and varied to permit establishing specific rules or even to provide a series of specific examples. In sections 3-C to 3-F (following) a few observations are made concerning practices generally in vogue. In addition, a few general statements on content are included.

306. Coverage and brevity.—Whether the title be written as a catalog of content or as a reference guide, and irrespective of the title-

writing scheme employed, it must reflect the material shown in the table.

a. **Content may be understated; never overstated.**—The table should contain that which the title advertises. The table may contain more; it should never contain less. The outstanding exception to this is where the headnote is used to qualify the title, but its use to qualify overstatement should be kept to a minimum. Hence, if a question arises concerning overstatement or understatement, the only safe course is *understatement*.

b. **Titles should be brief, but adequate.**—Bureau of Census table titles are frequently criticized because they are (1) too long, and (2) not sufficiently descriptive. To an extent, both criticisms are justified. More important, however, is the basic conflict exemplified in these criticisms.

Title brevity and completeness of coverage can be combined easily for simple tables; that is, those with few classifications. It is not easy for the more complex materials where the difference between tables in a series may lie in exact detail of classification for a closely defined subgroup; or the comparative significance of the data may depend upon the combinations shown, rather than upon the individual classifications as such.

Minor sacrifices in coverage are warranted in order to shorten titles. In general, a less complete title which will be read is better than a complete title which will be ignored because of length or complexity.

307. Title wording.—Table titles are written in telegraphic style, not in complete sentences. Verbs are commonly omitted, as are articles and other parts of speech not absolutely essential to understanding. Classification statements (except those relating to area) are expressed in the singular unless the plural form is essential to clarity. Standard conventionalized phrasing should be used wherever possible. (See par. 373 for terminology in percentage titles.)

All of these factors, and other peculiarities of title writing, place a heavy premium on—

- a. Careful and consistent use of terms employed,
- b. Meticulous phrasing, and
- c. Precise punctuation.

308. Capitalization and indent of titles.—In general, the title of the statistical table should be displayed in a distinctive manner. This serves to emphasize its function and to differentiate it from the headnote and the remainder of the table.

a. **Capitalization.**—Census Bureau practice is characterized by the use of full capitals (caps), or of caps and small caps, for the title proper, with the choice made dependent upon the width of the given table. (THIS STATEMENT IS IN FULL CAPS; THIS IS IN CAPS AND SMALL CAPS.)

Where full caps are used, the word "Table" is shown in lower case and the table number appears in boldface, where available, as **Table 5.—POPULATION. . . .**

Where caps and small caps are used, the word "TABLE" is also printed in caps and small caps, with boldface for the table number, as **TABLE 5.—POPULATION. . . .**

Where small caps and boldface are not available, as where the standard typewriter is employed for typewriter-offset work, full caps are used for the title proper; the word "Table" is shown in lower case; and the table number is in standard numerals, as Table 5.—POPULATION. . . . (See fig. 10, examples A-4 and B-4.)

b. Indent.—In Census Bureau practice, the indent of titles is dependent upon the number of lines in the given title. (See fig. 10.)

(1) **One-line title.**—Center over table.

(2) **Two-line title.**—Run the first line flush to edge of table, both left and right; center the second line.

(3) **Three-line title.**—Titles occupying more than two lines are undesirable since they are hard to read. However, where a three-line title appears, the first line is run flush, left and right. The second line is indented 2 ems (4 typewriter spaces) at the left and runs flush to the edge of the table at the right. The third line also is given a 2-em indentation at the left; it is permitted to run short (left dangling) at the right.

c. Division of words.—In titles, as in text material, word divisions are appropriate at the end of title lines, as necessary. Normal rules for syllabication should be applied.

FIGURE 10.—TABLE TITLES: CAPITALIZATION AND INDENT

Style A: On tables less than 30 picas (5 inches) in width as printed:

Example A-1. One-line title:

TABLE 15.—POPULATION OF THE UNITED STATES: 1790 TO 1940

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Example A-2. Two-line title:

TABLE 16.—AGE OF THE POPULATION, BY MARITAL STATUS, RACE, AND SEX, FOR THE UNITED STATES: 1940 AND 1930

Example A-3. Three-line title (letterpress):

TABLE 17.—AGE OF THE POPULATION, BY MARITAL STATUS, RACE, AND SEX, FOR THE UNITED STATES, URBAN AND RURAL, AND FOR CITIES OF 100,000 INHABITANTS OR MORE: 1940

Example A-4. Three-line title (typewriter-offset): Note that all lines except the first are indented 4 typewriter spaces. The style shown here is identical with that shown in example B-4 in Style B; the only difference is in the width of the title; that is, in the assumed width of the table.

Table 18.—AGE OF THE POPULATION, BY MARITAL STATUS, RACE, AND SEX, FOR THE UNITED STATES, URBAN AND RURAL, AND FOR CITIES OF 100,000 INHABITANTS OR MORE: 1940

Figure 10.—TABLE TITLES: CAPITALIZATION AND INDENT—Con.

Style B: For titles of tables 30 picas (about 5 inches) or more in width as printed:

Example B-1. One-line title:

Table 15.—POPULATION OF THE UNITED STATES: 1790 TO 1940

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Example B-2. Two-line title:

Table 16.—AGE OF THE POPULATION, BY MARITAL STATUS, RACE, AND SEX, FOR THE UNITED STATES, URBAN AND RURAL: 1940 AND 1930

Example B-3. Three-line title (letterpress):

Table 17.—AGE OF THE POPULATION, BY MARITAL STATUS, RACE, AND SEX, FOR THE UNITED STATES, URBAN AND RURAL, FOR PRINCIPAL METROPOLITAN DISTRICTS, AND FOR CITIES OF 100,000 INHABITANTS OR MORE: 1940

Example B-4. Three-line title (typewriter-offset): Note that all lines except the first are indented 4 typewriter spaces. The capitalization shown should be employed on all typewriter-offset work where small caps and bold face are not available, irrespective of width of table. The line-up at right is achieved by insertion of extra typewriter spaces between words as necessary to make lines come out even; this technique should not be used for the last line, which is always permitted to run short.

Table 18.—RELATIONSHIP TO HEAD OF HOUSEHOLD OF NATIVE WHITE WOMEN 18 TO 64 YEARS OLD, BY LABOR FORCE AND EMPLOYMENT STATUS AND NUMBER OF CHILDREN UNDER 10 YEARS OLD, FOR METROPOLITAN DISTRICTS, AND FOR SPECIFIED CITIES: MARCH 1940

309. Type size.—Where different type sizes are available, table titles are normally shown in type one size larger than the size of type employed in the table proper. Thus, at the Bureau of the Census, 8-point type is usually employed for titles of 6-point tables.

Sec. 3-B. Methods of Title Writing (311-314)

311. Three basic methods.—Various methods of title writing have been devised, distinguished largely by the mechanical order or placement of the title segments. The objective of each is the same; that is, to emphasize the content and purpose of the table and the difference between one table and another.

"Difference stress" is comparatively simple when only the universe or the major classification is involved. The difficulty increases with classification complexity; or when the difference is a function of area or time, largely because the "where" and "when" are usually placed at the end of the title.

Two methods of title writing are most commonly used in Bureau of Census publications: (a) The *conventional*, and (b) the *subject-phrase*. Although different in detail, both methods use a single unified title. A third method, restricted largely to specialized fields, particularly tables of the Census of Business, is (c) the *separated-unit* scheme, characterized by a physical separation of one or more segments from the main title.

The outstanding general example of the separated-unit method of table titling is the use of a subtitle to carry a portion of the title burden. The subtitle is not normally used by the Bureau of the Census, largely because of the demands it makes on vertical space. For discussion and examples of the use of subtitles in general statistical practice, see Walker, Helen M., and Walter N. Durost, *Statistical Tables, Their Structure and Use*, Teachers College, Columbia University, 1936, p. 22; and Mudgett, Bruce D., *Statistical Tables and Graphs*, Houghton Mifflin Company, 1930, p. 45-46.

These methods are described below in terms of construction of the title as a whole. More specific questions concerning which title segment should be emphasized are discussed in the following sections (secs. 3-C to 3-F) in this chapter.

312. Conventional method.—So-called because most commonly used throughout the statistical world. In its simplest form it merely expresses the "What, how classified, where, and when" in that order, as POPULATION BY AGE, RACE, AND SEX, FOR THE UNITED STATES: 1940. Frequently, the "how classified" is split, as AGE OF THE POPULATION BY RACE AND SEX . . .

a. Advantages and disadvantages.—This method has several signal advantages, of which the second and third (in order of listing) result from its frequency of use:

(1) *Flexibility.*—Ideal for small simple tables, the conventional method is capable of considerable manipulation and expansion to cover the more complex tables. By careful selection of the opening phrase, many of the advantages of the subject-phrase method may be attained without the attendant difficulty of expressing relationship between the subject-phrase and the remainder of the title.

(2) *Easiest method to learn and to handle.*—Since most tables are titled by the conventional method, the beginning title-writer is able to draw upon his own experience as a user. Minor errors in judgment concerning arrangement are unlikely to cause confusion since the average reader is familiar with the method.

(3) *Conforms to normal expectation of user.*—The user is accustomed to titles prepared in the conventional manner and takes their construction principle for granted. This aids him in noting differences and grasping content.

Coupled with these advantages are several distinct disadvantages which other systems attempt to overcome. These disadvantages may become acute in involved series of tables, particularly if the title work is performed hastily or without proper regard to intertable relationships.

(4) *Danger of undue title length.*—The conventional method readily lends itself to long and complicated titles which the reader tends to ignore rather than read.

(5) *May obscure important differences.*—While it easily handles table differences confined to a single title segment, the conventional method may obscure differences involving two or more segments. Differences in area segment are particularly hard to bring out since the area segment normally appears near the end. If the only difference between two or more tables lies in the difference in area covered, the reader may be faced with seemingly identical titles with the difference between them submerged.

313. Subject-phrase or key-phrase method.—So-called because it invariably starts the title with a key-phrase set off from the remainder by a dash or colon. This permits increased emphasis on purpose of presentation and difference between tables. Examples² follow:

¹ Occasionally, an attempt is made to emphasize important words of the title by using boldface, capital letters, or other contrasting type. This practice, rarely used by the Bureau of the Census, requires cautious handling lest oddity in appearance distract, rather than aid, the reader. For examples of limited use of bold face type for emphasizing table titles, see U. S. Works Progress Administration, *Workers on Relief in the United States in March 1935*, Washington, D. C., 1939. For intensive use of capital letters for emphasis of important words in table titles, see annual issues of *Statistical Abstract of the United States*, 1878 to 1904.

² The conventional method would tend to submerge the main subject of the tables and the intertable differences as follows:

TABLE 1.—ACREAGE, PRODUCTION, AND VALUE OF POTATOES, BY STATES: 1930 TO 1941

TABLE 2.—ACREAGE, PRODUCTION, AND VALUE OF CORN, BY STATES: 1930 TO 1941

TABLE 11.—NATIVE WHITE WOMEN BY EDUCATION OF WOMAN, MARITAL STATUS, AND AGE, FOR THE UNITED STATES: 1940

TABLE 12.—NATIVE WHITE WOMEN BY EDUCATION OF WOMAN, MARITAL STATUS, AND AGE, FOR THE UNITED STATES: 1930

Sec. 3-C. Universe Segment (321-325)

321. Definition.—The universe segment is that part of the table title specifying the nature and limits of the group or subgroup covered by the table. *Examples:* WHITE EMPLOYED WORKERS; GENERAL REVENUE; IMPORTS OF MERCHANDISE; DOMESTIC ANIMALS ON FARMS; MATERIALS CONSUMED; INDEPENDENT STORES; etc.

322. Placement.—Usually appears as the first or second segment. The universe segment precedes the segments on time and area.

a. Universe stress.—Placement of this segment at beginning of title is suitable in—

- (1) A series of tables in which each table involves a different basic universe.
- (2) A table standing alone where the purpose of the presentation is to provide general information on the universe without stressing any particular characteristic.

323. Curtailment of universe segment by use of headnote.—A long universe description may be shortened by relegating part of it to the headnote. The headnote, or that portion of it, then qualifies or defines the title. This technique demands careful handling to avoid misleading the user. Thus, in a given series of tables—

a. Universe qualifications *common to all tables* may be placed in the headnote and omitted from the title; but

b. Universe qualifications distinguishing one table from another should not be placed in the headnote; they should be kept in the title.

Example: A presentation is confined to 3 tables, presenting respectively data for total, white, and nonwhite workers 25 to 34 years old. Here, if desired, the age qualification could be moved from the title to the headnote in all tables, with the headnote reading “[Workers 25 to 34 years old],” since this universe qualification is identical for all tables. It would not be permissible to relegate the race qualification (total, white, nonwhite) to the headnote, since that qualification differs for each table.

324. Omission of universe segment or portion thereof.—Where the basic universe is identical for all tables in a series, *and* the nature of the universe is made clear in the report title or running head, the universe statement may be omitted completely from the title and headnote.

325. Stating unit of presentation.—If the universe segment (or some other portion of the title) does not specifically indicate the unit of presentation, it is imperative that it be made clear at some point in the table. (See pars. 512a and 1225a, and secs. 9-F and 14-C.)

Sec. 3-D. Classification Segment (331-336)

331. Definition.—The classification segment is that part (or parts) of the title specifying how the universe data are classified and cross-classified. *Examples:* BY AGE AND SEX; BY SOURCE; BY COMMODITY

GROUPS AND ARTICLES; BY KIND AND AGE GROUPS; BY KIND, QUANTITY, AND COST; BY SIZE OF STORE; etc.

332. Placement.—May precede or follow universe segment, or a portion may be put in front and the remainder behind the universe segment. The classification segment precedes the time and area segments.

a. Classification stress.—Placement of classification segment at beginning of title is most suitable in—

- (1) A series of tables with the same or similar universe where the distinction rests on differences in classification of data.
- (2) A table standing alone, such as any special purpose table, where the purpose of presentation is to stress a particular classification aspect of the data.

333. Splitting of classification segment.—When cross-classifications are shown (such as population by age, race, and sex), the classification considered most important is frequently placed before the universe segment and the remainder placed afterward. Two factors should be taken into account in thus splitting the segment:

a. Permits stressing of one classification feature.—Here, the most important classification (in terms of table purpose or table difference) is placed at the front of the title, as AGE OF THE POPULATION BY RACE AND SEX. . . .

b. Permits stressing major cross-classification.—Splitting the segment indicates automatically that the characteristics preceding the universe segment are classified by all characteristics following that segment. Nonstatistical users tend to be confused by the multiple use of “by” to indicate cross-classification. Thus, AGE OF THE POPULATION, BY RACE AND SEX is less confusing than POPULATION BY AGE, BY RACE AND SEX and means the same thing. (See par. 336.)

334. Showing variation in classification for two groups.—The extent to which varying detail of classification should be shown in the title depends largely upon whether the primary purpose of the table is such as to make detailed description essential. Where possible, the title should be kept short by indicating no more than the basic classifications. If this results in an overstatement, however, the situation should be spelled out in more detail in the title or a qualification should be placed in the headnote.

Example: In a given table, statistics for 1940 are shown for age by race and sex, and 1930 statistics for age are shown only by race. Here, three general solutions are possible:

a. AGE . . . , BY RACE AND SEX, 1940, AND AGE BY RACE, 1930, FOR THE . . .
Gives the 1940 picture in full with an additional statement for the 1930 picture. Normally, in Bureau of Census practice, when figures are shown for two censuses, the data for the current census are stressed in the title.

b. AGE . . . , BY RACE, 1940 AND 1930, AND BY SEX, 1940, FOR THE . . .
Describes the common situation in full and adds a statement on the sex factor for 1940. This title stresses the comparable material rather than the most recent information.

c. AGE OF THE POPULATION, BY RACE, FOR THE UNITED STATES: 1940 AND 1930. Includes in the title only the information common to all groups. This is undesirable in this instance since the data for the current census should ordinarily be stated in full; more liberties can be taken when describing data for a previous census which are included for the reader's convenience. This type of trimming of title would be more appropriate, therefore, if it were the 1930 data that were understated.

335. Titles of "composition tables."—Sometimes called "General Characteristics Tables," tables of this type are commonly used in census work to bring together summary or limited information for a given universe or area. Characteristically, this results in a table showing limited information for many different universes or sub-universes with only a general relationship.

When all groups (and their classifications) cannot be mentioned in the title, the title may be generalized as GENERAL CHARACTERISTICS, INDUSTRIAL CHARACTERISTICS, COMPOSITION OF, etc.

a. A given "composition" title may be used only once in a given series.—To avoid confusion, a GENERAL CHARACTERISTICS title may be used only once for any given universe or area in the same report. Two separate tables for the same area entitled, for example, GENERAL HOUSING CHARACTERISTICS, and containing altogether different groupings of housing data for the same time period for that area, would confuse the reader.

b. Partial solution when two "composition tables" shown.—Ordinarily, when two tables of this type are required for a given area, a common general feature can be found in the groups shown in each as distinct from that in the other. If so, that feature should be stressed in each title. If this proves impracticable, and the tables cannot be merged into a single table, a partial (but undesirable) solution may be found by specifying the first groups listed in each table, followed by "etc.," as in the following examples:

TABLE 4.—OCCUPANCY, TENURE, TYPE OF STRUCTURE, ETC., . . . BY COUNTIES

TABLE 5.—NUMBER OF ROOMS, LIGHTING EQUIPMENT, SIZE OF HOUSEHOLD, ETC., . . . BY COUNTIES

336. Limiting explanation of cross-classification.—Two different objectives, frequently conflicting, are involved in title description of cross-classification: *First*, strict statistical accuracy of statement; and *second*, provision of the essential clue to lead the user to the right table for his information. In simple cases, both of these objectives can be met without resulting in undue length or complexity of title. Where multiple cross-classification is involved, particularly where classification variation appears within the table, insistence on strict statistical accuracy may destroy the usefulness of the title as a guide. (See also par. 373 ff. in respect to percentage descriptions in titles.)

a. Statistical accuracy versus reader-patience.—Statistical accuracy in a title is of dubious value if the reader cannot grasp the meaning or loses patience with it.

Omission of cross-classification detail is desirable if it means that the title will become more useful.

The ability to trim the classification segment of the title may depend largely on whether "this table" is the one in the series to which the reader would naturally refer for a given classification, even though it is not mentioned in the title.

Example A: Universe tables.—If the presentation is confined to one table each for several distinct universes, minimum specification of detail is required in the titles. "Composition" titles reflect this situation. The reader interested in some aspect of any one universe will naturally turn to the table for that universe. If his particular information is not there, he will not expect to find it elsewhere in the presentation. This works both ways, however; that is, it is important to specify clearly in the title any feature appearing in the table which the reader would not normally expect to find there.

Example B: Variation in color detail.—If, for counties, *only one table* is presented on marital status by color, it is not essential to specify in the title that marital status for nonwhite is shown separately only for certain of the counties. Such a qualification may best be placed in the headnote and the title worded simply BY COLOR. The reader will expect to find in this table all the "color" information presented on the subject and will turn to it automatically, whether or not the detailed qualification is specified in the title.

b. Restrict use of "by" to major cross (frequency tables).—Where possible, use "by" to indicate the major cross-classification only. Let the reader look at the table to observe the detailed cross-classification. This is not desirable, of course, where the distinction between tables lies in the exact detail of cross-classification.

Example C: AGE, BY RACE, BY SEX.—This phrasing is unnecessarily complex if the table is the only one in the report presenting age data by race and sex, or if it reflects the "normal" pattern of the report. The real question is "Would the reader seek some other table for additional detail if the title were phrased: AGE, BY RACE AND SEX, or even AGE, RACE, AND SEX?" If not, the multiple use of "by" may be an ill-advised nicety not likely to be appreciated by the using public.

Example D-1: AGE, BY RACE AND BY SEX.—Here the table title shows that age is crossed separately by race and by sex, but not by both simultaneously. Such a distinction is desirable only if it constitutes a deviation from a standard pattern; that is, if it is an *unusual* feature. Its principal value lies in its being different from AGE, BY RACE AND SEX, so that the reader may reasonably assume that the *table* must be *different* also.

Example D-2: AGE, FOR EACH RACE AND SEX GROUP.—This is another approach to the same title problem. This expression may be considered more specific than that in example D-1, above, but it may leave the reader in doubt as to whether the age distribution is shown for the totals (all races combined and both sexes combined).

In any case, these distinctions tend to be over-subtle and should not be relied upon too heavily. If the distinction needs to be made to point out inter-table differences, then make it. Otherwise use the briefer form, even though it may be considered statistically incomplete.

c. Use of "by" when "universe total" is not included in crossing.—One of the most common title problems arises where only certain segments (but not the total) of group A are shown classified by B.

Problem: Table 4 shows an age distribution for the total population (not by sex) with accompanying percentage distributions. Table 5 then shows the data for male and female separately, but not for the total. Should the classification in table 5 (male and female table) be described as AGE OF . . . BY SEX; that is, should the same terminology be used as would be used if both tables were combined? Would not the correct title for table 5 be MALE AND FEMALE . . . , BY AGE; SPECIFIED SEX GROUPS OF . . . , BY AGE; OR AGE OF . . . OF EACH SEX?

Solution: This title distinction is useful where the title is otherwise short. It need not be made where the remainder of the title is long or complicated. It would be well, however, to include a headnote in table 5 saying "See table 4 for comparable age data for both sexes combined."

Sec. 3-E. Area or Space Segment (341-352)

341. Definition.—The area or space segment is that part of the title which specifies the political division or subdivision, geographic area, or physical plant to which the data refer. *Examples:* FOR THE STATE; FOR CITIES OF 500,000 OR MORE; FOR THE UNITED STATES; etc.

342. Placement.—Normally placed toward the end of the title immediately preceding the time-reference segment. It is placed elsewhere only when the various portions of data described in the title refer to different areas, etc.

343. Standard terminology.—Use standard terminology wherever possible. Reference to previous census reports in the given field will usually provide a standard phrase for any given situation. A few special features of phrasing and usage are discussed below. (For metropolitan districts, see par. 1114.)

344. The United States.—The method of referring to the United States is virtually standardized in Census Bureau publications.

a. FOR THE UNITED STATES.—Normally signifies continental United States only.

b. FOR CONTINENTAL UNITED STATES.—Restricted almost entirely to cases where it is necessary to emphasize that the given table is restricted to continental United States, whereas other tables in the given series include figures for the Territories and Possessions. In such cases, the distinction should be made clear on each table. If, however, all but one of the tables are for continental United States only, use FOR THE UNITED STATES in all but that one. In the odd table specify the "difference"; that is, use the term FOR THE UNITED STATES, TERRITORIES, AND POSSESSIONS.

Note that the definite article ("the") is never used when referring to continental United States.

c. FOR THE UNITED STATES, TERRITORIES, AND POSSESSIONS.—Used whenever information is shown (within the same table) for both continental United States and the outlying Territories and possessions, whether combined or separately.

345. The State.—Two principal uses should be noted:

a. **Specifying State name.**—Use the term FOR ILLINOIS, not FOR THE STATE OF ILLINOIS. *Exception:* For the State of Washington, use FOR THE STATE OF WASHINGTON or FOR WASHINGTON STATE wherever necessary to avoid confusion with Washington, D. C.

b. **Generalizing the reference.**—FOR THE STATE may be used where the name of the State is carried in a page running head, or where the given release or report is confined to data for that particular State with the State name clearly specified in the report or release title. Note, however, that the expression FOR THE STATE means that data are shown for the State as a whole unless additional qualification is provided in the title.

346. Regions and divisions.—Inclusion of the term GEOGRAPHIC is optional in titles. Thus, one may say either FOR GEOGRAPHIC DIVISIONS or FOR DIVISIONS. When information is shown by both divisions and States, it is better to say FOR DIVISIONS AND STATES omitting the "geographic" reference.

347. Individual cities.—When presenting data for individual cities (one table for each city), several special problems arise:

a. **When specifying city name.**—Use FOR THE CITY OF X, rather than FOR X, as FOR THE CITY OF CHICAGO, not FOR CHICAGO. *Exception:* Where the term "city" is already a part of the city name, it is enough to say FOR JERSEY CITY rather than FOR THE CITY OF JERSEY CITY.

Area designation (city, etc.) is particularly important where various types of areas of the same name are presented, as Washington city and Washington State, Chicago city and Chicago metropolitan district. When presenting city and county data, it is important to distinguish clearly the following: New York City and New York County, St. Louis city and St. Louis County, Baltimore city and Baltimore County, etc.

b. **Specifying State name as well as city name.**—Unnecessary for cities of 500,000 inhabitants or more since their names and general location tend to be generally familiar. Optional, but desirable, for cities of 100,000 to 500,000 inhabitants. The State name should invariably be included for cities of less than 100,000 inhabitants. Certain rules should be noted:

(1) **State name required in special cases.**—Always include the State name (abbreviated) when presenting data for any city with a name which is the same as that of a major city in another State. The most common of these are:

Charleston, S. C.	Kansas City, Kans.	Springfield, Ill.
Charleston, W. Va.	Kansas City, Mo.	Springfield, Mass.
		Springfield, Mo.
Columbus, Ga.	Portland, Maine	Springfield, Ohio
Columbus, Ohio	Portland, Oreg.	

(2) **Abbreviate State name.**—Always abbreviate the State name in titles of city tables. Use standard abbreviations. Note that Idaho, Iowa, Maine, Ohio, and Utah are always spelled out.

348. City size-groups.—When presenting data (in a single table) for a list of cities of a given size, a common Census Bureau practice is to omit mention of the basis of the size classification, such as INHAB-

INhabitants in the title segment FOR CITIES OF 25,000 OR MORE. The inclusion of this term is essential, however, when there is a possibility of misunderstanding.

Thus, if the title states that the universe is WOMEN OF CHILD-BEARING AGE, BIRTHS, DWELLING UNITS, etc., the reader may assume that the cities referred to are those with the given number of women of childbearing age, births, dwelling units, etc. The danger of confusion is increased when the data are confined to aggregate figures for all cities combined. In the latter case the data are not shown separately for each city; hence the reader, if he is uncertain, is unable to satisfy his doubts by noting the entries for a familiar city.

Where data are shown separately for each city, the omission of the size-classification base from the title is a matter of judgment. In general, the smaller the population of the area and the greater the number of cases of the given type, the more important is specification of the basis for the classification by size. Thus, when presenting statistics on marriage for cities of 1,000,000 inhabitants or more it might not be essential to specify "inhabitants." On the other hand, when presenting data on dwelling units for urban places of 2,500 inhabitants or more, it is wise to specify "inhabitants" since many cities have more than 2,500 dwelling units.

Examples: Appropriate terminology, including and excluding size-referent (basis of size classification), is as follows:

a. Without size-referent:

Right: FOR CITIES OF 25,000 OR MORE: 1940

Right: FOR CITIES OF 10,000 TO 25,000: 1940

b. With size-referent: Use INHABITANTS rather than POPULATION.³ Use INHABITANTS OR MORE instead of OR MORE INHABITANTS. Note that the phrase OR MORE is essential where only the lower limit of the city size-group is mentioned.

Right: FOR CITIES OF 25,000 INHABITANTS OR MORE: 1940

Right: FOR CITIES OF 10,000 TO 25,000 INHABITANTS: 1940

C. S.:⁴ FOR CITIES OF 25,000 OR MORE INHABITANTS: 1940

Wrong: FOR CITIES OF 25,000 INHABITANTS: 1940 ("OR MORE" is essential)

Wrong: FOR CITIES OF 25,000 POPULATION OR MORE: 1940

Wrong: FOR CITIES OF 25,000 OR MORE POPULATION: 1940

Wrong: FOR CITIES OF 25,000 POPULATION: 1940

³ The reason for use of the term "inhabitants" rather than "population" has been stated by Dr. Leon E. Truesdell, Chief Demographer, in an office memorandum, as follows: "The word 'population' is a collective noun in the singular and it may not properly be used immediately following a numeral adjective. Do not say, for example, 'in a city of 10,000 population.' Say either 'a city of 10,000 inhabitants,' or 'a city with a population of 10,000.' This word may occasionally be used in the plural, though ordinarily as a collective noun it carries the sense (though not the construction) of a plural. We say 'The population of all these cities has increased rapidly since 1930,' not 'The populations * * * have increased.' We may, however, say 'The populations of India and of Australia are so radically different that comparisons of this kind are not significant.'"

⁴ Contrary to style advocated in this manual, not wrong as such.

349. Urban and rural.—The expression used to designate urban and rural data differs according to whether or not data are shown (within the same table) for the State *as a whole*.

a. Data included for State as a whole.—Use FOR THE STATE, URBAN AND RURAL, if the data are shown separately for the State as a whole, for the urban area, and for the rural area. The common separation of rural data into "Rural-nonfarm" and "Rural-farm" does not affect title description unless the table is being shown for one of these parts only.

b. Data for urban and rural, but not for the State.—Use FOR URBAN AND RURAL AREAS OF THE STATE if both are shown, or FOR THE URBAN AREA OF THE STATE, FOR THE RURAL-NONFARM AREA OF THE STATE, etc., if only one such area is shown.

c. Appending part of area reference to universe segment.—For many types of data, the expressions "Urban," "Rural," "Rural-nonfarm," and "Rural-farm" may be prefixed to the universe statement if the data are shown for only one of these areas, as URBAN POPULATION, BY . . . FOR THE STATE, RURAL-NONFARM DWELLING UNITS, BY . . . FOR THE STATE, etc. The expression FOR THE STATE (or FOR ILLINOIS, etc.) is needed here to make clear the general area for which the urban or rural part is being shown.

350. Omission and curtailment of area reference.—Under certain conditions the area reference may be omitted entirely or may be curtailed, as follows:

a. Omission.—If all tables in a given report are for the same area as a whole, the area reference may be omitted from the individual table title, provided it is plainly stated in the report title.

Example: If all tables in a given report are for the United States as a whole, the expression FOR THE UNITED STATES may be omitted from the table titles. This does *not* apply, however, to a United States summary report which recapitulates data presented in a series of individual State reports. Regardless of whether the series of reports is to be bound eventually into a single volume, the area reference should appear in all table titles, subject to curtailment methods outlined below.

b. Curtailment.—When a report or chapter is restricted to data for a single major area, with some tables showing data for the area as a whole and others for that major area classified by subareas, the titles of the latter tables need not mention the major area as long as it is specified in the running head or in the report title.

Examples:

United States Summary.—Use FOR DIVISIONS AND STATES, not FOR THE UNITED STATES BY DIVISIONS AND STATES.

State report.—Use BY COUNTIES, not FOR THE STATE BY COUNTIES.

City report.—Use BY WARDS, not FOR THE CITY BY WARDS.

351. Using "for" and "by" in area reference.—Distinguish between the meaning of "for" and "by" in indicating presentation of subareas, particularly when the specification of the area being divided has been omitted.

a. "By" indicates inclusion of totality data.—Use BY if (within the same table) data are presented for the major area in the same or greater detail as for its subareas.

Example: If data are shown for the United States as a whole, followed (in the same table) by comparable data for each division and State, use BY DIVISIONS AND STATES, rather than FOR DIVISIONS AND STATES.

Similarly, in a table presenting data for the State as a whole, followed by comparable data for each county, use BY COUNTIES, not FOR COUNTIES.

b. "For" indicates presence of subarea data without totality figures.—Use FOR in the following situations:

(1) Where data are shown (in a given table) for each subarea (such as divisions, States, counties, etc.) but not for the major area (such as the United States, or the State). The titles should then read FOR DIVISIONS AND STATES; FOR COUNTIES; etc.

(2) Where only a grand total line (or column) is shown for the major area in combination with a detailed distribution for the subareas.

(3) Where cities are listed, since the city data will never add to a State total line or block. Use FOR even though a total is shown for all city data combined. (See below for area reference for a table with both city and county data.)

c. City and county data in same table.—In this case use FOR COUNTIES or BY COUNTIES depending upon the presence of State total data in the same detail as shown for the counties. Use FOR CITIES, invariably. Combine as follows, being careful to see to it that the city-size reference is plainly applicable to the cities only, not to the counties.

Right: BY COUNTIES, AND FOR CITIES OF 25,000 OR MORE: 1940

Right: FOR COUNTIES, AND FOR CITIES OF 25,000 OR MORE: 1940

352. Use of terms "Selected" or "Specified."—When showing a major area classified by subarea, use the term SELECTED or SPECIFIED when the listing of subareas for which data are shown separately does not include *all* of the subareas of the type described in the title. These terms should never be employed where the stub (or box) listing includes *all* subareas of the type described in the title.

a. "Selected."—By definition, this term makes clear that some specific criterion has been applied in determining which areas to include and to exclude. If SELECTED is used in the title, the basis of selection should be stated specifically in the title or in the headnote, or the headnote should refer the reader to the appropriate portion of the text for the explanation.

Examples: FOR SELECTED COUNTIES
WITH DATA FOR NONWHITE FOR SELECTED CITIES
FOR SELECTED CITIES OF 10,000 OR MORE

b. "Specified."—Used ordinarily when the criterion is too complex to explain; where enumeration or processing difficulties are the determining factor; or where the data would not be significant for the remaining areas, but the circumstances do not warrant detailed explanation. SPECIFIED does not demand explanation in the title, headnote, or text, although a generalized text statement may be made on the subject if desired.

Examples: FOR SPECIFIED COUNTIES
FOR SPECIFIED CITIES OF 10,000 OR MORE

Sec. 3-F. Time-Reference Segment (361-368)

361. **Definition.**—That part of the title which signifies the point in time to which the figures refer. May be a single date, a time period, or a series of dates or time periods. *Examples:* 1940; 1935 to 1940; 1940 AND 1930; 1910, 1920, AND 1940; WEEK OF MARCH 24 TO 30, 1940; etc.

362. **Placement.**—The time-reference segment is placed after that portion of the title to which it applies.

a. Same time-reference for all portions of title.—Place at end of title, preceded by a colon.

Right: AGE OF THE POPULATION, BY RACE AND SEX, FOR THE UNITED STATES:
1940 AND 1930

Wrong: AGE OF THE POPULATION, BY RACE AND SEX, 1940 AND 1930: FOR THE
UNITED STATES

b. Different time-reference for different portions of title.—Place each reference after portion to which it applies. Usually each is set off by commas, although it may be introduced by "in," "for," or "during." Even though one of the time-references may thereby appear at the end of the title (see last example, below), the colon must *not* be used unless the reference applies to the entire title.

Right: AGE BY RACE AND SEX, 1940, AND AGE BY RACE, 1930, FOR THE
UNITED STATES

Right: AGE BY RACE AND SEX FOR THE UNITED STATES, 1940 AND 1930,
AND BY RACE FOR DIVISIONS AND STATES, 1940

Right: AGE BY RACE AND SEX, FOR THE UNITED STATES, 1940 AND 1930;
AND BY RACE, FOR DIVISIONS AND STATES, 1940

Confusing: AGE BY RACE AND SEX FOR THE UNITED STATES, 1940 AND
1930, AND BY RACE FOR DIVISIONS AND STATES: 1940

363. **Punctuation.**—As illustrated above, an interspersed time-reference is usually set off by commas. A terminal time-reference is set off either by a colon or a comma.

a. **Colon.**—Precedes terminal time-reference only when the reference applies to the title as a whole; otherwise use a comma. This distinction is important. Incorrect usage leads to confusion. (See example under par. 362b, above.)

b. **Comma.**—Use commas to set off interspersed time-references; that is, to set off each time-reference which applies only to that portion of the title immediately preceding the given reference, regardless of whether such reference be within or at the end of the title.

c. **Semicolon.**—Use a semicolon after interspersed time-references whenever clarity will thereby be increased.

364. **Exact dates not essential in table titles.**—Although precise time specification is imperative in any report, particularly for statistics subject to seasonal or other time fluctuation, time description should be held to an absolute minimum in table titles. The burden of detailed statement of the time factor should be borne by the accompanying text, if any, or by the headnote or some other portion of the table.

In general, dates or time periods which depart from the normal expectation of the user should be spelled out in full in the title. Those which reflect a standard or expected situation should be curtailed sharply.⁵

In particular, in any series of tables with identical time-reference, only the most imperative part of the reference should be included in the table titles unless it is important to distinguish that series from some other series (in the same report) which has a different time-reference.

a. Regular census dates.—Such dates as those for the Censuses of Population, Agriculture,⁶ etc., may be shown merely as 1940, 1930, 1920, 1910, rather than APRIL 1, 1940, APRIL 1, 1930, JANUARY 1, 1920, APRIL 15, 1910. These dates are so well-known that there is rarely any point in specifying in full in table titles. In tables showing comparative data for several censuses, however, the exact dates should be shown in the boxhead or stub if the difference in month of enumeration needs to be taken into account by the user. In any case, the exact dates should be stated clearly in the text of the report.

b. Regular census periods.—For statistics which cover a regular survey period (rather than being as of a given date) such as information gathered in the Biennial Census of Manufactures or the Census of Business, the time-reference is normally stated merely as 1939, or 1937, rather than in the longer and more precise forms DURING THE YEAR 1939, or FOR THE YEAR 1937.⁷

c. Other dates.—Specify exact date or period in table title only in those cases where misinterpretation of the statistics would arise if it were not stated exactly; where it is impracticable to state it elsewhere in the table; or where it is insufficient to confine the exact time-reference to the accompanying text.

365. General problem of listing two or more dates in table titles.—Basically, the order of listing dates in the title should reflect the order in which statistics for those dates appear in the table (from the top reading down and from the left-hand side reading across). In the arrangement of the figures (see pars. 1122-1124) two methods are in common use in the statistical world, as follows:

a. Direct method.—This method places the earliest statistics first and the most recent statistics last. Thereby, the historical sequence is stressed and an identical arrangement of dates in the table title is made possible.

b. Indirect method.—This method reverses the order of presentation by placing the most recent figures first and the earliest figures last. Thereby, the most recent information is stressed. However, since such an expression as 1940 TO 1870 is unsatisfactory, the indirect listing of dates in the table title is generally restricted to cases where only two or, under certain conditions, three dates are to be cited. Where four or more dates are involved, the dates are listed forward in time in the title (resorting to the direct method) without disturbing the backward arrangement of figures in the table.

⁵ In the volumes of the Agriculture Census, the term CENSUS OF 19— is commonly employed in table titles where a single table presents both inventory data as of a given date and statistics for the preceding crop year. In such an instance, specific identification is provided within the table. This practice represents a solution of a problem similar to that cited in par. 364b.

The general rule for title description of statistics arranged backward in time may be stated as follows:

General rule: Where statistics are arranged backward in time, the same arrangement should be used in the table title as long as brevity is maintained.

c. Bureau of Census practice.—The Bureau of the Census uses the *indirect method*, that is, it normally places the most recent information first in the table and arranges the dates in the title accordingly.⁸ The primary reason for publication of Census statistics is to present the information from the most recent census or survey; statistics from other censuses are characteristically inserted for the convenience of the reader.

366. Order of listing two or more dates.—In general, dates should be listed in the table title in the same order that they appear in the boxhead or stub. If the *earliest* year appears at the top in the stub (or at the left in the boxhead), the dates should be listed forward in time in the title, as 1930 AND 1940.

If the *latest* year is placed at the top in the stub (or at the left in the boxhead), the title listing should be backward in time if not more than two dates are involved, as 1940 AND 1930; but forward in time if more than two⁷ dates, as 1920 TO 1940 (decennial statistics), or 1939 TO 1941 (annual statistics). The following discussion assumes normal census arrangement in the tables; that is, that the statistics are shown with the latest year first.

a. Two dates or time periods.—List them backward in time; that is, show the most recent date first, followed by the earlier date, and join them with AND.

Right: 1940 AND 1930

C. S.:⁸ 1930 AND 1940

Wrong: 1930 TO 1940 (implies presence of figures for intervening dates)

Right: 1940 AND 1920

C. S.:⁸ 1920 AND 1940

Wrong: 1920 TO 1940 (implies 1930 shown also)

Wrong: 1920-1940 (implies 1930 shown also)

b. Three dates in an incomplete series; or not in standard series.—Where three dates are shown which represent three independent dates (or periods) not comprising a standard time-series, or where they represent three out of four points in a standard time-series, list each date separately with the most recent placed first.

(1) *Incomplete standard series.*—If decennial census statistics on a given subject are available (for example) for only three out of the four censuses from 1910 to 1940, the listing should be as follows:

Right: 1940, 1920, AND 1910 (if 1930 not shown)

Right: 1940, 1930, AND 1910 (if 1920 not shown)

Wrong: 1910 to 1940 (implies all census years appear)

Wrong: 1910-1940 (implies all census years appear)

⁶ For comment on usage in the *Statistical Abstract of the United States*, see footnote 7, par. 1122b.

⁷ For exception, see par. 366b, below.

⁸ Contrary to Bureau of Census style, not wrong as such. Actually, in volumes with historical emphasis, this style (direct method) frequently is desirable.

(2) **Independent dates.**—Frequently when statistics are presented for a special census or survey, comparable information is available for two or more past dates or periods which may or may not include regular censuses. The three dates should be listed as follows, with inclusion of exact dates depending on analytical needs, opportunity to express them elsewhere in the table, and presence of accompanying text.

Right: SEPT. 1, 1944, APRIL 1, 1940, and FEB. 18, 1932

Right: 1944, 1940, AND 1932

C. S.:⁹ 1932, 1940, AND 1944

Wrong: 1932 to 1940 (time coverage open to doubt)

c. **Three or more dates in continuous series.**—Where three or more dates or time periods comprise all, or a complete segment, of a continuous time-series (no standard date or period missing within the group), list them forward in time; that is, list first the earliest period and place the most recent date or time period last, separating them by TO. This method does not emphasize the most recent or current date but is required by the need for brevity.

Right: 1910 to 1940 (if 1910, 1920, 1930, and 1940 are all shown)

C. S.:⁴ 1910-1940 (use TO, not hyphen)

Wordy: 1910, 1920, 1930, AND 1940

Wordy: 1940, 1930, 1920, AND 1910

d. **Combinations involving future time.**—In all combinations which include a reference to future time, list in chronological order beginning with the past and ending with the future. The question of a separate listing for each date or time period shown depends upon whether a continuous or broken series is involved.

Right: 1910 to 1980 (if figures are presented for each standard period, such as every 2-, 5-, or 10-year period)

Right: 1910 to 1940, 1960, AND 1980 (if figures not shown for 1950 and 1970)

Right: 1900, 1920 to 1940, 1960, AND 1980 (if figures not shown for 1910, 1950, and 1970)

Right: FOR SPECIFIED PERIODS, 1910 to 1980 (avoids detailed listing to indicate gaps; headnote explanation not required—see par. 352b)

Right: FOR SELECTED PERIODS, 1910 to 1980 (requires headnote explanation of basis of selection—see par. 352a)

367. Use of TO, hyphen (-), AND, and DURING.—These connectives should be used carefully. The following may prove helpful. In general, the examples relate to decennial census dates. However, the same principles apply to other dates or time periods.

a. **TO.**—Four points govern the use and meaning of TO in Census practice.

(1) **Signifies that all specified and intermediate standard dates are shown.**—The use of TO between dates or time periods signifies inclusion of figures for both dates mentioned and also for all standard intermediate dates, unless preceded by the term FOR SPECIFIED DATES or FOR SPECIFIED PERIODS.

Example: The expression 1910 to 1940 means that figures are shown separately for 1910, 1920, 1930, and 1940, and not merely for 1910 and 1940. (For exceptions, see par. 368e, below.)

(2) **May represent "change" involving time.**—Tables restricted to "increase," "decrease," or other types of "change" in terms of time require

⁴ Contrary to style advocated in this manual, not wrong as such.

⁹ Contrary to Bureau of Census style, not wrong as such. This is correct when using the direct method.

the use of TO (as 1930 TO 1940), or such expressions as BETWEEN 1930 AND 1940. If three points in time are involved, this may be stated either simply and briefly, as (example) 1920 TO 1940, or more explicitly as 1920 TO 1930, AND 1930 TO 1940.

(3) **Three or more consecutive dates or time periods must be involved.**—Use TO in only those cases where three or more dates are presented in a continuous series. If only two dates are involved, use AND, except as provided in the paragraph immediately below.

(4) **Requires listing dates forward in time.**—Where TO is used, the listing must necessarily be forward in time; that is, the earliest date is listed first, as 1920 TO 1940, never 1940 TO 1920.

b. **Hyphen (-).**—It is suggested that the hyphen not be used except where extreme demand for space necessitates. However, where used by the Census Bureau, the hyphen¹⁰ (as in 1870-1900) is subject to the same rules as TO; it should not be substituted for AND or DURING.

c. **AND.**—The use of AND conforms to the ordinary rules of rhetoric.

(1) **To join any combination of two dates.**—If the listing is comprised solely of that combination, the current or most recent date is normally placed first in Census Bureau practice.

Right: 1940 AND 1980 (if statistics are shown only for 1940 and 1980)

C. S.:¹¹ 1980 AND 1940 (wrong order)

Wrong: 1940 TO 1980 (implies figures are shown for 1950, 1960, and 1970, also; that is, for more than the two dates)

Right: 1940 AND 1930

C. S.:¹¹ 1930 AND 1940 (wrong order)

Wrong: 1930 TO 1940 (use AND for two dates)

(2) **To join the last two members of a series.**—This represents the normal practice of using AND in a series. Note that both AND and TO may be used in a series of dates where the use of TO covers three dates or periods.

Right: 1880, 1900 TO 1920, AND 1940 (if 1890 and 1930 are not shown)

Right: 1940, 1930, AND 1910 (if 1920 is not shown)

d. **DURING.**—"During" implies an action that was taking place continuously during the specified period; or which might have occurred at any time, or at varying combinations of times, during that period. Avoid this term where possible. Its primary use is as a part of the universe-classification segment where it limits the group to which reference is made. It is rarely used as a part of the time-reference segment as such; but when used, it always reads in;¹² that is, no comma or colon separates it from the rest of the time specification.

Right: AGE OF EMPLOYED WORKERS WHO WORKED LESS THAN 12 MONTHS IN 1939, BY RACE AND SEX, FOR THE UNITED STATES: 1940

Right: AGE AND SEX OF WORKERS EMPLOYED DURING WEEK OF MARCH 24 TO 30, 1940

Wrong: AGE AND SEX OF EMPLOYED WORKERS: DURING WEEK OF MARCH 24 TO 30, 1940

¹⁰ Technically, in typeset composition, the "1-en dash" (-) is substituted for the hyphen (-) in tabular work. However, since the distinction involves a printing technicality, and the difference between these characters is scarcely distinguishable to the nonprinter's eye, the term hyphen is used throughout this manual.

¹¹ Contrary to Bureau of Census style. "1940 and 1980" and "1930 and 1940" would be correct with the direct method.

¹² For definition of "read in," see par. 927.

368. Omission and curtailment of time-reference.—In certain cases the time-reference may be omitted completely from the table title, or curtailed sharply therein, even though this may mean a minor sacrifice in the cataloging function of the title.

a. Complete omission from title.—The time reference may be omitted if the statistics shown in all tables in the given report are for the same date or time period, and the date or time period is specified in the running head of the page. This type of omission is risky if statistics for any other period appear in any table. If the time-reference is brief, it is better to include it in all tables.

b. Omission of all reference to incidental statistics.—Omit all reference to incidental statistics within a given table which have a time-reference other than that for the main body of the table, particularly when the classification is not as detailed. Thus, if all but a few lines of a full-page table are for 1940 and the few lines (for 1930) have been added merely as a convenience to the user, no reference to the 1930 statistics need be made in the table title *unless* the items are of paramount interest or are not a logical part of the table in terms of subject matter.

c. Disregarding missing members in a time-series.—Use of such expressions as 1850 to 1940 is undesirable unless statistics are shown for *all* intervening censuses, but occasionally may be justified under the following conditions:

(1) **One missing member in a long-term standard series.**—If only one member is missing in a standard long-term time-series, and if the remainder of the title is necessarily long, the time-reference may be shortened by ignoring the gap, *provided* that the headnote specifies the missing member. The example assumes statistics for decennial census periods.

Right: 1850 to 1880, AND 1900 to 1940

Permissible: 1850 to 1940 (with headnote reading "Statistics not shown for 1890")

Inappropriate: FOR SPECIFIED CENSUSES, 1850 TO 1940 (use of SPECIFIED is inappropriate when only one member is missing)

(2) **Two or more members missing in a long-term standard series.**—

If two or more nonconsecutive members are missing, one of two procedures is possible, listed below in order of preference. The example assumes that statistics are shown for all decennial censuses from 1850 to 1940 *except* 1890 and 1910.

Right: 1850 to 1880, 1900, AND 1920 to 1940

Permissible: FOR SPECIFIED CENSUSES, 1850 TO 1940

Avoid: 1850 to 1940 (even with headnote explanation)

If all of the missing members are consecutive, specify the censuses shown. The following example assumes that all members from 1850 to 1940 appear *except* 1890 and 1900.

Right: 1850 to 1880, AND 1910 to 1940

Inappropriate: FOR SPECIFIED CENSUSES, 1850 TO 1940

Avoid: 1850 to 1940 (even with headnote explanation)

d. Omitting mention of minor variations in dates in a time-series.—In a time-series where all but a few points are for the same day in the month (or same month in a year) and the remainder vary as to day and month, do not mention the variation in the title. If necessary, make it clear in a headnote or elsewhere in the table.

e. Including only major aspect of time-reference.—In general, give only the most imperative¹² part of a time-reference in the title. If the date is an exact day, it usually is sufficient to mention only the month in the title, or it may be reduced to the year if it is a standard census date. Similarly, use only the year if the time-reference is to a month, unless the month specification in the table title is absolutely essential.¹³ Frequently it is sufficient to mention the month in the accompanying text and refer only to the year in the table title. (See par. 364.)

Sec. 3-G. Title Description of Percent Data (371-374)

371. General.—Correct identification of the base is the paramount consideration in describing percentages. A second requirement is correct description of the class-groups into which each universe, or subuniverse, is distributed. Since these objectives must be achieved by fine distinctions in phrasing and word-order, flexibility in title treatment is reduced drastically in comparison with titles for frequency tables.

Percentage description usually must be independent of description of frequencies presented in the same table; that is, although certain words or phrases may be identical for both descriptions, they usually must be repeated separately for each. The need for independent description for each type of data naturally adds to title length and complexity.

372. Percentages and frequencies appearing in same table.—Many tables contain both percentage and frequency data. In general, title treatment depends on the primary purpose of the table as a whole and the conditions or circumstances of inclusion of the two types of data.

a. Frequency table including percentages.—Here the primary purpose of the table is to show frequencies. The percentages are of secondary importance and are inserted for reader-convenience or to clarify, or add significance to, the frequency information.

Rule: Confine title to description of frequencies. Omit title-reference for the percentage data unless they—

(1) Are of outstanding significance in themselves, or

(2) Are not a natural byproduct of the frequencies shown; that is, they comprise percentages which would more logically be placed elsewhere and which have been included in the given table only because of available space.

b. Percentage table including frequencies.—Here the primary reason for table existence lies in the percentage presentation. The frequencies are of secondary significance. Thus, it may be desirable to include in a percentage table the frequency rims used as the bases of the percentages.

Rule: Confine title to description of percentages. Omit title-reference for the frequency data unless they—

¹² The interpretation of "imperative" and "essential" depends upon the nature of the statistics. Thus, for highly seasonal phenomena, a failure to specify the month or season might be a serious error.

(1) Are of outstanding significance in themselves, or
 (2) Are not the bases of the percentages but comprise "supplementary" frequency information which appear in the given table because of difficulty of inclusion in some other table where they logically belong, or because their nature is such that they cannot be presented in a separate table.

c. **Doubtful cases.**—Where the amount of frequency and percentage data is about equal, or where the primary purpose of the table (in terms of presenting frequency or percentage data) is in doubt, the general rule is to assume that it is a "frequency table including percentages" and title it according to the rule in paragraph 372a, above.

373. Problem of distinctive phrasing of percentage titles.—When a number of percentage tables which have been titled at various points in time are compared with each other, it may be found that the descriptive terminology has not been used consistently, even where all the tables were titled by the same person. Thus, identical phrasing (in respect to essentials) may have been used to describe basically different distribution patterns, or different phrasing may have been used to describe identical patterns, or both. Obviously, then, some of the tables have not been titled properly, since the reader cannot ascribe the same meaning at all times to the same phrasing.

a. **Use of a predetermined method.**—Theoretically, the solution to the above problem would be to title all tables in accordance with some predetermined scheme broad enough in scope to provide distinctive phrasings for at least the most common situations.

In this connection, it must be remembered that the title-writer and the user approach the title from opposite directions. The title-writer works from table to title; that is, knowing the content of the table, he tries to describe it. The user, however, works from title to table; that is, he tries to deduce the content from the descriptive title. It follows that the title-writer should avoid terms which he and the user will not interpret in the same way.

The first prerequisite to a common understanding is the consistent use of descriptive phrases. Use of a standard scheme would promote consistency not only among titles written by the same person, but also among titles written by different persons. However, any scheme which attempts to differentiate between all major possibilities tends to become cumbersome where applied. Also, the distinctions in phrasing may become too fine-drawn to be useful to most readers. (See par. 336.)

An experimental method is illustrated in fig. 11, pp. 57-58. This scheme states the problem; it does not solve it. The phrasings provided there are better suited for the description of simple than of complicated tables.

374. Appending percentage description to frequency titles.—Where it becomes necessary to call specific attention to the presence of percentages in a frequency table, the reference usually is inserted preceding the area segment (assuming area specification is the same as for the frequencies) and is introduced by WITH.

Right: AGE OF THE POPULATION BY COLOR AND SEX, WITH PERCENT DISTRIBUTION BY AGE, FOR THE STATE: 1940

Figure 11.—EXPERIMENT IN FORMAL TERMINOLOGY FOR PERCENT TABLES

This figure illustrates the problems involved in the development of any standard scheme for phrasing of titles of percentage tables. In each case, the first title stresses the class being distributed (the base); the second title stresses the characteristic by which classified. These examples comprise an experiment in a search for—
 (1) A systematic presentation which focuses attention on basic problems of percentage description;
 (2) A testing ground for any system of terminology it may seem desirable to develop; and
 (3) A guide for optional use where circumstances seem to warrant.

The skeletal titles shown represent the basic terminology for the percentages described. The three dots at the beginning of each title (except tables 5 and 9) represent the words PERCENTAGE DISTRIBUTION; those at the end represent the area and time specification. Throughout, X represents the universe total (as total employed workers); A represents sex; B, color; and C, age.
Example: Assuming data are for employed workers in the United States, 1940, the title for table 1 would read *Percentage Distribution of Employed Workers by Color, for the United States: 1940* (or) *Percentage Distribution by Color for Employed Workers in the United States: 1940*.

<p>(1) Universe total (X) distributed according to characteristic B: TABLE 1.—... OF (THE UNIVERSE) BY COLOR... (OR) ... BY COLOR OF (THE UNIVERSE) ...</p> <table border="1"> <tr> <th colspan="2">Color</th> <th>Percent</th> </tr> <tr> <td colspan="2">All classes</td> <td>100.0</td> </tr> <tr> <td>White</td> <td>Nonwhite</td> <td>88.8 10.2</td> </tr> </table> <p>(See examples 4 and 5 below.)</p>		Color		Percent	All classes		100.0	White	Nonwhite	88.8 10.2	<p>(2) X classified by characteristic A, and each resultant group distributed according to characteristic B: TABLE 2.—... OF SEX GROUPS OF (THE UNIVERSE) BY COLOR... (OR) ... BY COLOR FOR SEX GROUPS OF (THE UNIVERSE) ...</p> <table border="1"> <tr> <th colspan="2">Color and sex</th> <th>Percent</th> </tr> <tr> <td colspan="2">Total</td> <td>100.0</td> </tr> <tr> <td>White</td> <td>Nonwhite</td> <td>88.8 10.2</td> </tr> <tr> <td>Male</td> <td>Female</td> <td>100.0 90.0 10.0</td> </tr> <tr> <td>White</td> <td>Nonwhite</td> <td>100.0 88.6 10.4</td> </tr> </table>		Color and sex		Percent	Total		100.0	White	Nonwhite	88.8 10.2	Male	Female	100.0 90.0 10.0	White	Nonwhite	100.0 88.6 10.4	<p>(3) X cross-classified by A and C, and each resultant group distributed according to B: TABLE 3.—... OF AGE-SEX GROUPS OF (THE UNIVERSE) BY COLOR... (OR) ... BY COLOR FOR AGE-SEX GROUPS OF (THE UNIVERSE) ...</p> <p>[Compare with table 7]</p> <table border="1"> <tr> <th colspan="2">Color and sex</th> <th>All ages</th> <th>Under 45 years</th> <th>45 years over</th> </tr> <tr> <td colspan="2">Total</td> <td>100.0</td> <td>100.0</td> <td>100.0</td> </tr> <tr> <td>White</td> <td>Nonwhite</td> <td>80.8 10.2</td> <td>88.8 11.2</td> <td>92.4 7.6</td> </tr> <tr> <td>Male</td> <td>Female</td> <td>100.0 90.0 10.0</td> <td>100.0 89.8 10.8</td> <td>100.0 92.7 7.8</td> </tr> <tr> <td>White</td> <td>Nonwhite</td> <td>100.0 88.6 10.4</td> <td>100.0 88.5 11.5</td> <td>100.0 92.0 7.4</td> </tr> </table>		Color and sex		All ages	Under 45 years	45 years over	Total		100.0	100.0	100.0	White	Nonwhite	80.8 10.2	88.8 11.2	92.4 7.6	Male	Female	100.0 90.0 10.0	100.0 89.8 10.8	100.0 92.7 7.8	White	Nonwhite	100.0 88.6 10.4	100.0 88.5 11.5	100.0 92.0 7.4
Color		Percent																																																				
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Color and sex		Percent																																																				
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White	Nonwhite	100.0 88.6 10.4																																																				
Color and sex		All ages	Under 45 years	45 years over																																																		
Total		100.0	100.0	100.0																																																		
White	Nonwhite	80.8 10.2	88.8 11.2	92.4 7.6																																																		
Male	Female	100.0 90.0 10.0	100.0 89.8 10.8	100.0 92.7 7.8																																																		
White	Nonwhite	100.0 88.6 10.4	100.0 88.5 11.5	100.0 92.0 7.4																																																		

(4) X distributed according to groups formed by cross-classification by A and B (single-column arrangement):

TABLE 4.—... OF (THE UNIVERSE) BY COLOR AND SEX... (OF) ... BY COLOR AND SEX FOR (THE UNIVERSE) [Compare description with that for table 6]

Color and sex		Percent
Total		100.0
White*		89.8
Nonwhite*		10.2
Male*		50.2
White		45.1
Nonwhite		5.0
Female*		49.8
White		44.6
Nonwhite		5.2

* Omission of lines for these categories would not affect title, since these are subtotals of prime cells.

(5) Variant of table 4 with another title approach:

TABLE 5.—PERCENT OF (UNIVERSE) IN EACH COLOR-SEX GROUP . . .

Color	Total		Male	Female
	Total	Percent		
Total	100.0	49.8		
White	89.8	45.1		44.6
Nonwhite	10.2	5.0		5.2

(6) X distributed according to A and B, taken separately:

TABLE 6.—... OF (THE UNIVERSE) BY COLOR AND BY SEX... (OF) ... BY COLOR AND BY SEX FOR (THE UNIVERSE) [Compare description with that for table 4]

Color and sex		Percent
Total		100.0
White		89.8
Nonwhite		10.2
Male		50.2
Female		49.8

(8) 2-way distribution in same table:

TABLE 8.—... OF SEX BY AGE, AND OF AGE BY SEX, FOR... (OF) ... BY AGE FOR SEX, AND BY SEX FOR AGE, FOR . . .

Age	Sex by age			
	Age by sex		Age by sex	
	Total	Fe- Male	Fe- Total	Male male
Total	100.0	100.0	100.0	50.2
Under 45 years	73.3	73.1	73.6	50.0
45 and over	26.7	26.9	26.4	50.6

(7) X classified separately by A and C and each group distributed by B:

TABLE 7.—... OF SEX AND AGE GROUPS OF (UNIVERSE) BY COLOR... (OF) ... BY COLOR FOR SEX AND AGE GROUPS OF (UNIVERSE) . . .

Color	Total	Sex		Age (years)	
		Male	Fe- male	Under 45	45 and over
Total	100.0	100.0	100.0	100.0	100.0
White	89.9	90.0	89.6	88.8	92.4
Nonwhite	10.2	10.0	10.4	11.2	7.6

(9) Cell-to-cell relationships between data in two frequency tables, expressed as percentages (not a complete distribution):

TABLE 9.—PERCENT WHITE IN EACH AGE-SEX GROUP OF (THE . . .)

Sex	All ages		Under 45 years and over	
	Total	Percent	Total	Percent
Total	89.8	65.1	89.8	24.6
Male	45.1	33.7	45.1	12.2
Female	44.6	32.5	44.6	12.2

Chapter 4

THE TABLE NUMBER (401-435)

Sec. 4-A. General (401-407)

401. Definition and purpose.—The table number is an indicator of relative position of the table within a series. As an identifying device, it provides a convenient means of table indexing and reference. The use of prefix and suffix symbols makes it possible to indicate relationship between and within tables and series of tables.

In Bureau of the Census practice, the table number immediately precedes and is placed on the same line as the opening of the title. It is separated from the title proper by a period and a dash. The number appears in boldface type where boldface is available.

402. Symbols used.—For practical purposes the types of symbols used for numbering are restricted to four, discussed here in order of frequency of use:

- a. Arabic numerals.—Most desirable because most familiar to the user.
- b. Capital letters.—Most common use is for text tables when Arabic numerals have been used in the tabular section of the report. Capital letters should be avoided for any series with more than 26 tables; the doubling-up (such as TABLE AA or Aa for the twenty-seventh (or the second) table tends to be confusing. For use of capital letters as prefixes, see paragraph 403 and section 4-C.
- c. Roman numerals.—Although frequently used for text tables, Roman numerals have two serious disadvantages:

(1) *Hard to read.*—Few users can read Roman numerals easily. In general, Roman numerals should be avoided in numbering schemes. In any case, they should not be used in any series of tables numbering more than 39, since the meaning of the L in XL is rarely understood.

(2) *Verbal confusion.*—Roman and Arabic numerals of the same value are readily distinguished in writing but are identical in speech. The use of Roman and Arabic numerals to distinguish two series of tables may prove troublesome. No user can refer to them verbally (on the telephone, or when giving instructions, or dictating) without either specifying Arabic or Roman, or risking confusion.

d. *Small letters (lower case).*—Undesirable when standing alone, particularly where, as in Bureau of Census reports, table titles are printed or typed in caps, or in caps and small caps.¹ In particular, the use of small letters should be confined to a series of not more than 26 tables. Small letters are most useful as suffixes to table numbers. (See sec. 4-D.)

THIS IS IN CAPS. THIS IS IN CAPS AND SMALL CAPS.

403. Symbol combinations.—In order to distinguish subseries of tables, or to indicate direct table relationships, certain symbols may be used in combination. In general, those combinations are best which tend to be most familiar to the user. In the following list a means any small letter, 2 means any Arabic numeral, etc.

Preferred	Acceptable	Not acceptable
2a	2-A	2-2 or 2-II
A-2	A-II	A-A or A-a
II-A	IIa	II-II or II-2
----	----	a-2, a-A, or a-a

404. Omit number for single tables.—When the entire tabular presentation consists of a single table, the table number may be omitted since it rarely performs a useful purpose. Note, however, that this does not apply to an unrelated table among a group of related tables. It refers to such cases as a release containing only one table, or a single table typed for inclusion in correspondence.

405. No duplication.—Within a given report, no two tables should bear the same number unless a standard table scheme is involved. (See sec. 4-B.) However, table numbers differentiated by prefixes or suffixes do not constitute duplications unless the entire combination is identical.

406. Normal numbering scheme.—Unless there are specific reasons to the contrary, tables should be numbered in a single series of continuous Arabic numerals beginning with 1.

407. Tables in text and in tabular section.—In a report which presents analytical or summary tables within the text with the bulk of the statistical presentation segregated in a tabular section of detailed tables, two numbering schemes are available. (See also par. 423.)

a. Numbering in same series.—Assign number 1 to the first text table and continue the series without a break through the tabular section.

(1) Most suitable when text tables and detailed tables, taken together, constitute a logical development.

(2) Least suitable when text tables constitute a summary or analytical series covering the entire group of detailed tables.

(3) May cause operating difficulties. In general, the text material tends to be subject to change after the detailed tables in the tabular section have been frozen. A change in the total number of text tables (by adding, omitting, combining, or dividing a table) will throw off the numbering of all the detailed tables.

b. Numbering in separate series.—Number text tables in one series; start a new series for the tabular section.

(1) Most suitable where the two series are not continuous in development, as when the text tables comprise figures selected from the tabular section either for summary purposes or to illustrate analytical points discussed in the text,

(2) Least suitable when text tables and detailed tables, taken together, develop the materials *seriatim*.

(3) Most convenient system for operating purposes since revisions in text do not affect the tabular section.

(4) Requires two different types of symbols to avoid duplication of table numbers. The preferred symbol (Arabic numerals) should be used for the detailed tables. Either capital letters or Roman numerals may be used for the text series, with capital letters preferred. However, see also section 4-C, paragraph 423.

Sec. 4-B. Numbering Standard-Series Tables (411-414)

411. Standard series defined.—A method of tabular organization in which a series of table forms is established for a given area or analytical group, and the same series is repeated for each comparable area or group.

Example: Any Bureau of the Census volume with State chapters (or sections) in which tables identical in form are presented for each State.

412. Purpose and use of standard series.—Facilitates analysis, reference, and production.

a. Insures parallelism of presentation.—Within obvious limits, a characteristic or classification presented for any one group or area is automatically presented for all comparable groups or areas. In this way, the more important features are assured a uniform coverage. Moreover, this method does not prevent insertion of additional tables for features peculiar to a given area. (See sec. 4-D, pars. 433-435.)

b. Facilitates reference.—The standardization as to content tells the reader referring to a given area the minimum he may expect to find for any similar area or group for which the same problem exists. The identity of table number also provides him with the table number for all similar tables for all similar areas or groups.

c. Simplifies production.—Instructions common to all similar areas or groups can be prepared at one time. Problems common to all can be handled by general rulings. The attention can then be focused on individual problems peculiar to specific areas or groups. Worksheets can be reproduced in quantity with common captions already entered instead of being written by hand on each sheet.

413. Numbering scheme.—The standard numbering scheme is an important feature of the standard series. Its existence emphasizes the standardization and makes it apparent to the user. The numbering method should conform to the following requirement, stated here from two different points of view:

a. Tables with identical numbers should have comparable content and coverage.

b. Tables with comparable content and coverage should have identical numbers.

414. General consequences of standard table numbering.—Certain general consequences follow from the use of a standard series numbering scheme, and certain obligations are automatically incurred:

a. Automatically arranges report in parts or sections, irrespective of formal designation. The formal organization of the report should be adapted to this arrangement.

b. Requires clear designation, either in the running head or in the table title, of the particular universe for which each table is presented. That is, since there may be a number of tables numbered 1, the distinctive feature of each must be made clear at a glance.

c. Prevents continuous numbering in those sections where a table is omitted from the series because it is not applicable for the given area or group covered by the section. That is, if table 4 is omitted for Idaho, table 5 of the standard series should not be renumbered as table 4 since then table 4 (and following tables) for Idaho would not be comparable with table 4 (and following tables) for other States.

d. Requires specific explanation of table omission at the point where the omitted table would have appeared. That is, the explanation should appear at the point where the user would expect to find the table, not merely in the table of contents.

Examples of statements inserted in the tabular section following tables 3 and 34, respectively.

(Table 4 of the standard series for the State omitted because there are no cities of 50,000 or more in Idaho reported by wards)

(Tables 35 to 52 of the standard series omitted because there are no cities of the given size-group in this State)

e. Converts the listing of tables on the contents page of the combined volume to a tabular arrangement. Where all table titles and numbers have been standardized, there is no point in repeating the same series of titles for all similar areas, with the page number opposite each listing. Instead, the contents page should specify the important features of the standard scheme and provide the list of standard titles. A tabular index should then be presented showing, for example, the State names in the stub, the standard table numbers in the boxhead, and the applicable page numbers in the cells.

f. Requires establishing of standard titles within close limits. Only minor variations are permissible. Outstanding differences tend to run counter to the purpose and function of standardization.

g. May demand specialized treatment for page running heads. If, as usually is true, the standard titles used omit the specific name of the area or group common to the entire section, that name must appear in the running head of the page. Thus, if the titles end with the words . . . FOR THE STATE: 1940, the running head of the page should provide the State name.

Sec. 4-C. Use of Prefix Letters (421-424)

421. Definition.—A capital letter (rarely a small letter) placed in front, and considered a part, of the table number. *Example:* The A and J in TABLE A-1 and TABLE J-12, respectively.

422. General use.—The use of prefix letters usually is restricted to two situations:

a. To distinguish a series of tables appearing in the text, or in appendixes, from the main series appearing in the tabular section of a report; or

b. To identify a standard table scheme of a compound nature. (See par. 424.)

423. Text and appendix tables.—Here, the use of prefixes may arise from a desire to use an Arabic-numeral scheme but to avoid any implication that the text or appendix tables are part of the same basic series as the detailed tables. (See par. 407.)

a. **Text tables.**—Numbers may be run in a single continuous series using Arabic numerals, all prefixed by the capital letter A, as TABLE A-1, A-2, etc.

Again, if the text is divided into chapters or readily recognizable sections of any length, prefix A may be used for the first chapter or section, prefix B for the second, etc., starting with 1 again for each such section, as TABLE A-1, TABLE A-2 . . . , TABLE B-1, TABLE B-2 . . . , etc. However, this system has the obvious disadvantage of complexity and, in the case of numbered chapters, the prefix will not tie in with the chapter number.

b. **Appendix tables.**—In a single appendix, prefix A may be added to all table numbers, running them as TABLE A-1, TABLE A-2, etc. This makes clear that the appendix tables are not continuous in development with the detailed tables. This method is impracticable, however, if prefix A already has been assigned to text tables. In that case, the use of prefix B for appendix tables might imply a relationship to text tables which is unlikely to exist.

The prefix scheme is most useful where two or more appendixes exist which might appropriately be designated as appendix A, appendix B, etc. Tables in appendix A may then be numbered TABLE A-1, TABLE A-2, . . . ; and those in appendix B numbered TABLE B-1, TABLE B-2 . . . , etc.

424. Standard-series tables.—Where possible, prefix letters should be avoided in standard-series arrangements. As in any reference-code scheme, that which seems simple and obvious to the designer may prove confusing to the user who is interested in occasional quick reference rather than in intensive study or analysis. Where used, the prefix scheme should be as easy to grasp as possible. Also, it should be explained clearly in the table of contents or introduction.

a. **Basic principles.**—In any prefix scheme for table numbers, reader-grasp will be helped by maintaining the following principles:

(1) **The numerical component** (as 2 in TABLE A-2) represents an identity of table form and classification of data. That is, all tables with the same numerical component in their table number (all tables numbered 2) should provide strictly comparable data, with the only variable that of universe or area as symbolized by the alphabetical prefix.

(2) **The alphabetical component** (as prefix A in TABLE A-2) represents an identity of universe or area. That is, within a given section of the report all tables in series A, as indicated by the prefix, should be for the same universe or area. Here the variable is one of content and classification as symbolized by the numerical component.

(3) **Summary example.**—It follows that tables A-1 to A-10 should always be for the same major group or area, but they may be expected to differ in the subgroup shown or in the way the data are classified. Contrariwise, tables A-4, B-4, C-4, D-4, etc., should always present the same subgroups classified in the same way, but they may be expected to differ in the universe or area for which the data are distributed.

b. **Circumstances of use.**—Prefix schemes are not advisable in standard-series tables except as a last resort and then only in a compound series. In general,

prefix schemes in standard-series tables should be confined to cases where all data for a given universe or area must appear together, and the universe or area designation cannot be shown effectively in the running head.

(1) *Not needed in simple series.*—Prefixes should not be used in a simple standard series such as a standard series repeated for each State. Here the report tends to organize in State sections, and the resultant presence of the State name in the variable running head makes a prefix scheme unnecessary.

(2) *Combining tables to avoid prefixes.*—When comparable data are to be presented for a number of areas in the form (for example) of standardized tables 1 to 10, separate tables for each area need not be established if the TABLE 1 for the first area is followed immediately by TABLE 1 for each other area; and the resultant group of tables numbered 1 is followed by TABLE 2 for each area, etc. Here the normal expedient of combining all tables numbered 1 into a single multipage table solves the problem. Assigning prefixes to the table number is then unnecessary since there is only one TABLE 1, one TABLE 2, etc.

(3) *Use of prefixes in a compound series of standard tables.*—On occasion, a report will consist of a section for each State with a standard series of tables presented not only for the State as a whole, but also for subareas within the State. In cases where the nature of the data makes it essential that all data for a given subarea be kept together, standardized tables 1 to 10 may be presented for the first subarea; followed by tables 1 to 10 for the second subarea; etc.

Here the running head of the State section distinguishes tables for one State from those for another. But the running head cannot also be expected to differentiate, within each State section, between the table 1 for each subarea (such as table 1 for the State as a whole) and table 1 for each other subarea (such as that for the first major city in the State, for the second major city, etc.).

This problem may be solved by assigning prefix A to the tables for the first subarea; prefix B to the tables for the second subarea; etc. Then standardized tables A-1 to A-10 are followed by standardized tables B-1 to B-10, etc.

Sec. 4-D. Use of Suffix Letters (431-435)

431. Definition.—A small letter placed after, and constituting a part of, the table number. *Example:* The **a** and **c** in TABLE 2a and TABLE 8c, respectively.

432. Basic principles of table relationship and position.—The use of suffix letters is properly limited by the following principles of table relationship and position.

a. Table relationship.—Tables with suffixed table numbers should bear an easily noted, preferably obvious, relationship to their "master" table (that is, to the table of the same number without a suffix), even though the master table does not appear.

b. Table position.—Tables with suffixed table numbers constitute a subseries and should not be separated from each other. The master table should appear first, followed by its suffixed tables. In turn, the suffixed tables should be arranged in alphabetical order of suffix, as table 5, 5a, 5b, etc.

433. General objectives in usage.—Suffix letters should not be automatically assigned whenever the qualifying table relationships appear. Even within the framework of the basic principles of relationship and position, they are best used only—

a. To bring out the table relationships in a series where the relationships might be seriously obscured by the normal numbering scheme; or

b. In standard-table schemes to permit insertion of added information for certain areas or universes without disrupting either the standard table form or the standard numbering scheme.

434. Types of relationship to master table.—Three general types of relationship to the master table are most frequently found, as follows:

a. Component-part tables.—These are tables which basically constitute a single whole but are split apart (but follow one another) for reasons of convenience. The relationship is commonly stated as "Tables 5a, 5b, 5c, and 5d add up to table 5." More precisely, the addition of corresponding cells in tables 5a, 5b, 5c, and 5d totals to the entry in the corresponding cell of table 5. Where the data are more significant when presented by subgroup than when combined, the master or totality table may not appear.

(1) *When totality table appears.*—Suffixes identify the component-part tables as subordinate parts of the totality table.

(2) *When totality table does not appear.*—Suffixes unify the component-part tables by indicating that they are all part of the same basic presentation.

b. Expansion table following master table.—Here the suffixed table provides a more detailed distribution of only one of several physical parts of the master table; or it presents comparable data for only one of several components of the master-table data. Suffix use for this situation is largely confined to "extra" tables in a standard-table scheme.

(1) *More detailed distribution for one part of a master table.*—The suffixed table (such as table 5a) shows one panel (or block) of table 5 in greater detail than the form of table 5 permits or than it is practicable to present for all panels (or blocks) of table 5.

Example: Table 5 shows 5-year age groups by race, with panels for all classes, white, Negro, and other races. Additional age detail (single years) is desired for the white, not for the other race groups. A new table is inserted, therefore, showing single years of age for the white population, and becomes table 5a.

(2) *Comparable figures for one component of a master table.*—A special case of the component-part table scheme. Here, the figures are required separately for only one of the several components which make up the combined figures shown in the master table.

Example: Table 6 shows a given distribution for all races combined. Table 6a shows the same distribution for the nonwhite only. No table is presented for the other component, the white.

c. Derived table following a frequency table.—Where a frequency table is followed immediately by a table presenting a percent distribution for those figures (or medians, rates, etc., relating to them, or derived from them) the relationship may be expressed by a suffix letter.

This use of suffixes is common in standard table schemes where it is desired to present derived data for certain tables in certain areas only. In general, these added suffix tables should be treated as standard tables when so used. That is, table 7a for one area should correspond to table 7a for another.

Examples: (1) Table 5 presents frequencies. Table 5a presents a percentage distribution of table 5. (2) Table 7 presents frequencies. Table 7a presents the percentage relationship of cell frequencies in table 7 to corresponding cell frequencies in some other table. Table 7b presents averages for data in table 7. Note that the relationship between tables 7a and 7b is not direct, but both suffix tables are obviously related to table 7.

435. Summary and examples of suffix numbering.—The following summarizes and illustrates suffix numbering.

a. Component-part tables following totality table.—Assign the regular, or master, number to the totality table. Add a suffix to each component-part table and arrange alphabetically in order of suffix.

Right: Table 8 (totality); table 8a (male); table 8b (female)

Wrong: Table 8a (totality); table 8b (male); table 8c (female)

b. Component-part tables without totality table.—Frequently these are mis-numbered. If the totality table is not present, the regular or master number (standing alone) should not be assigned to any table. However, the component-part tables should carry suffixes as though the master table were present.

Right: Table 8a (male); table 8b (female)

Wrong: Table 8 (male); table 8a (female)

c. Derived tables following frequency tables.—Here, the master or base table should carry a regular number without a suffix. The derived table should carry a suffix. If there is more than one derived table, arrange them in order of analytical or reference convenience and assign suffixes alphabetically.

Right: Table 8 (frequency or base table); table 8a (percent distribution); table 8b (medians)

Right: Table 8 (frequency table); table 8a (medians); table 8b (cells in table 8 as percent of cells in some other table)

Wrong: Table 8a (frequency table); table 8b (first derived table); table 8c (second derived table)

d. Expansion tables (all types).—The same principle applies as for derived tables. The master table should carry a regular number without a suffix. The expansion table should carry the suffix *a*. If more than one expansion table appears, arrange them in analytical or reference order and assign suffixes alphabetically.

Right: Table 8 (master table—age by race); table 8a (single years for white)

Wrong: Table 8a (master table); table 8b (single years for white)

Right: Table 8 (all races combined); table 8a (nonwhite only)

Wrong: Table 8a (all races); table 8b (nonwhite only)

Chapter 5

THE HEADNOTE (501-523)

Sec. 5-A. General (501-506)

501. Definition and function.—A statement (or statements) enclosed in brackets and appearing between the table title and the top rule of the table.

In general, the headnote is a means of providing information (essential to the understanding of the data) when the point in question cannot be made clear elsewhere in the table or is too general for effective handling in footnotes.

Specifically, the headnote provides information qualifying, explaining, or otherwise relating to—

- a. The table as a whole (primary function);
- b. An easily identified major portion of the table; or
- c. A *constantly recurring* specific term, abbreviation, or situation.

502. Relationship of headnote to title.—Both the headnote and title have as their primary function the explanation or description of the table as a whole. Their close relationship is manifested in two principal ways; that is, the headnote may act—

- a. As a *limited form of subtitle*.—The headnote frequently provides additional title information crowded out of the title because of the need for brevity; or
- b. As a *title footnote*.—The headnote may define a term in the title or qualify a specific statement made there. In this way it acts as a footnote to the title without the necessity of a reference symbol. This is one of the most important uses of the headnote.

Formal footnotes to titles (reference symbol in title and footnote at bottom of table) are undesirable. Usually, they reflect a contradiction in function. Ordinarily, a title footnote represents a misplaced headnote.

503. Relationship of headnote to footnote.—A sharp distinction must be drawn here if confusion in usage is to be avoided. The *footnote* is used to explain or qualify a specific cell, line, column, or portion of the table which is clearly identified by placement of the given reference symbol. In contrast, the *headnote* primarily qualifies the table as a whole; its secondary use to explain a particular part of the table should be sharply restricted since the user is not given a warning

This use of suffixes is common in standard table schemes where it is desired to present derived data for certain tables in certain areas only. In general, these added suffix tables should be treated as standard tables when so used. That is, table 7a for one area should correspond to table 7a for another.

Examples: (1) Table 5 presents frequencies. Table 5a presents a percentage distribution of table 5. (2) Table 7 presents frequencies. Table 7a presents the percentage relationship of cell frequencies in table 7 to corresponding cell frequencies in some other table. Table 7b presents averages for data in table 7. Note that the relationship between tables 7a and 7b is not direct, but both suffix tables are obviously related to table 7.

435. Summary and examples of suffix numbering.—The following summarizes and illustrates suffix numbering.

a. Component-part tables following totality table.—Assign the regular, or master, number to the totality table. Add a suffix to each component-part table and arrange alphabetically in order of suffix.

Right: Table 8 (totality); table 8a (male); table 8b (female)

Wrong: Table 8a (totality); table 8b (male); table 8c (female)

b. Component-part tables without totality table.—Frequently these are misnumbered. If the totality table is not present, the regular or master number (standing alone) should not be assigned to any table. However, the component-part tables should carry suffixes as though the master table were present.

Right: Table 8a (male); table 8b (female)

Wrong: Table 8 (male); table 8a (female)

c. Derived tables following frequency tables.—Here, the master or base table should carry a regular number without a suffix. The derived table should carry a suffix. If there is more than one derived table, arrange them in order of analytical or reference convenience and assign suffixes alphabetically.

Right: Table 8 (frequency or base table); table 8a (percent distribution); table 8b (medians)

Right: Table 8 (frequency table); table 8a (medians); table 8b (cells in table 8 as percent of cells in some other table)

Wrong: Table 8a (frequency table); table 8b (first derived table); table 8c (second derived table)

d. Expansion tables (all types).—The same principle applies as for derived tables. The master table should carry a regular number without a suffix. The expansion table should carry the suffix *a*. If more than one expansion table appears, arrange them in analytical or reference order and assign suffixes alphabetically.

Right: Table 8 (master table—age by race); table 8a (single years for white)

Wrong: Table 8a (master table); table 8b (single years for white)

Right: Table 8 (all races combined); table 8a (nonwhite only)

Wrong: Table 8a (all races); table 8b (nonwhite only)

Chapter 5

THE HEADNOTE (501-523)

Sec. 5-A. General (501-506)

501. Definition and function.—A statement (or statements) enclosed in brackets and appearing between the table title and the top rule of the table.

In general, the headnote is a means of providing information (essential to the understanding of the data) when the point in question cannot be made clear elsewhere in the table or is too general for effective handling in footnotes.

Specifically, the headnote provides information qualifying, explaining, or otherwise relating to—

- a. The table as a whole (primary function);
- b. An easily identified major portion of the table; or
- c. A *constantly recurring* specific term, abbreviation, or situation.

502. Relationship of headnote to title.—Both the headnote and title have as their primary function the explanation or description of the table as a whole. Their close relationship is manifested in two principal ways; that is, the headnote may act—

- a. **As a limited form of subtitle.**—The headnote frequently provides additional title information crowded out of the title because of the need for brevity; or
- b. **As a title footnote.**—The headnote may define a term in the title or qualify a specific statement made there. In this way it acts as a footnote to the title without the necessity of a reference symbol. This is one of the most important uses of the headnote.

Formal footnotes to titles (reference symbol in title and footnote at bottom of table) are undesirable. Usually, they reflect a contradiction in function. Ordinarily, a title footnote represents a misplaced headnote.

503. Relationship of headnote to footnote.—A sharp distinction must be drawn here if confusion in usage is to be avoided. The *footnote* is used to explain or qualify a specific cell, line, column, or portion of the table which is clearly identified by placement of the given reference symbol. In contrast, the *headnote* primarily qualifies the table as a whole; its secondary use to explain a particular part of the table should be sharply restricted since the user is not given a warning

at the place where the data actually appear. These restrictions are indicated below. Where the specified situations do not exist, explanations of major portions of tables, specific terms, etc., should be handled in footnotes.

a. Headnote relating to an easily identified major portion of the table.—Properly restricted to cases where either—

(1) The given major portion is referred to in a title statement which, in itself, needs qualification or explanation, or

(2) The table arrangement is such that the table portion referred to cannot be clearly indicated by placement of a footnote reference symbol. In some cases, there may be no place to put the symbol within the table. In other cases, the limits of the mass of data to which the symbol refers may not be clear.

b. Headnote explaining specific terms, abbreviations, etc.—Properly restricted to cases of *constant recurrence*; that is, to cases where the given item keeps recurring and the resultant multiplicity of identical recurrent footnotes would detract from the presentation rather than add to it.

A special case of this type, frequently encountered, is the headnote explanation of a standard reference symbol (such as an asterisk), a mathematical sign (such as a minus sign appearing in a column headed "Increase"), or a standard code symbol used throughout the table. Here the symbol or sign is not only recurrent; it is so distinctive that once noted the reader tends to carry its meaning in his mind. Note, however, that recurrent reference symbols in the form of numbers (2) are properly explained in footnotes; never in headnotes.

504. General restrictions on headnote use.—To be included in a headnote, a statement should be *both* (a) essential to the understanding of the data and (b) a point which cannot be made clear in the title or in the table proper. The ideal table would carry no headnote since in the ideal situation all of these points would be brought out clearly in the title, box, or stub. Following are several general injunctions as to headnote inclusion.

a. Avoid using headnotes where possible but do not hesitate to insert them where needed.

b. Avoid using headnotes for general discussion or for explanations of general interest. Such discussions or statements usually belong in the text.

Note: If it is impracticable to include text in the report, or the text must be closely restricted as in the *Statistical Abstract of the United States*, the burden of general definition and qualification must fall largely upon the headnote. This does not affect the general rules provided here. It merely exemplifies necessary adaptation to an extreme situation.

c. Rely upon text for definitions of terms. Headnote only where the term is not used as defined in text or is subject to gross misinterpretation.

d. Do not present in the headnote an explanation common to all tables in the series unless the omission is likely to result in a definite misapprehension. Place the explanation in the text.

e. In general, do not use headnotes to refer to text for an explanation which (1) the user would normally expect to find in the text, or (2) could not logically be found anywhere else.

f. Unless a given table has been designed specifically to make possible the presentation of a chart, avoid headnotes which imply that the chart is the reason for the table's existence, such as "Statistics for chart IX."

Where charts are prepared to facilitate grasp of general relationships, the user should be directed to a source table for the figures. Indicate the tabular source upon the chart as "SOURCE: TABLE 12" or "See table 12." The headnote of table 12 might well include the statement "See also chart IX."

505. Repetition on "continued pages" of multipage table.—Four practices are described here, listed in order of preferred usage.

a. Repeating headnote in full.—A common Census Bureau practice is to repeat the headnote in full on each page of the table. This method simplifies operations, particularly when standard table forms¹ are used. It is least successful in the case of extremely long headnotes.

b. Omitting headnote on continued pages.—This method is theoretically sound since a headnote placed at the beginning of the table covers the entire table. In practice, short headnotes can be repeated without material trouble and the user is helped by them. Omission on continued pages is best practiced where the headnotes are necessarily long and detailed.

c. Inserting reference to first page.—Here, the continued pages carry a headnote reading "See headnote, p. —," or "See headnote at beginning of table." This warns the user, and the reference occupies little space on the continued pages.

d. Repeating pertinent portion only.—This practice provides for repetition (on continued pages) of only that portion of the headnote applying specifically to the given page. In using this scheme several precautions are necessary.

(1) First establish the basis of selection. Then make sure that the same criteria are applied for each continued page. (The full headnote is shown on the first page.)

(2) Review each continued page after it is in type, or typed for offset, to make sure that paging and make-up adjustment have not so shifted the data that the headnote portion shown no longer applies.

(3) Avoid footnotes on continued pages reading merely "See headnote." Where used, be sure the portion of the headnote at the top of that page contains the information needed. It may not occur to the reader to turn back to the first page where the entire headnote appears. (See par. 615b.)

506. Practices to avoid.—Several questionable practices are sufficiently common to warrant special attention.

a. Arbitrary restriction of headnote to a single statement.—Based on a false premise, this idea is incorrect in theory and causes serious trouble in application. The headnote should be kept as brief as possible, but as many statements should be included as the needs of the presentation demand.

b. Footnoting headnotes.—A footnote to a headnote is like a footnote to a footnote. Both are incorrect.

c. Beginning with "Note:."—The headnote should not begin with "Note:" or "General note:." The existence and placement of the note are sufficient to identify it as such; the use of brackets makes clear it is not a subtitle. There

¹ That is, page forms printed in advance with identical stubs, boxheads, headnotes, and titles. Then the cell entries are filled in for different areas. Where the same preprinted page form is used for all pages of a multipage table, the complete headnote will automatically appear on all pages.

is no more reason to identify it by starting with "Note:" than there is for placing "Title:" at the beginning of each title.

(See also pars. 615a-615c, which discuss objections to the footnoting of titles and the use of footnotes reading "See headnote.")

Sec. 5-B. Specific Use of the Headnote (511-513)

511. General.—The following lists of specific uses, and the examples cited, are subject to two important qualifications.

a. Illustrative only.—The categories listed, and the examples cited, are merely illustrative of headnote problems frequently encountered in Census Bureau work.

(1) **Not all-inclusive.**—Equally appropriate headnote instances may arise which are not covered here.

(2) **Not mutually exclusive.**—Examples cited under one category may apply equally well under another category, depending upon the wording of the table title, the treatment of data in the table, or the point of view.

(3) **Wording not standardized.**—The wording of any particular example is not to be construed as representing the "standard" wording for that particular situation. Such wording may properly vary depending upon the purpose and circumstances of the presentation. In part, such variation tends to be a function of the given report. Within any one report identical situations should be handled identically.

b. Headnoting permissible; not mandatory.—The cases cited represent permissible situations. A headnote should not be inserted in any table merely because the prototype is included in these lists. Headnotes should be used when they are essential to the understanding of the data, not otherwise.

512. Qualifying table as a whole or an easily identified part of it.

a. To define or specify the unit of presentation. In a long headnote, place the unit of presentation at the beginning, preferably in boldface type.

[In tons of 2,000 pounds]

[Number of persons 14 years old and over working the equivalent of 2 or more days during specified weeks]

b. To define, clarify, or qualify the title as a whole, or any part of it:

[Data for irrigated farms limited to 20 specified States in 1940]

[Exclusive of stillbirths]

c. To describe the enumerative or reporting base or coverage, particularly when it differs from table to table:

[Based on Sample D]

[Complete census returns]

[Based on incomplete reports; totals may differ from those in table X which represent complete coverage]

d. To indicate limitations of the data or reliability of estimates:

[Statistics for 1946 are subject to sampling variation. Figures identified by an asterisk (*) are subject to particularly large sampling variation and should be interpreted with special caution. See text statement "Reliability of estimates"]

e. To indicate the basis of selection of areas or items shown:

[Figures for nonwhite shown separately for areas having, in 1940, 25,000 or more nonwhite women 15 to 49 years old]

[Limited to stores which report an analysis of their sales by commodities]

f. To describe the method of reading an involved table:

[The first column shows the number of births which occurred in the given city, regardless of whether the mothers' permanent home was in that city. The second column shows the number of births to mothers whose permanent home was in that city, regardless of whether the births occurred in that city or elsewhere]

g. To refer the user to the text or to a related table:

[For definitions of terms, see text, p. 24]

[For total number on all farms (base for percentages), see table 652]

h. To qualify or explain the significance of an implicit characteristic of the presentation:

[Figures prior to 1916 relate to years ending June 30, thereafter to calendar years]

j. To warn against an unsound interpretation:

[Relative wealth of the several States is not shown by these figures because of differences in the basis of assessment and practices thereunder]

[Increase from census to census includes that due to annexation of territory as well as to direct growth]

k. To specify source of data where a source note does not appear at the bottom of the table:

[Based on detailed table 24]

[Figures for 1940 are those reported in the census for that year. Estimates of future population are reproduced with the cooperation of the National Resources Planning Board and of Warren S. Thompson and P. K. Whelpton, of the Scripps Foundation for Population Research, who prepared them for the National Resources Committee]

513. Qualifying a constantly recurring factor.—A headnote may be used to qualify or explain a constantly recurring specific term, abbreviation, or situation in order to avoid the multiple recurrence of a standardized footnote.

a. To explain the significance of a standardized reference symbol such as an asterisk (*):

[For explanation of asterisk (*), see text statement, "Coefficient of Variation"]

[Places marked with an asterisk (*) were classified as urban in 1940]

b. To explain significance of a mathematical sign, such as a minus sign (—) in an "Increase" column:

[A minus sign (—) denotes decrease]

c. To indicate that derived data are not shown where less than a specified value or where based on less than a given amount or number:

[Percent not shown where less than 0.1 or where base is less than 100]

d. To define or qualify a term constantly recurring in the box or stub:

[Figures for "All dwelling units" include vacant units]

Sec. 5-C. Wording of the Headnote (521-523)

521. Frame of reference.—Headnotes can be shortened, and phrasing simplified, by taking into account the basic frame of reference of the table. The headnote is an integral part of the table and should be handled accordingly.

a. Basic reference is to table.—Headnote statements, by definition, refer solely to information shown in the given table unless otherwise specified. This basic principle affects headnote wording in two ways.

(1) It reduces the need for specifying "*These statistics*" or "*Statistics in this table*" when referring to the data in general.

Terse: [Based on Sample D]

Verbose: [The statistics in this table are based on Sample D]

(2) It requires specification of the category or item referred to if the statement does not apply to the entire table.

Vague: [Based on Samples C and W]

Clear: [Statistics for 1940 based on Sample C; those for 1910 based on Sample W]

Clear: [Statistics based on Sample D except "total population" which represents result of a complete census]

b. Order of wording.—The headnote should start with that which the reader can see, or is likely to assume, and move to that which is not apparent or not known to him. The reader should not be asked to read an explanation before he discovers what is being explained; or to read a qualification of an item before he discovers what the item is.

Accurately stated: [Because of differences in the basis of assessment and practices thereunder, figures do not show the relative wealth of the several States]

But this is better: [Relative wealth of the several States is not shown by these figures because of differences in the basis of assessment and practices thereunder]

522. Need for brevity.—Under the best of circumstances, headnotes are hard to read. Special attention needs to be paid to brevity, but clarity must come first. The following should be kept in mind:

a. The coverage of many different points prevents rapid reading and reduces the chance that any one part will be noted.

b. Reader patience is quickly exhausted because of—

(1) **Mechanical reasons:** The smallness of type and great length of line make headnotes hard to read.

(2) **Content and form:** Headnotes are parenthetical in nature. Frequently, they comprise a series of unconnected ideas. This makes them hard to comprehend.

523. Style.—Headnotes should be written in telegraphic style. Articles and other parts of speech not essential to understanding may be omitted. Standard conventionalized phrasing should be used wherever possible. Use the same abbreviations and phrasings in the headnote as in the remainder of the table. Unrelated statements should not be joined by a semicolon merely to reduce the number of headnote "sentences." Use as many sentences as required.

Lower case is used throughout the headnote; do not use caps and lower case.² The entire headnote is enclosed in brackets. Where individual tables are typewritten for inclusion in correspondence, parentheses may be used instead of brackets, *provided* that parentheses are not also used within the headnote.

No period at end.—No period should appear at the end of the headnote even though the last statement is a complete sentence. Periods are used internally where sentence structure warrants them. (In contrast, footnotes always end with a period.)

² This is in Caps and Lower Case. This is in lower case.

Chapter 6

THE FOOTNOTE (601-665)

Sec. 6-A. General (601-606)

601. Types of footnotes.—As the term implies, any statement or note inserted at the foot (or bottom) of the table may be considered a "footnote."

In practice, it may take one of three distinct forms, each subject to its own rules and conditions of proper usage. The three forms may be identified as follows:

a. **The specific footnote**, involving reference to a specifically designated portion of the table.

b. **The source note**, used to indicate the source of the data. This might reasonably be considered a distinctive component of statistical tables rather than a type of footnote. It is included here as a matter of convenience in discussion.

c. **The general footnote**, involving reference to the table as a whole or major portion of it.

602. Scope of discussion.—Most problems of footnoting arise in connection with the specific footnote. The general footnote is virtually never used by the Bureau of the Census since its normal function is adequately taken care of by the use of the headnote. The source note involves the dual problem of appropriateness of insertion and correctness of wording. The latter problem (correctness of wording) involves technical practices in the field of bibliographical reference, a subject not within the scope of this manual. However, a general discussion of the source note is included as section 6-C.

In the present section (sec. 6-A) each of these three forms of footnotes is defined. The definition of the general footnote is accompanied by a brief statement of appropriate use. No further discussion of it is provided in this manual.

603. The specific footnote defined.—Located at the bottom of the table, the specific footnote is a "keyed" statement which qualifies, describes, or explains the information presented in (or omitted from) a specific cell, column, line, or group of columns or lines; or defines or clarifies the meaning of a stub or box entry. "Keyed" means that the item (or items) thus qualified is assigned a reference symbol which is repeated at the beginning of the footnote, thereby relating the footnote

to the point (or points) of reference. For detailed discussion of the specific footnote, see section 6-B; for discussion of the use of reference symbols, see section 6-D.

Example: ² Includes 439 farms reporting no land owned or leased.

For the purposes of this manual, the specific footnote is considered the "normal case." References to footnote practices appearing throughout this book relate to the specific footnote unless otherwise specified.

604. The source note defined.—Generally located at the bottom of the table, the source note is a statement indicating the specific source of the statistics, or of a designated portion of them. (See sec. 6-C.) On occasion, it may comprise the headnote, or appear as a part of it.

General example:

Source: Federal Security Agency, Social Security Board, Bureau of Employment Security; Social Security Yearbook, 1942.

605. The general footnote defined.—(Rarely used by the Bureau of the Census.) Located at the bottom of the table, the general footnote is a statement which qualifies, describes, or explains the table as a whole, or an easily identified major portion of it. It is introduced by the word "Note" or "General note" followed by a colon.

Comparison of the above definition with that for the headnote (see par. 501) will show a virtual identity in concept. This fact, a cause of considerable confusion in the field of table design, may be attributable in part to historical development. The headnote appears to be a comparatively recent innovation intended to bring to the early attention of the reader important information which otherwise might not be brought to his notice until the end of the table is reached. The reasoning involved may be likened to that which has established as Census Bureau practice the placement of group totals above, rather than below, their component parts.

606. The general footnote: Restricted use.—The general practice of the Bureau of the Census restricts the use of the general footnote to—

a. Tables presented without titles, such as text tabulations, or the special case of the release table without title (see par. 125). Here, the headnote cannot be used since it is physically an adjunct of the title. Where the data affected are sufficiently localized within the table (which has no title) to permit placement of a reference symbol, such headnote-type of statement ordinarily should be inserted as a specific footnote. Where the localization of reference is impracticable, or where a multiplicity of identical footnote reference symbols would result, the general footnote may be used.

Examples (placed at bottom of tables without titles):

Note: Statistics exclude 6 counties for which data were incomplete.

Note: Median not shown where base is less than 100.

b. Tables presented without text; specifically, tables accompanying correspondence. At times it is desirable to confine a transmitting letter or memorandum to nontechnical material and to include detailed technical explanations or notes on the tabular attachment. The use of the general footnote is appropriate where the desired explanation is too long to permit incorporation in the headnote or the nature of the discussion makes headnoting inappropriate. Usually such notes consist of a discussion or detailed explanation of the data in technical terms.

Sec. 6-B. The Specific Footnote (611-615)

611. Purpose of specific footnote.—The specific footnote is a means of providing information essential to the understanding of the particular datum or data to which it is keyed by the given reference symbol. (The term "footnote" as used in the following materials is to be interpreted as meaning "specific footnote.")

612. Relationship of footnote to headnote.—A sharp distinction must be drawn here if confusion in usage is to be avoided. The *footnote* is used to explain or qualify a specific cell, line, column, or portion of the table which is clearly identified by placement of the given reference symbol. The *headnote* primarily qualifies the table as a whole. Its secondary use to explain a particular part of the table is sharply restricted. These restrictions are indicated in some detail under the discussion of the headnote (see par. 503). Where the situations specified in that statement do not exist, explanations of major portions of tables, specific terms, etc., should be handled in footnotes.

613. Relationship between footnote, headnote, and title.—The title describes the main features of the table. The headnote may relieve the title of a portion of this burden by describing general features of the table or by qualifying specific title statements. The footnote is required when a highly specific part of the table (below the headnote) must be explained. The relationship between the title and headnote is frequently close; that between the title and footnote is usually remote. Title-footnoting is undesirable since one of the primary functions of the headnote is to act as a footnote to the title without use of a reference symbol.

614. General restrictions on footnote use.—To be included in a footnote a statement must be *both* (a) absolutely essential to the understanding of the data, *and* (b) a point which it has not been practicable to make clear in the title, headnote, boxhead, stub, or field. The ideal table would carry no footnotes since in the ideal situation all such points would be brought out clearly elsewhere in the table. The general injunctions concerning headnote usage described in paragraphs 504a to 504e, inclusive, may be applied also to the use of footnotes.

615. Practices to avoid.—Several questionable practices are sufficiently common to warrant special attention.

a. Footnoting titles.—Title footnotes represent a contradiction in function. Qualification of title is one of the most important and obvious purposes of the headnote. Practically all headnotes qualifying the table as a whole would qualify as title footnotes if such a practice were adopted generally.

An extreme case, sometimes encountered, is where a given qualification is placed in a headnote where it belongs, but the title is also footnoted with the footnote reading merely "See headnote." This interrupts the user when reading the title and sends him to the bottom of the page (or to the end of the table if the footnotes are assembled there) only to tell him to look up to the top (or at the beginning) again.

b. Footnotes reading "See headnote."—An extreme case of this type has been cited immediately above in connection with title-footnoting. The more common case arises from overcaution of the table-designer. That is, after inserting a headnote to qualify a recurrent item, column head, etc., the table-designer fears that it may be overlooked by the reader. Therefore, he also inserts a footnote reference symbol against the particular item. Recognizing the absurdity of repeating the statement at the bottom of the page he tries to get around the problem by making the footnote read "See headnote."

Such overcaution may defeat its purpose since the result is likely to distract and even annoy the reader. Where this overcaution is coupled with concentration of notes at the end of a multipage table the result can be infuriating. If, in addition, the full headnote is not repeated on every page, the footnote injunction "See headnote" may be misleading since the reader is likely to glance at the portion of the headnote appearing at the top of the last page (where the footnote statement appears) and find that no part of that headnote applies.

Solution: Either the statement should appear in the headnote and the footnote reference omitted from the item or column head; or the headnote statement should be omitted and the explanation restricted to the footnote.

Undesirable method:

TABLE 5.—POPULATION BY AGE AND COLOR: 1940 AND 1930

[Figures for 1930 white population revised to include Mexicans classified as nonwhite in the 1930 reports]

Age	1940			1930		
	Total	White	Nonwhite	Total	White ¹	Nonwhite
All ages.....	1,243	957	286	1,126	842	284
Under 45 years.....	759	592	167	681	490	191
45 and over.....	484	365	119	432	347	85
Not reported.....				13	5	8

¹ See headnote.

Preferred methods: (1) Omit the footnote reference symbol and the footnote; rely upon the headnote. (2) Another solution would be to omit the headnote and retain the footnote. In the case illustrated, the first solution is better since, actually, both the white and nonwhite figures are affected.

c. Footnoting headnotes.—A footnote to a headnote is like a footnote to a footnote. Both are incorrect.

d. Beginning with "Note."—Wrong for a specific footnote since the presence of the reference symbol identifies it sufficiently. Necessary for a general footnote.

e. Footnoting beyond the level of significance.—Avoid footnoting for detail beyond the level of significance. This can become a nuisance to both the producer and the user. Thus, when presenting data in considerable detail it may be necessary to call attention to deficiencies of statistics in the more detailed level of classification. But when the qualified data are submerged in a presentation confined to totals for major groups, qualification of details not shown separately may become statistically insignificant or even inapplicable. In such cases the footnotes may be omitted.

Example A: When dealing with areas, it is reasonable to footnote data up to the county level for deficiencies concerning the minor civil divisions listed. Carrying such footnotes to the State totals would rarely be appropriate; carrying them to geographic division or region totals, or to United States totals, would rarely be necessary.

Example B: When showing data for manufacturers classified according to detailed lists of products, it may be important to indicate that products of a particular type which might be expected to be included in subgroup A are actually included in subgroup C. If both of these subgroups are in the same major group, then this footnote would be inapplicable in any presentation confined to major group totals with the affected subclassifications not shown separately. However, shifts of this type involving subgroups in two different major groups must continue to be noted.

f. Failure to footnote at all points of recurrence.—A footnote applies only to the items covered by the reference. Its effect is not carried to other points of recurrence of the same stub or column listing. Therefore, in a recurring situation the footnote should appear at each point of recurrence, not merely the first time. This goes back to a basic principle of footnoting; that is, that the absence of a footnote may provide as specific information as its presence but in the *opposite direction!*

(1) *Omission of footnote without warning.*—The examples assume that the stub listing "Widowed and divorced" occurs twice in a given table, footnoted the first time but not the second. The footnote gives no warning that it is supposed to apply throughout the table.

Example C-1. First occurrence:

Single.....
Married.....
Widowed and divorced¹.....

¹ Includes unknown marital status.

Example C-2. Second occurrence:

Single.....
Married.....
Widowed and divorced.....

Interpretation: This combination clearly states two things to the reader. On the first occurrence, the *presence* of the note warns him specifically that "Widowed and divorced" includes persons of unknown marital status (not normally so included in that category). On the second occurrence, the *absence* of the note (in view of its presence on the first occurrence) clearly implies that "Widowed and divorced" covers exactly what the listing states; that is, it does *not* include persons of unknown marital status.

(2) *Warning the reader of subsequent omission.*—The situation is scarcely improved by including in the above footnote a warning that it covers all recurrences, thus:

Example D:

¹ Throughout this table (or series of tables) the category "Widowed and divorced" includes persons of unknown marital status.

Firstly, the reader is given no warning at the *point of recurrence* that the affected statistics are qualified elsewhere. This is particularly likely to be serious in a multipage table.

Secondly, this is obviously a headnote-type of statement.

Exception: On rare occasions, this practice may be justified where all three of the following conditions exist: (a) No other practicable means is available, (b) the qualification is noted solely for the sake of the record, and (c) its effect on the data is statistically negligible.

(3) *Solution:* Either use a recurrent footnote or a headnote. If neither is practicable, examine the possibility of inserting an explanation in the accompanying text, if any. It is more reasonable to expect the reader to examine the text than to expect him, upon referring to certain figures, to examine all footnotes on all previous pages on the chance that a qualification of the given figures may have been stated there but not repeated. This difficulty does not arise with the headnote since the reader is obligated to read it, just as he is obligated to read the table title.

Sec. 6-C. The Source Note (621-624)

621. The source note defined.—Generally located at the bottom of the table, the source note is a statement indicating the specific source of the statistics or of a designated portion of them. On occasion, it may comprise the headnote, or appear as a part of it.

General example:

Source: Federal Security Agency, Social Security Board, Bureau of Employment Security; Social Security Yearbook, 1942.

622. General principles.—Where a table presents survey results directly and the report is a primary source, source notes are not needed since the report itself is the source.

Where the tables include data from other surveys for background or comparison, or where the report is secondary in nature, each table should have a source note so that the user may, if he wishes, examine the figures in the original setting or obtain additional detail.

By "primary source" is meant, generally, the first report of a survey (or given phase thereof) prepared by the responsible agency. By "secondary source" is meant any document making use of, or presenting, data previously published elsewhere; that is, in an earlier report of the same agency or in a report issued by another agency.

Most publications of the Bureau of the Census constitute primary sources since their function is to report to the using public the basic results of censuses and surveys conducted by the Bureau. For this reason, the source note, as such, is given only cursory treatment here. The *Statistical Abstract of the United States* may be referred to for its many examples of source notes.

623. Appropriate use.—In general, the source note serves two functions: (a) It refers the user to the original source, and (b) it gives credit to the originating person or organization.

From a statistical reference standpoint the first function is more important. However, the second function must not be overlooked, particularly where the information originates *outside* the Bureau of the Census.¹ Where Bureau records and reports are involved, the statistical reference aspect assumes paramount importance.

General rule: If material is used originating outside the Bureau of the Census¹ always give credit in Bureau reports, even though statistically the reference is neither significant nor particularly useful. If the data originate inside the Bureau of the Census,¹ let the statistical reference usefulness decide.

Specific rules: Ordinarily, in Bureau of Census operations, the source is cited only when all, or a portion, of the statistics shown in the table have been transcribed, abstracted, or adapted—

a. **From a document or volume published outside of the Bureau of the Census.**—If the figures as cited differ in any way (other than rearrangement) from those in the report from which taken, the source note should so state, or at least imply, by use of such opening terms as shown in the following examples:

Examples:

Source: Based on data from..... Includes Bureau of Census adjustments for.....
Source: Adapted from.....
Source: Selected from.....

b. **From information furnished in unpublished form by a source outside the Bureau of the Census.**—Here the citation should refer to the organization or government department or bureau from which the information has been obtained.

If based on general worksheets or records the source note may so indicate by using the terms "Not published elsewhere" or "Official records." If transcribed or adapted from a manuscript not yet published, the formal name of the manuscript may be cited with an appended statement "In press," "In preparation," or "Unpublished manuscript," as the circumstances warrant. (See par. 624.)

Examples:

Source: U. S. Department of the Interior, Bureau of Reclamation. Official records.
Source: U. S. Works Projects Administration, Division of Research, Statistics, and Finance; Manual of Instructions for the Preparation of Text, Tables, Charts, Maps, etc., for Publication Purposes. Unpublished manuscript.

c. **From information prepared by, or abstracted from the published reports of, Subject Divisions of the Bureau of the Census other than the Division issuing the table which is being footnoted.**—A rule of reason should be followed here with primary emphasis upon direct usefulness to the user. Thus, in a report of the Bureau of the Census, there is little point in indicating source for a single population figure. On the other hand, there may be a great deal of value to the user in an indication of the source of figures involving a detailed subclassification in a specialized field.

Examples:

Source: Bureau of the Census, Sixteenth Census Reports. Agriculture. Territories and Possessions, p. 112.
Source: Bureau of the Census. Facts for Industry, Series M35a. Farm Machines and Equipment, 1945, p. 24, table 7.
Source: Bureau of the Census. State and Local Government Special Study, No. 20 (final). Financing Federal, State, and Local Governments, 1941, p. 17.

¹ Assuming that the Bureau of the Census is the agency preparing the table on which the source note is to appear.

d. From the detailed tables of a given report for use in text tables at the beginning of the same report.—Here again, the use of a source note should be restricted to cases where it will be of significant help to the reader. This type of source note is frequently inserted in the headnote.

Examples:

Source: Detailed table 19.

Source: Derived from basic data shown in table 32 for Illinois.

624. Citation of manuscripts not yet published.—Two rules should be observed rigorously. *First*, a manuscript or report which has not been published should never be cited without appending an indication of status, as "In press," "In preparation," etc. *Second*, misuse of the term "In press" should be guarded against. It means exactly what it says; that is, that the report or volume is physically in the printing office with instructions to print. It does *not* mean that it is ready for the printer or that it will be sent to the printer shortly.

The reason why the term "In press" should be maintained inviolate should be clear. From the standpoint of the future user, there is little distinction between a volume indicated as existent (in published form) in a source note written five years earlier, and a volume described as "In press" at that earlier date. In either case, the future user expects that the volume cited will be in existence in printed form (at that future time), that it will be titled exactly as cited, and that it will contain the material credited to it.

The following usages are suggested:

- a. Use "In press" if the manuscript is physically in the hands of the printer with instructions to print.
- b. Use "In preparation" where work on the report is actually under way and printing plans are reasonably definite.
- c. Use "Unpublished manuscript" if the work has been halted after substantial completion (including at least a first draft of the text), and final completion is uncertain. Use this term also where a report has been completed but printing plans are uncertain.
- d. Use "Official records" if the material cited is from material which it is not planned to publish, or where a report on the subject is merely contemplated.
- e. When in doubt as to the exact status, do not use "In press." In general, "Official records," or "In preparation," are preferable or some other term that is indefinite as to the assured future existence of the unpublished volume.

Sec. 6-D. Reference Symbols: Type, Placement, and Sequence (631-640)

631. Reference symbol defined.—A reference symbol or reference mark is an identifying sign used to key together two or more physically distinct portions of a table or report. In tabular presentation it is typically used to refer the reader to a footnote, although occasionally a reference symbol (other than numerical) may be explained in a headnote.

Examples: ¹ 6,452 *791 ⁴ 38,512

632. Function and purpose.—The reference symbol refers the reader from one part of the table to another. Its presence in the stub, boxhead, or field warns the reader that an explanatory or informative statement bearing the same symbol may be found among the footnotes or in the headnote. Contrariwise, the presence of a footnote or headnote bearing a reference symbol indicates that the same symbol will be found elsewhere in the table, affixed to the data being qualified.

633. Types of symbols.—Three principal types of reference symbols are in common use in the general field of tabular presentation: Arabic numerals (¹); capital or small letters (^A) (^a); and arbitrary symbols such as the asterisk (*). Census Bureau practice is restricted almost entirely to Arabic numerals except for "recurrent reference" situations where the asterisk (*) is frequently used (see par. 640).

a. **Arbitrary symbols.**—The use of various arbitrary symbols such as the asterisk (*), dagger (†), paragraph mark (¶), etc., has largely been abandoned in general material because of their unsightliness and their inherent lack of position significance in terms of a series. That is, if several different footnote references are used in a given table, the location of any one of these arbitrary symbols provides no easily recognized guide as to where a preceding or succeeding symbol may be found. Their current use is largely restricted to material involving mathematical or chemical formulae where superior figures and letters (exponents, superscripts, etc.) are already used with a different meaning.²

b. **Alphabetical symbols.**—Capital or small letters are rarely used by the Bureau of the Census for reference symbols. Their one advantage over Arabic numerals lies in the lesser likelihood of confusion when a footnote reference symbol is placed against a numerical entry. This danger is reduced, however, where superior figures (see par. 633c) are used for reference symbols or where the reference symbol is otherwise elevated or is identified by a caret or its typewriter equivalent (/_).

c. **Arabic numerals.**—Superior figures, the preferred form of reference symbols, are available both in letterpress (type-set) and on many statistical typewriters. "Superior figures" or "superscripts" are figures which are smaller in size than those used for numerical entries, and are elevated in placement.

Examples: ¹²³⁴, etc.

634. Form of symbol for letterpress versus typing.—The proper form of symbol for letterpress and typewriter use is as follows:

a. **Letterpress.**—Use superior figures.

b. **Typing:**

(1) **Reproduction typing.**—Use superior figures.

(2) **Other typing.**—Use superior figures where available. Otherwise use full-sized figures set off as shown. In double-spaced typewritten material, elevate the symbol. The typewriter diagonal should always follow the underscore regardless of position of symbol in front or behind the item.

² A suggested sequence of arbitrary reference symbols is as follows: Asterisk (*), dagger (†), double dagger (‡), section mark (§), parallels (∥), paragraph mark (¶). Where more symbols are needed, these may be doubled in the same sequence: **, ††, §§, ∥∥, ¶¶.

638. Numbering sequence: General.—Whether in text or tables, footnote references are numbered in sequence reading from left to right on each line, beginning at the top and running down the table-page. This principle applies irrespective of continuity of numbering of references between table pages.

Note: In a parallel table, each pair of facing pages of the book is considered a single table-page, hence references are numbered in sequence across the pair of book pages.

639. Numbering sequence: Boxheads.—The boxhead presents special problems in placement sequence of reference symbols. In theory, the line-for-line rule (par. 638) is exchanged for a “level-for-level” principle, but its application is not self-evident except in the simplest cases. The primary problem, caused by the varying levels and depths of boxes, is “which boxes are to be considered as being on the same ‘line’ or ‘level’?” No completely satisfactory rule is available. Frequently, common sense is the only recourse.

Four distinct placement methods are described below, each differing in the criteria employed in determining coordinate level of box. Method A is recommended and may be expected to cover satisfactorily the vast majority of cases. The remaining methods are illustrated so as to provide a description of the several alternatives considered.

For illustrative purposes a fairly complex boxhead is presented (see fig. 12) with reference symbols in all columns. In practice such a multiplicity of reference symbols would be objectionable.

Method A. (Recommended.) Number in sequence reading from left to right on each box-level and from top to bottom within spanners—TOP LINE-UP.—The top rule of the given column or spanner head is used as a guide to determine the “level” for each individual box or spanner. For numbering purposes the boxhead is divided into as many vertical segments as there are columns or spanners rising to the top rule of the table.

The columns appearing under each top spanner are numbered downward with those on the same level (according to top line-up) numbered from left to right within the given spanner group. In the example shown in figure 12, three levels appear, comprised as follows:

First level: Column heads e and j, and spanners A and C.

Second level: Column heads f, k, and l; and spanners B and D.

Third level: Column heads g, h, m, and n.

The resultant sequence of numbering throws together the footnotes pertaining to related material. Also, the numbering may be said to follow the customary path of the eye when the boxhead is being read.

Method B. (Not recommended.) Number reading from left to right in each box-level across the entire table—BOTTOM LINE-UP.—Here the bottom rule of the given column or spanner is used as a guide to determine which boxes are on the same level. In the example in figure 12 the levels are as follows:

⁵ For definition of “spanner,” see par. 1202c.

FIGURE 12.—NUMBERING SEQUENCE FOR FOOTNOTE REFERENCE SYMBOLS IN BOXHEADS OF STATISTICAL TABLES (See par. 639)

Method A. Recommended. Number in sequence reading from left to right on each box-level and from top to bottom within spanners—TOP LINE-UP.

Stubhead ¹	Col- umn head e ²	Spanner A ³			Col- umn head j ⁴	Spanner C ⁵			
		Col- umn head f ⁶	Spanner B ⁴			Col- umn head k ¹⁰	Col- umn head l ¹¹	Spanner D ¹²	
			Col- umn head g ⁸	Col- umn head h ⁷				Col- umn head m ¹³	Col- umn head n ¹⁴

Method B. Not recommended. Number reading from left to right in each box-level across the entire table—BOTTOM LINE-UP

Stubhead ¹	Col- umn head e ⁶	Spanner A ²			Col- umn head j ¹⁰	Spanner C ⁵			
		Col- umn head f ⁷	Spanner B ⁴			Col- umn head k ¹¹	Col- umn head l ¹²	Spanner D ⁸	
			Col- umn head g ⁸	Col- umn head h ⁹				Col- umn head m ¹³	Col- umn head n ¹⁴

Method C. Not recommended. Same as method A except that the coordinate level of box is determined by the BOTTOM LINE-UP of individual boxes

Stubhead ¹	Col- umn head e ²	Spanner A ³			Col- umn head j ⁴	Spanner C ⁵			
		Col- umn head f ³	Spanner B ⁴			Col- umn head k ¹¹	Col- umn head l ¹²	Spanner D ¹⁰	
			Col- umn head g ⁸	Col- umn head h ⁷				Col- umn head m ¹³	Col- umn head n ¹⁴

Method D. Not recommended. Same as method B except that the coordinate level of box is determined by the TOP LINE-UP of individual boxes

Stubhead ¹	Col- umn head e ²	Spanner A ²			Col- umn head j ⁴	Spanner C ⁵			
		Col- umn head f ⁸	Spanner B ⁷			Col- umn head k ⁸	Col- umn head l ⁹	Spanner D ¹⁰	
			Col- umn head g ¹¹	Col- umn head h ¹²				Col- umn head m ¹³	Col- umn head n ¹⁴

First level: Spanners A and C.

Second level: Spanners B and D.

Third level: All the individual column heads irrespective of the height to which they rise.

This might be considered as a logical adaptation of the line-for-line principle. In practice it tends to be confusing since the distinction upon which coordinate level is based is too subtle for the reader.

Method C. (Not recommended.) Same as method A except that the coordinate level of box is determined by the **BOTTOM LINE-UP** of individual boxes.—In the example shown, the sequence tends to be illogical in terms of relationships.

Method D. (Not recommended.) Same as method B except that the coordinate level of box is determined by the **TOP LINE-UP** of individual boxes.—This pattern tends to be very confusing to the reader.

640. Footnoting a recurrent reference.—Frequently an identical situation may arise in more than one place within a table which demands qualification by an identical footnote. The same footnote reference symbol may be assigned at each appearance. Either a reference number or an arbitrary symbol such as an asterisk (*) may be used.

This device helps the user, who quickly discovers that footnote reference (3) (for example) always means the same thing. Also, it reduces the number of footnotes since the recurrent footnote statement is listed only once at the bottom of the affected page, or at the end of the table if the notes are gathered there. (For placement of recurrent-footnote statement, see par. 655.)

a. Use of common reference number.—If a common reference number is assigned, the number is determined by the position of its first appearance.

Example:

Color			
White	629	352	110
Nonwhite	185	78	15
Incomplete			

b. Use of asterisk.—The use of a common reference number for a recurrent footnote is necessarily confined to those cases where the reference numbering is on a table basis (see par. 636). Obviously, the use of a common reference number throughout the entire table is impracticable where numbering is on a table-page basis; that is, where symbols begin again with 1 on each page of table. Instead, an arbitrary symbol such as an asterisk (*) may be assigned to the recurrent item. Footnotes keyed with an arbitrary symbol are listed above those in a numbered series (see par. 656).

If desired, the qualification may be placed in a headnote, such as "[Asterisk (*) denotes . . .]," or "[. . . is denoted by an asterisk (*)]." Use of the headnote is not desirable if a common reference numeral is employed.

Sec. 6-E. Reference Range of Symbols (641-643)

641. General.—Correct placement of the reference symbol is imperative. Serious errors may be caused where the range of influence of the reference symbol is greater or less than that intended by the table-designer. Unless otherwise specified in the footnote, the reference range is as indicated below. See also fig. 13, p. 88. (For special problems relating to total cells, columns, and lines, see pars. 642-3.)

a. The cell.—A footnote reference placed within a given cell qualifies or explains that particular cell entry *only*. If entries in two cells are to be qualified similarly, a reference symbol must be placed in each, unless the table construction permits placement of the symbol against a stub entry or column head under the conditions outlined below.

b. Column head.—A reference number placed against a column head applies the footnote qualification to all entries in that particular column unless the footnote otherwise specifies. It does not apply to adjoining columns. If the qualification applies to some, but not all, of the entries in the given column it is important that this be made clear. The same principle applies to the spanner head; that is, a reference placed against it qualifies everything under it.

c. Stub entry.—Same principle as for the column head. A reference symbol placed against a stub entry applies the qualification to all entries on that particular line unless the footnote specifies otherwise.

d. Subhead in stub.—Theoretically, the same principle applies as for a spanner head in the box. However, an important practical difference must be noted. In the box, the spanner head is immediately above both the individual column heads and the columns of data. Hence it is easy for the user, while reading the figures, to note the presence of the reference symbol against the spanner. In the stub, however, the subhead is above the individual stub entries and, particularly where the listing is long, may be far removed from the cells where the figures appear.

For this reason, special caution should be observed when keying references to subheads of the stub. The least danger is involved when the footnote statement relates exclusively to a classification level in the stub, or a characteristic of the subhead itself. The greatest danger arises when the reader is expected to note and to remember that the qualification affects vitally the cell entries most remote from it.

Solution: No specific solution can be offered. In general, however, it is well to explore such possibilities as (1) use of the headnote to state the case; (2) placement of references in column heads; or, in extreme cases, (3) use of spanner heads within the field (see sec. 14-D), even though such heads are, in themselves, undesirable.

642. Footnoting "Total" cells, columns, and lines.—Because of the difference in viewpoint of the designer and user, confusion may result from incautious placement of reference symbols against cells, columns, or lines containing total entries.

a. From designer's viewpoint.—The designer, who has built up the statistics, is likely to think of the total entry in its mathematical sense; that is, as the summation of its component parts, wherever found in the table. Hence, he may feel that any qualification of all component parts is made clear by a single reference number placed against the total.

FIGURE 13.—RANGE OF REFERENCE OF FOOTNOTE SYMBOLS (Pars. 641-643)

[The range of reference of footnote symbols is as indicated by the dotted lines]

Example A. Reference symbols in boxhead:

Area and age	All classes			White ²			Nonwhite		
	Total ¹	Male	Female	Total	Male	Female	Total	Male	Female
UNITED STATES									
All ages.....	2,385	1,197	1,188	2,065	1,030	1,035	320	167	153
Under 45 years.....	1,276	646	630	1,105	556	549	171	90	81
45 years and over.....	1,109	551	558	960	474	486	149	77	72
URBAN									
All ages.....	1,867	935	932	1,642	816	826	225	119	106
Under 45 years.....	998	499	494	872	435	437	121	64	57
45 years and over.....	874	436	438	770	381	389	104	55	49
RURAL									
All ages.....	518	262	256	423	214	209	95	48	47
Under 45 years.....	283	147	136	233	121	112	50	26	24
45 years and over.....	235	115	120	190	93	97	45	22	23

¹ Column head, see par. 641b.
² Spanner head, see par. 641b.
³ Cell, see par. 641a.

Example B. Reference symbols in stub:

Area and age	All classes			White			Nonwhite		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
UNITED STATES									
All ages.....	2,385	1,197	1,188	2,065	1,030	1,035	320	167	153
Under 45 years.....	1,276	646	630	1,105	556	549	171	90	81
45 years and over.....	1,109	551	558	960	474	486	149	77	72
URBAN									
All ages.....	1,867	935	932	1,642	816	826	225	119	106
Under 45 years.....	992	499	494	872	435	437	121	64	57
45 years and over.....	874	436	438	770	381	389	104	55	49
RURAL⁴									
All ages.....	518	262	256	423	214	209	95	48	47
Under 45 years.....	283	147	136	233	121	112	50	26	24
45 years and over.....	235	115	120	190	93	97	45	22	23

¹ Stub entry, see par. 641c.
² Total line, see par. 643.
³ Cell, see par. 641a.
⁴ Subhead in stub, see par. 641d.

b. From user's viewpoint.—The user, who finds the mass of data neatly arranged in front of him, is far more likely to interest himself in a particular item of detail. He expects to find qualifications indicated in a footnote keyed closely to his particular item, if specific to that item or class. In terms of footnote reference he is likely to think of the total in mechanical terms; that is, as just another cell, column, or line.

c. Solution.—Obviously both viewpoints cannot be completely satisfied. But the designer already knows the data; the user does not. The purpose of table design is to make the material available to the user. Hence, the user's viewpoint must be given the preference.

Rule 1: Where possible, restrict placement of reference symbols against a total cell, column, or line to those cases where the footnote is intended to cover only that specific area. *Example:* A footnote explaining that the total includes figures for a subclass not shown separately.

Rule 2: Where a qualification extends beyond the usual range of the reference symbol, be sure to specify accordingly in the footnote. This applies with added force where symbols are placed against totals.

643. Effect of substituting classification term for "Total."—Frequently, in order to save space or to eliminate the need for center-heads in the stub, a classification term is substituted for the word "Total" on the total line; that is—

Instead of this expanded form

This simplified form may be used

URBAN	
Total.....	Urban.....
Under 45 years.....	Under 45 years.....
45 years and over.....	45 years and over.....

This practice is perfectly sound but questions as to clarity of reference range may arise if it becomes necessary to qualify (a) the classification term as such; (b) the entire block of data with respect to an inclusion or exclusion affecting all figures in the block (especially where the group included or excluded is not of a class listed separately in box or stub); or (c) the total line only.

For illustrative purposes assume the following footnotes as representative of these three types of qualifications, and that there are sound reasons why the first is not placed in a headnote.

¹ Outside metropolitan districts of 100,000 inhabitants or more.
² Excludes persons of unknown marital status.
³ Includes persons of unknown age, not shown separately.

a. Expanded form of stub.—Here the problem is fairly simple since there are two separate pegs on which to hang the reference symbols.

Example A-1:

	URBAN¹	(Employment status)
Total ²	1,000	40 * * * * 16
Under 45 years.....	750	32 * * * * 9
45 years and over.....	200	6 * * * * 5

¹ Outside metropolitan districts of 100,000 inhabitants or more.
Excludes persons of unknown marital status.
² Includes persons of unknown age, not shown separately.

b. Simplified form.—This may be confusing.

Example A-2:	(Employment status)				
Urban ¹	1,000	40	*	*	16
Under 45 years.....	750	32	*	*	9
45 years and over.....	200	6	*	*	5

¹ Outside metropolitan districts of 100,000 inhabitants or more. Excludes persons of unknown marital status. Includes persons of unknown age, not shown separately.

In example A-2, how is the reader to know what portions of the footnote relate to all figures in the block and what portions relate to only the total line? Rephrasing would help in this particular case, but the basic problem remains.

Note also that in this simple example the reader can tell at a glance that the two age groups do not equal the total. However, if the stub classification were many lines long, perhaps extending over to another page, this would not be practicable.

c. Solution.—In the above case, the obvious solution is to change back to the expanded form of stub and to explore the possibility of placing one or both of the first two sentences in a headnote. Each instance must be analyzed on its merits.

Rule 1: Avoid this situation by adjustment of stub construction where possible, and by making use of headnotes to relieve the burden.

Rule 2: Expand the footnote statements to make clear the range of reference in each case. (See par. 663.)

Sec. 6-F. Placement and Arrangement of Footnotes (651-656)

651. General.—Footnotes are placed at the bottom of the table-page or at the end of the table.

a. One-page table.—Place footnotes at end of table. If more than one table (or portion thereof) appears on the same page, arrange their respective footnotes under each table; do not gather them at the bottom of the page.

b. Multipage table.—Footnotes always should be placed at the bottom of the page on which the reference appears. If the footnotes are numbered on a table basis (a continuous series for the entire table) they may be gathered at the bottom of the last page but this is *not recommended* because they then do not appear where needed.

652. Cross-reference to footnotes placed at end of table.—Where footnotes are gathered at the end of the table, the statement "See footnotes at end of table" must appear at the bottom of each table-page containing one or more footnote reference symbols. This statement is unique in that it is never keyed by use of a symbol nor is it preceded by the word "Note."

Example:

Color:			
White.....	¹ 645	318	336
Nonwhite.....	162	251	161

See footnotes at end of table.

653. Arrangement of notes.—Footnotes appear in order of reference number. To facilitate reference, each is usually placed on a separate line. Where a number of short footnotes appear, they may be

arranged across the page. Bureau of the Census practice is to arrange them in order of reference number, reading from left to right on each line; they are not ordinarily arranged in columnar form with reference numbers reading down in each column.

a. Brief notes:

Example A-1. Normal:

- ¹ For the original registration States.
² For the death-registration States of 1920.
³ Values for Negroes prior to 1929 are not included.

Example A-2. Permissible:

- ¹ No data. ² Automotive starter motors only.
³ Includes parts and supplies. ⁴ Revised.

Example A-3. Wrong sequence:

- ¹ No data. ² Includes parts and supplies.
³ Automotive starter motors only. ⁴ Revised.

Example A-4. Not recommended:

- ¹ Discontinued. ² Data incomplete.
³ Gimmings. ⁴ Not available for publication.

b. Long notes involving overruns:

Example B-1. Normal:

- ¹ Based on acreage that works were capable of supplying with water.
² Based on acreage assessed by enterprises serving 5 units or more.
³ Relates to enterprises reporting no irrigation in 1939 but having works capable of supplying water in 1940.

Example B-2. Permissible:

- ¹ Based on acreage that works were capable of supplying with water. ² Based on acreage assessed by enterprises serving 5 units or more. ³ Relates to enterprises reporting no irrigation in 1939 but having works capable of supplying water in 1940.

654. Arrangement where text tables fall at bottom of page.—In text material containing tabular data, the tabular presentation may fall at the bottom of the text column or page. If both text and table include footnotes, a problem of arrangement arises since tabular presentations in text are not footnoted in the same series of reference numbers as the text footnotes.

Solution: The normal solution ¹ is illustrated here where the following table is assumed to be found at the bottom of a page (or column) of text.

TABLE A.—DISTRIBUTION OF "X" BY "Y"

Classes of "X"	Total	Classes of "Y"				
		1	2	3	4	5
A ¹	110	22	22	22	22	22
B.....	165	33	33	33	33	33

¹ Tabular notes appear first, placed in normal position under the table.

² Text notes appear below, separated from tabular notes by a cut-off rule.

655. Arrangement for recurrent footnote.—Two questions arise:

a. **Frequency of appearance.**—Even though the recurrent symbol appears more than once on a given table-page, the footnote statement must appear only once at the bottom of that page. Thus, in the following example, the footnote statement for the recurrent symbol (1) appears only once, even though it appears twice on the table-page.

Example A:

Color:			
White.....	1 629	352	1 110
Nonwhite.....	185	178	2 15
1 Incomplete.			
2			

b. **On continued pages.**—In a multipage table where the footnotes are numbered consecutively throughout the table (table basis), and the footnotes appear at the bottom of the affected table-page; the recurrent footnote statement must appear on every page carrying the recurrent symbol, not merely on the first page.

Example B (Represents p. 2 of 2 pp. of the table represented as example A):

Urban.....	1 820	318	259
Rural-nonfarm.....	241	109	1 62
Rural-farm.....	181	98	59
1 Incomplete.			
2			

656. **Placement of footnotes bearing arbitrary symbols such as an asterisk (*).**—Where both arbitrary symbols and numbered references appear, the footnotes for the arbitrary symbols are listed first.

Example:

White.....	1 624	(*)	2 369
Nonwhite.....	3 412	1 152	168
* Not reported.			
1 Incomplete.			
2			

Sec. 6-G. Wording of the Footnote (661-665)

661. **Need for brevity.**—Since footnotes are hard to read, they should be as brief as possible, but clarity must never be sacrificed for brevity. The following factors should be kept in mind:

a. The smallness of type and great length of line make footnotes hard to read; and—

b. Footnotes tend to be parenthetical in nature with the subject-noun frequently omitted. This makes them hard to comprehend.

662. **Style.**—Footnotes are written in telegraphic style. Even though not a complete sentence, the footnote always ends in a period. Articles and other parts of speech not essential to understanding are commonly omitted. Standard conventionalized phrasing should be used wherever possible. Use the same abbreviations and phrasings in the footnote as in the remainder of the table.

663. **Frame of reference.**—Footnotes can be shortened, and phrasing simplified, by taking into account the basic frame of reference

established by the "keying" of the note to the material qualified. The footnote is an integral part of the statistics, or class description, qualified and should be handled accordingly. Superfluous identifying phrases and words should be omitted.

a. **Basic reference is to material identified by symbol.**—A footnote statement, by definition, refers solely to the information to which it is "keyed" by the reference symbol. (See pars. 632-634.)

(1) **Intended coverage same as normal reference range.**—There is no need to specify "These statistics" or "This item" or to describe or name the data or entries qualified. Furthermore, note that if the same type of qualification (such as "Incomplete") is to appear for quite different groups, unnecessarily exact specification of the category covered would make it impossible to use a recurrent symbol and footnote.

Example A:

	Female.....	White
(Terse) 1	Includes.....	1 42
(Verbose) 1	Figures for white female include....	

Example B:

	Operatives 1.....
(Terse) 1	Includes.....
(Verbose) 1	These statistics include.....
(Terse) 1	Comprises.....
(Verbose) 1	The category "Operatives" comprises.....

(2) **Intended coverage LESS than normal reference range.**—Demands careful specification of categories or items qualified when intended reference range is less than normal.

Example C (Assume qualification intended only for 1930 figures):

	1940	1930	1940	1930
Operatives 1.....	75	15	45	30
(Right) 1	Figures for 1930 exclude.....			
(Wrong) 1	Exclude.....			

(3) **Intended coverage MORE than normal reference range.**—This practice is NOT RECOMMENDED. When it occurs, however, it is imperative that the footnote provide clear warning.

b. **Order of wording.**—As in the instance of the headnote, a footnote should start with what the reader can see, or is likely to assume, and move to that which is not apparent or not known to him. (See par. 521b.)

Example:

	Cotton manufactures 1.....
	Silk and rayon manufactures 1.....
Accurate statement:	1 Because of a tabulating error discovered too late for correction, the figures for "Cotton manufactures" include about 2,200 employed females who should have been tabulated as in "Silk and rayon manufactures."
But this is better:	1 Figures for "Cotton manufactures" include about 2,200 employed females who should have been tabulated as in "Silk and rayon manufactures"; tabulation error discovered too late for correction.

664. **Numbers and fractions.**—In footnotes, *numbers* are expressed in figures, even at the beginning of a note or sentence. *Fractions* standing alone are spelled out at the beginning of footnotes.

665. **Introduction required to tabular footnotes.**—If the footnote consists entirely or partly of a table or leader work, the footnote table is indented on the left. It must be preceded by introductory matter carrying the reference symbol. If no other introductory matter seems required, insert an introductory line, such as "1 See the following table."

Chapter 7

ALLOCATION TO STUB AND BOXHEAD (701-713)

Sec. 7-A. General (701-703)

701. General relationship.—The relationship between stub and box may be stated in general terms as follows:

a. Identity of basic functions.—The purpose of both the box and the stub is to describe the specific data and to make clear the relationship among the data.

b. Basis of allocation of items.—This depends largely upon several factors which vary in influence from table to table. The final allocation usually represents a compromise. (The first two factors listed are discussed briefly here. The second two are discussed in detail in sec. 7-B.)

- (1) Table purpose or presentation intent.
- (2) Relationship between tables in a series.
- (3) Comparative mechanical advantages and limitations on ability of each to indicate intra-table relationships.
- (4) Comparative space requirements.

702. Influence of table purpose.—The primary influence of table purpose is manifested by the need for juxtaposition of certain data. Thus, if a fundamental condition of presentation is to make possible a comparison of frequencies of classes A and B in terms of variable C, it is apparent that both A and B should appear on the same axis, and that C should appear on the other axis.

Theoretically, it may be argued that it is easier to compare data by having them appear directly under one another in successive lines, rather than side-by-side in adjacent columns. Practically, the question tends to be academic. In only a few instances is it possible to place all of the important comparisons on successive lines or in successive columns. The more important practical consideration is "In which axis will it be most feasible to present the two (or more) classifications which *must* appear on the same axis?"

Similarly, when designing tables of the Bureau of the Census, the question of relative prominence provided by the stub and boxhead tends to be academic. Again, the problem of making maximum use of *all* available space takes precedence.

703. Relationship between tables in a series.—Frequently, series of tables are shown where all classifications except one remain constant.

Here it is a decided convenience to the user if a constant pattern in content of box and stub is maintained from table to table.

The question as to where the variable (the classification that is new to each table) should be placed is again largely academic. No matter where it is, if it is properly handled, the user will spot the point of difference readily in a series where the table pattern is otherwise held constant. Shifting of the common classifications from one axis to the other, table to table, will do more to obscure the location of the classification that is new to each table than will its constant appearance in either the box or the stub, whichever may be argued as giving it greater prominence.

Sec. 7-B. Allocation Principles and Problems (711-713)

711. Summary of allocation principles.—Certain specific considerations should enter into the question of allocating classifications to boxhead or stub. The summary listings given here should not be thought of as independent of one another. Each must be qualified in terms of the particular situation. However, all other things being equal, the following statements are generally true.

a. Boxhead presentation is more efficient for—

- (1) Classifications confined to comparatively few items.
- (2) Classifications with brief captions.
- (3) Constant subclassifications comprised of one, two, or three items, such as total, male, and female, repeated for various classes of data.
- (4) Classifications involving possible misunderstanding as to unit of presentation, since a spanner can be used to make the unit clear.
- (5) Classifications which, to be understood, must be read carefully in terms of superior heads which can be presented in spanners immediately above.

b. Stub presentation is more efficient for—

- (1) Classifications involving numerous lists of items.
- (2) Classifications requiring long and detailed captions.
- (3) Constant subclassifications under different heads, involving a large number of entries on each occasion.
- (4) Multiple subclassifications so numerous as to pass quickly beyond page limits for columns.
- (5) Classifications requiring more than three levels of boxhead to present.

c. Standard boxes and stubs advantageous.—In a series of tables, the advantages of standard boxes, stubs, or both, outweigh many minor sacrifices in presentation practice. (See par. 703.)

712. Comparative mechanical advantages in emphasizing relationships.—The boxhead, as compared with the stub, has one great advantage; that is, its greater ability to emphasize relationships among data, particularly those in adjoining columns. The stub, in contrast, is better equipped to handle multiple levels of classification.

a. **The boxhead.**—In the boxhead, heads of superior level are shown in the form of spanner heads. These usually are located directly above the affected column heads. Even where several levels of spanners are employed, the individual column heads are very close to the uppermost spanner affecting them. This, in itself, is a signal advantage in terms of clarity of relationship.

Furthermore, the uppermost spanners divide the boxhead into a relatively few, and easily noted, panels. The major classifications thus shown are readily noted by the user.

However, these "advantages" rapidly disappear as the boxhead becomes more complex either in number of levels or in length of captions.

b. **The stub.**—The stub excels where the boxhead is weakest; that is, in showing multiple levels of classification. The line caption, itself, constitutes one level. Indent patterns and the use of the total-line caption for classification supply several more levels. Colon lines, centered subheads, and center heads add to the possibilities. A situation too complicated for boxhead presentation can be handled easily in the stub. In addition, captions which would take up several lines in the box may occupy only one line in the stub. Overruns in the stub are easier to read than in the box.

c. **Conclusion.**—Everything else being equal, place involved classifications in the boxhead if they can be presented in not more than three levels of box. This applies particularly to instances where proper understanding of subclassifications depends upon keeping the major and minor heads well in mind at every point, and the caption length and box arrangement are such as to permit ease of reading.

Place in the stub, however, classifications involving many levels and sublevels. The boxhead becomes forbidding in aspect when more than three levels are shown.

713. Comparative space requirements.—This question divides itself into two parts.

a. **Fewer columns than lines per page, irrespective of caption length.**—Obviously, fewer columns than lines are possible on an upright page since a column occupies more space than a line.

(1) **The boxhead.**—Practically, the box can rarely carry more than 15 to 17 separate columns on a large size¹ (such as census-size) page of frequency data, or 20 to 25 columns of percent data. To accomplish this, the column captions must be such as to appear to advantage in extremely narrow boxes. The number of columns on a smaller¹ page (such as document-size) will be correspondingly less.

(2) **The stub.**—In contrast, the stub will carry from 75 to 90 line captions on a large-size page, with the total differing in terms of the number of centered heads, space and analytical breaks, overruns, and space required by title, headnote, and boxhead. The document-size page will carry still fewer line captions.

(3) **Conclusion.**—Everything else being equal, the classifications with the fewest number of intervals should be placed in the box. Classifications involving numerous listings should appear in the stub. Long stubs are preferable to long boxes. Continued stubs are easier to follow and to refer to than continued boxes.

¹ See par. 211, for comparative page sizes.

b. **Box demands briefer captions.**—By its nature, the box cannot handle long detailed individual captions. The stub, with its greater flexibility as to line length, is better adapted for this purpose.

(1) **The boxhead.**—Width of individual column heads should be held, where possible, to two spaces more than required by the maximum cell frequency which will appear. This conserves horizontal space and insures more columns per page.

In addition, where possible, no lower box should be run more than three or four lines deep, at most. Otherwise, the caption tends to be extremely hard to read.

(2) **The stub.**—Although brevity is essential in stub captions, the same restrictions do not apply as for boxhead captions. True, overrun lines are not desirable, particularly lines overrunning to make more than two or three lines. However, in the stub the restrictions may be set aside freely as needed without too great an impairment of readability.

(3) **Conclusion.**—Everything else being equal, assign to the box those classifications with briefer captions. Assign to the stub those requiring long captions.

be used which will operate against this requirement. A part should be used without hesitation if clarity will thereby be increased.

Sec. 8-B. Definitions of Component Parts (811-821)

811. Stubhead or box.—The column head or caption of the stub which describes the stub listing as a whole in terms of the classification presented. (See sec. 9-A.)

Examples:
Division and State
Census year
Type of enterprise
Tenure and race of operator

812. Center head and subhead.—A classifying, descriptive, or qualifying statement applying to all subheads and line captions following it until the next center head or subhead is reached which has a coordinate or superior classification. (See sec. 9-B.)

<i>Examples:</i>	TEXTILES	AGE
Cotton.....		Under 45 years.....
Rayon.....		45 years and over.....
	COUNTIES	PERCENT
Appling.....		January.....
Baker.....		February.....

813. Colon and dash (read-in) lines.—Stub entries (other than centered heads and subheads) on lines which contain no data or other entries within the field of the table. They are subject to the same rules of indent as are the line captions on data lines. Actually, the colon line is a heading; the dash line is a fragment, not a line in itself. They are discussed together because the one is so frequently confused with the other in table design. (See sec. 9-C.)

a. Colon line.—A heading within the detail of the stub. Ending in a colon (:), it usually (1) indicates the nature of the classification presented in its subentries (lines indented below it); (2) indicates the group covered when the terminology of the subentries relates to a subordinate classification only; or (3) maintains the identity of a subgroup for which data are presented for the component parts but not for the group total. It does not "read in," as such. (See pars. 922-925.)

Example:

Un glazed structural tile:	
Nonload bearing.....	2,624
Load-bearing, back-up tile.....	1,827

b. Dash (read-in) line.—Comprises an opening word or phrase which, common to several consecutive lines, has been removed and placed on a line by itself and terminated with a dash (—). The dash (—) indicates that it is an integral part of each of its subentries and is to "read in" to each of them; that is, it is a fragment, not a complete caption in itself. (See pars. 926-933.)

Example:

Produced at refineries from—	
Domestic petroleum.....	645
Foreign petroleum.....	129

Chapter 8

THE STUB: GENERAL AND DEFINITIONS (801-835)

Sec. 8-A. General (801-803)

801. Organization of discussion of stub.—In this manual the discussion of the stub is distributed among four chapters. The present chapter defines the stub as a whole and each of its component parts. In general, each definition is accompanied by a highly condensed description of the material involved.

Chapters 9 through 11 discuss the various component parts in considerable detail. Specifically, chapter 9 describes such classifying and descriptive devices as the center heads, line captions, and unit-indicators. Chapter 10 is devoted to construction aids to clarity such as indentation, leaders, and space breaks. Chapter 11 discusses the standardized arrangement of items for various subjects; arrangements which, in some cases, are based on scientific evaluation and, in other cases, rest upon custom.

Two other chapters have a direct bearing on stub treatment; that is, chapters 7 and 13. Chapter 7 discusses the relationship between the stub and boxhead. Chapter 13 describes the use of horizontal and vertical rules. In respect to horizontal rules, it must be remembered that, although they do not normally extend through the stub, their presence or absence frequently is crucial to clarification of stub listings.

802. Definition.—The stub is that portion of the table, usually comprising the first column on the left, in which is located the listing of line or row captions or descriptions, together with needed classifying and qualifying center heads and subheads. For descriptive purposes, the column head (or caption) of the stub is considered a part of the stub of the table, although in terms of location and physical requirements it is a part of the boxhead.

803. Function of component parts.—In terms of construction the stub is made up of a number of easily identifiable component parts. Those most frequently used are listed and defined briefly immediately below. In general, the fewer the number of parts used, the greater the simplicity of the stub. Note, however, that these parts are devices designed to facilitate reader-understanding. No part should

814. Line caption: Data line.—Basic unit of stub. A descriptive title of the data appearing on the given line. A *data line* is any line containing any cell entry whatsoever, even though the sole cell entry be leaders, a footnote reference symbol, or any symbol which has a standard meaning or is explained in the headnote. The data-line caption is always followed by leaders in the stub. (See sec. 9-D.)

Examples:

White.....	467	Urban.....	547
Negro.....	31	Rural-nonfarm.....	362
Other races.....		Rural-farm.....	(?)

815. Line caption: Total or subtotal lines.—A descriptive title of a data line comprised of grand totals, group totals, or subtotals; a special case of the line entry for the data line. (See sec. 9-E.) It may specify the unit of presentation where necessary. Where it is obvious that the line is a total line, the word "Total" may be omitted from the line caption and the name of the area or major group inserted in its place, as in the following example. (Also, see par. 956b.) This tends to reduce the number of center heads or subheads in the stub. (See par. 956f.)

Examples:

THE STATE			
Total.....	1,000	The State.....	1,000 (total lines)
Urban.....	750	Urban.....	750 (other data lines)
Rural.....	250	Rural.....	250 (other data lines)

816. Unit-indicator.—A device for indicating the presentation unit for a specific line. The unit-indicator is used when the unit varies from line to line and is not made clear by the normal wording of the line caption. The unit-indicator is placed on the right-hand side of the stub. On occasion, it may be used to specify the effective time-period or other varying factor. (See sec. 9-F.)

Examples:

Letterpress		Offset	
.....1929..	.....1,000 gals..	.....1,000 gals..	
.....1939..	.....1,000 lbs..	.....1,000 lbs..	
.....1929..	.....1,000 oz..	.....1,000 oz..	
.....1939..	.....\$1,000..	.....\$1,000..	

NOTE.—In letterpress, unit-indicators are lined up at the right; in offset, it is permissible to line them up at the left. (See par. 963a.)

817. Stub leaders.—In letterpress, a row of small and closely set "dashes," or in typewriter offset, a row of typewriter periods, extending from the last letter of a stub entry to the column rule at the right of the stub, lining up at the bottom of the given line. The purpose of leaders is to maintain horizontal legibility by helping the eye maintain the same level between the end of the stub entry and the point where the figures begin. (See sec. 10-B.)

Examples:

Letterpress.....	654	329	152	87	39
Typewriter offset.....	654	329	152	87	39

818. Space break.—An open space or blank "line" inserted at periodic intervals to break up solid blocks of entry lines. It improves horizontal legibility by grouping the entries. The space break extends the full width of the table and thereby provides "guide" lines across the page. (See sec. 10-C.)

Examples:

A. 10-line break		B. 5-line break	
Alabama.....	1940.....	Alabama.....	1940.....
Arizona.....	1930.....	Arizona.....	1930.....
Arkansas.....	1920.....	Arkansas.....	1920.....
California.....	1910.....	California.....	1910.....
Colorado.....	1900.....	Colorado.....	1900.....
Connecticut.....		Connecticut.....	
Delaware.....	1890.....	Delaware.....	1890.....
District of Columbia.....	1880.....	District of Columbia.....	1880.....
Florida.....	1870.....	Florida.....	1870.....
Georgia.....	1860.....	Georgia.....	1860.....
	1850.....		1850.....
Idaho.....		Idaho.....	
Illinois.....	1840.....	Illinois.....	1840.....
Indiana.....	1830.....	Indiana.....	1830.....
Iowa.....	1820.....	Iowa.....	1820.....

819. Continued line.—A line (or lines) appearing at the top of continued columns of the stub which indicates the nature of the continued classification (or classifications) carried over from the preceding column. Each line carried over is given the same indent as on the page where it originally appeared.

Examples:

GROUP O.—ANIMALS, ETC., INEDIBLE—Continued	
Patent upper leather.....	.....
Patent side upper leather.....	.....
Goat and kid.....	.....
Other.....	* * * * *
Fruits and vegetables—Continued.	
Salad dressings—Continued.	
Fruits other, grapes:	
Liquors, distilled.....	.....
Wines.....	* * * * *

820. Tracer numbers.—A guide number placed at the beginning, and again at the end, of each data line. In Bureau of the Census practice they appear only on parallel tables where the stub is not repeated on the right-hand (facing) page. Tracer numbers are placed at the left of the stub on the left-hand page and to the right of the last column on the right-hand page. They are set off from the rest of the table by vertical rules. (See example at end of par. 821, and fig. 9, example 9-A, pp. 22-23.)

Tracer numbers aid horizontal legibility by identifying that portion of the line which appears on the right-hand page (which has no stub) with the portion of the same line which, accompanied by the line caption, appears on the left-hand page. The presence of tracer numbers reduces the danger of confusion caused by possible bad line-up of the two pages when printed. The series of tracer numbers

is continuous down the page but starts again with number 1 at the top of each pair of pages. This device is a function of mechanics and not of content. (Compare with par. 821, "Group or line numbers," below.)

821. Group or line numbers.—A series of numbers or symbols, usually presented at the left of, but sometimes within, the stub, which identify categories or subcategories in terms of a particular classification scheme or code. A function of content and not of mechanics, they are often confused with tracer numbers, described above in par. 820.

In a given table the group or line numbers may or may not start with 1 and they may not necessarily run consecutively in a continuous series. Each caption or heading assigned such a number always carries the same number whether the listing is complete or incomplete, expanded or condensed; or whether it appears on an office worksheet or a machine sheet or as a component of a formal printed presentation. Hence, in the printed report there is no mechanical repetition of the series with each new page. The same numbers may repeat within a given page if the categories which they identify are presented in repeated blocks, or the numbers may run in a series extending over many pages if there is no repetition of a given category.

Group or line numbers are not confined to parallel tables. When they appear in parallel tables, they may or may not appear on the right-hand page; if they do appear on the right-hand page, they may be inserted either on the left-hand or the right-hand side of that page. (In contrast, note that *tracer numbers* always appear on the right-hand side of the right-hand page of parallel tables.)

The example given below, illustrating both tracer and group numbers, comprises the first six lines of the stub of a parallel table. (See Sixteenth Census, *Manufactures*, 1939, vol. I, p. 22, table 5, for complete table.)

Group No.	Industry group and industry
1	All industries, total.....
	GROUP
2	1 Food and kindred products.....
3	2 Tobacco manufactures.....
4	3 Textile-mill products and other fiber manufactures.....
5	4 Apparel and other finished products made from fabrics and similar materials.....
6	5 Lumber and timber basic products.....

Sec. 8-C. Standard Stub Arrangements (831-835)

831. Summary.—The arrangement of materials in the stub depends upon (a) the nature of the classification and the purpose of presentation; and (b) the limitations of space, typography, and typing. (See secs. 11-A and 11-B.)

Stub preparation of tables of the Bureau of the Census must first take into account the high degree of standardization of presentation developed for many subjects over a long period of years. However, in a report dealing with a particular subject the normal rule is to place first the data comprising the subject of the report, even though in a standard listing that factor may be subordinate.

The following general rules on stub arrangement therefore must be qualified in terms of (a) the standardized practice, if any, for the subject covered, or of the Subject Division¹ involved (within the Bureau of the Census); and (b) the specialized purpose of the given presentation.

832. Areas.—The following statements are general only. For detailed discussion, see section 11-A.

a. **Regions and divisions.**—Usually presented geographically.

b. **States.**—Geographically under region and division headings if the data display marked regional differences. Alphabetically if the geographic factor is not significant in analysis.

c. **Smaller areas.**—Usually alphabetically within States. However, at times, places may be arranged in groups classified according to size, listed alphabetically within each separate size-group. *Example:* An alphabetical listing of cities under the heading: "Cities of 25,000 Inhabitants or More." Another common practice is to list cities, towns, etc., alphabetically within counties; with the counties, in turn, alphabetically within States.

833. Time series.—The most recent date may be shown either first or last, depending upon the presentation purpose and the nature of the material. (See sec. 11-B. See also pars. 365-366.)

a. **Decennial or quinquennial census reports.**—Show the most recent date first with remainder of listing receding in time (down the stub or across to the right).

b. **Future time.**—Start with the earliest time and carry through the present into the future.

c. **Historical development or survey tables.**—Normally, start with the earliest date and lead to the present. That is, place the earliest date at the top of the list or in the first column of the table.

d. **Current continuing surveys.**—Normally, start with the earliest date and lead to the present.

¹ That is, the Agriculture Division, Business Division, Foreign Trade Division, etc., each of which is a Division of the Bureau of the Census in charge of censuses, statistics, etc., relating to its assigned subject field.

834. Quantitative classifications.—May be arranged according to physical properties, such as size, value, weight, or number, in increasing or decreasing order according to presentation purpose and the nature of the data. In general, the practice of the Bureau of the Census tends toward arrangement in increasing order of size, value, etc.

835. Qualitative classifications.—The many qualitative classifications employed by the Bureau of the Census are usually subject to standard methods of listing which have been worked out for each field or subfield. Such standard listings are usually thought of in terms of scores, or even hundreds, of lines. However, even simple two-line classifications are ordinarily subject to customary order in listing. The user is accustomed to this order, and it is reflected in worksheets and machine sheets of all kinds. No departure should be made from it without ample and demonstrable cause.

It is impossible to list these materials here. However, two examples may be given to illustrate the point that even simple listings may have their standard arrangement. Thus, age data are almost invariably arranged from the youngest to the oldest; listings for race are normally arranged, "Native white, Foreign-born white, Negro," and "Other races," in that order.

Many detailed stubs have been developed for classifications in varying detail which should be followed rigorously as to order of listing and terminology, spelling, punctuation, abbreviations, etc. A few of the fields thus covered are "Kind of business," "Occupation," "Industry," "Commodities," and "Crops." In many of these fields various standard stubs are existent to serve various requirements of analytical content and mechanical spacing. Standard listings may run from two lines to many pages.

Chapter 9

THE STUB: HEADS AND CAPTIONS (901-966)

Sec. 9-A. The Stubhead or Box (901-909)

901. Definition and purpose.—The column head or caption of the stub which describes the stub listing as a whole in terms of the classification represented by the stub entries. Its function is threefold, as follows:

- a. To describe the stub listing in terms of classification and subject.
- b. To serve as a reference guide. Because of this function, it should be kept as brief as possible to permit the reader to note, at a glance,—
 - (1) The principal content of the stub.
 - (2) The allocation of entries to the stub as compared with the boxhead.
- c. On occasion, to make clear by amplification a classification whose description has been overcondensed in the title and stub.

902. Coverage description.—In general, only major classifications should be listed in the stubhead. Too great detail in indication of cross-classification should be avoided.

a. **Indicating major classifications.**—By "major classifications" is meant those of fundamental importance in terms of table-purpose, irrespective of heading or indent levels. Thus, in a table designed primarily to present "age in single years" by race, sex, and urban-rural residence, the age classification (if presented in the stub) would be most important in terms of presentation objective, even though the age entries may be listed under various subheads.

b. **Indicating cross-classification.**—In general, indication of cross-classification should be avoided in the stub heading, except where it can be stated simply or where it is peculiar to the specific problem involved. Thus, if a stub shows listings for age, race, and sex, with each crossed with the other two, it usually is sufficient to label it in the stubhead as "Age, race, and sex," rather than to attempt to spell it out as "Age by race and sex," or "Age, by race and by sex."

A useful comparison may be made between treatment for the stubhead and the table title. The table title not only appears directly above the materials which it describes; it may also be listed elsewhere, as in the table of contents of the report. This places a greater premium upon exact specification in the title than in the stubhead since the stubhead never appears except immediately above the listings it describes. In spite of this, it is recommended that even the table title should not include too highly involved descriptions of cross-classification. (See par. 306.) This applies to the stubhead with added force.

903. Use of "Subject," "Class," or "Item."—Where the stub listings are comparatively unrelated and cannot be generalized in a few words, it may be necessary (but rarely desirable) to confine the stubhead description to such a term as "Subject," "Class," "Group," or "Item," standing alone. Although in practice these terms frequently are used interchangeably, they may be distinguished roughly as follows:

a. "Subject."—"Subject" is suggested where the stub presents listings in several broad fields with a comparatively slight amount of detail presented for each.

b. "Class."—"Class" is suggested where the stub listings relate to a single common field and that field is being divided into a variety of subgroupings with minimum detail shown for each. "Group," generally speaking, may be used interchangeably with "Class."

c. "Item."—"Item" is suggested where the emphasis is upon detail in classification or where the stub is composed of a long list, or lists, of coordinate captions, particularly of quantitative material.

904. Order of listing: General.—The necessity of a consistent pattern is the most important consideration in determining the order in which classification terms should be listed in the stubhead, particularly for all tables within any given report.

a. **Dangers of inconsistency.**—If identical stubs appear in several tables (table differences being confined to the boxhead), the user may be confused if the several stubs are described differently, such as "Age, race, and sex," "Sex, race, and age," or "Age by race and sex."

Frequently, stubs which look alike at first glance are radically different in content. In such cases, variation in stubhead description must be relied upon to warn the reader. Improper and "meaningless" variations of equal, or greater, magnitude appearing within the same set of tables will effectively destroy the likelihood that the reader will note the shifts that have a real significance.

b. **Methods of insuring consistency.**—The need for a standard rule is greatest where the details of table design for a large number of tables must be worked on by a number of people over a period of time. Three methods are outlined below in par. 905. One of these should be selected at the outset and the decision made known to all.

905. Order of listing: Specific.—Of the following three systems, either of the first two is normally acceptable. The third is recommended *particularly* for tables comprising a series. However, in Bureau of Census practice the term "Area," or the area designation "County," "City," "State," etc., is normally listed first in the stub heading if the stub includes an area classification.

Method A. Descending order of stub levels (satisfactory).—The most commonly used method. List first (after "Area") that classification which describes the main centered headings. Then follow with the remaining classifications in

descending order, such as secondary center heads, classifications described on total lines, and classifications described in individual line captions.

Example A-1:

County, color, marital status, and age	
ALLEN COUNTY	
White	
Single.....	
Under 45 years.....	
45 years and over.....	

Example A-2:

County, color, age, and marital status	
WHITE	
Allen County	
Under 45 years.....	
Single.....	
Married.....	

Method B. Ascending order of stub levels (satisfactory).—Same principle as for descending order except that the listing is reversed. That is, of the items chosen for listing in the stubhead, list first (after "Area") the least significant in terms of indent or level of head. The others follow accordingly, with the classification shown in the main head listed last.

Example B-1:

County, age, marital status, and color	
ALLEN COUNTY	
White	
Single.....	
Under 45 years.....	
45 years and over.....	

Example B-2:

County, marital status, age, and color	
WHITE	
Allen County	
Under 45 years.....	
Single.....	
Married.....	

Method C. Emphasizing table or stub purpose (recommended for series tables).—Place first (after "Area") the most important classification in terms of table purpose if that classification appears in the stub. Otherwise, place first (after "Area") that stub classification which most strongly differentiates the stub listing in the given table from the stub listings in other tables in the same series. In each case, list the remaining classifications as in method A, or B, above.

Example: Assume a series of three tables, the stub of each showing citizens and aliens classified by sex, with the following purposes of presentation:

- Table 1: An age distribution;
- Table 2: A color distribution; and
- Table 3: A marital status distribution.

Following are hypothetical stubs of such a set of tables captioned according to method C. Below each, for comparative purposes are shown captions according to methods A and B. Note that methods A and B stress features common to all three stubs. Method C stresses the difference between them; thereby applying to stub "titles" the same principle of "difference" applied to table titles in paragraphs 311 and 332.

Example C. Stub captions according to method C:

Table 1	Table 2	Table 3
Age, citizenship, and sex	Color, citizenship, and sex	Marital status, citizenship, and sex
CITIZENS	CITIZENS	CITIZENS
All ages.....	Total.....	Total.....
Male.....	Male.....	Male.....
Female.....	Female.....	Female.....
Under 45 years.....	White.....	Single.....
Male.....	Male.....	Male.....
Female.....	Female.....	Female.....
45 and over.....	Nonwhite.....	Married.....
Male.....	Male.....	Male.....
Female.....	Female.....	Female.....
ALIENS	ALIENS	ALIENS
All ages.....	Total.....	Total.....
Male.....	Male.....	Male.....
* * * * *	* * * * *	* * * * *

Stub captions of above according to methods A and B:

Table 1	Table 2	Table 3
Method A: Citizenship, age, and sex	Citizenship, color, and sex	Citizenship, marital status, and sex
Method B: Sex, age, and citizenship	Sex, color, and citizenship	Sex, marital status, and citizenship

906. Disadvantages of mechanical listing.—Method C (par. 905, above) overcomes the principal objections to listing mechanically on the basis of stub level, whether descending (method A) or ascending (method B). In either case (methods A and B), the mechanical listing may result, particularly in a series of standard tables, in stressing (by placing first) that classification which is common to all tables in the series.¹ In consequence, the differentiating characteristic may be buried in the middle or at the end of the stub description.

¹ The Bureau of Census practice of giving "Area" precedence in the stub box (see par. 905, 3rd sentence) constitutes an exception to this rule. This is because the reader's first problem, when using Census Bureau reports, is to locate the area in which he is interested. This problem does not arise when a series of tables is presented for a single area, or where the area classification is shown elsewhere than in the stub.

Example: In a report containing 25 tables devoted to a detailed age distribution of various groups of the population, a stubhead listing based on method B might well result in "Age" appearing first in the stub description of all tables. Such a stress is of dubious value to the reader who knows from the report title that age data are the primary subject of the report. Actually, the differentiating feature between table stubs might be that described in a secondary level of center head in the stub. In this case, use of either methods A or B will tend to bury it. By use of method C, the differentiating factor can be given prominence irrespective of its placement level within the stub proper.

907. Amplifying title description.—On occasion, a classification description may be highly condensed in the title because of space considerations or because inclusion of the full description would make the table title difficult to read. In such cases, assuming that the classification involved is presented in the stub, the stub heading might well carry the description in full.

Example: Assume the existence of three different standard stubs comprising industry descriptions, the difference between the stubs being confined to the number of classifications shown; that is, to the difference in stub length or number of items. In such cases, normal practice requires that a distinctive description be assigned to each, such as "Major industry group," "Intermediate industry group," and "Detailed industry group."

a. All listings represented.—If, in a series of tables, all three types of listings are represented, then the table titles and the stub boxes should carry the full description; that is, "Major industry group," "Intermediate industry group," etc.

b. One listing represented.—If, in a given series, only one table appears with an industry classification, or if the same industry classification is used in all tables, it is permissible, and frequently wise, merely to carry *INDUSTRY* in the table title, and to rely upon the stubhead to carry the full formal description, such as "Major industry group."

908. Stubhead captions to be avoided.—The stubhead is sometimes used as a depository for descriptive or other statements which belong elsewhere in the table or for which no other "convenient" location can be found. Use of the stub box as a miscellaneous file interferes with its true function. At times, this practice may lead to confusion. Common practices to be avoided are as follows:

a. Improper indication of presentation unit.—Unit indication in the stub box should be restricted to that which refers specifically to the stub classification. Even then it might better appear—

- (1) As a part of the headnote if the unit indicated is common to the entire stub;
- (2) As a parenthetical expression under a descriptive center head if it applies only to a given stub block; or
- (3) At the right-hand side of the stub (or in a unit-indicator column) if it varies from line to line.

However, if the unit indication applies to the entire stub, it is *acceptable* to place it in the stubhead. For detailed discussion of handling unit-indicators, see paragraphs 961 to 966.

Example A. Reference is to stub classification. Acceptable, but better to insert "years" after line captions where space permits.

Sex and age (years)	Total
Male, 14 and over.....	
14 to 19.....	
20 to 24.....	
25 to 44.....	

Example B. Reference is to figures appearing in table field. Not acceptable.

Amount (number of sales)	Total sales
Total amount.....	
Under \$50,000.....	
\$50,000 to \$100,000.....	
\$100,000 to \$150,000.....	

b. Headnote-type of statement.—Avoid use of the stub box for insertion of qualifying statements properly placed in the headnote. Ordinarily such statements are permissible in the stub heading in only those cases where the headnote is already so extensive that the qualifications, although of imperative importance, would tend to be buried. However, if a qualification of this type is at all appropriate for placement in the stubhead, it is usually such that it would better be placed in a footnote, if headnoting is impracticable.

In the example which follows, the original tables carried no headnotes in many cases and an exceedingly brief headnote in others. All tables carried the stub-box statement "For definitions and explanations, see text" even though (1) in many of the tables the statement applied also to the boxhead classifications, (2) footnoting of some types of explanations was extensive, and (3) there was no place other than the text where the user could be expected to look for such definitions and notes. Also, the composite map numbers, referred to in the example, appeared *within the boxhead*; not in the stub.

Example C-1. Original presentation: Headnote reading "For the 17 Western States and Arkansas and Louisiana"; stubhead as follows:

Item
[For definitions and explanations, see text. Major basin totals from 1930 and 1920 Censuses include figures for unidentified tributary basins. A composite map index-number is shown in parentheses for each drainage basin]

Example C-2. Revised presentation: Confine stubhead to "Item," omit reference to text, and shift remainder to headnote, revised as follows:

(For 17 Western States, Arkansas, and Louisiana. Major basin totals from 1930 and 1920 Censuses include figures for unidentified tributary basins. Figures in parentheses in boxhead, as (IV) or (56), constitute composite map index-numbers assigned to specified drainage basin)

c. Footnote-type of statement.—Avoid use of the stub box for insertion of statements which could as well be placed in footnotes. Thus, in the above example, if headnote space had not been available, the reference to *major basin totals* might well have been placed in a footnote with the reference number attached to the stubhead, as "Item 1." The footnote would read "1 Major basin totals"

909. Cross-references.—Cross-references in the stubhead should be held to a minimum, particularly generalized cross-references to text. Obviously, it would be easy to include in every boxhead such a statement as "(For definitions, see text)." Furthermore, since such a cross-reference should apply to the stub as a whole, it might more reasonably appear as a footnote to the stubhead; or, better still, it might appear as a headnote.

However, on rare occasions a cross-reference to another table may be inserted parenthetically—

a. To remind the reader of an important relationship between this stub and a classification presented elsewhere in the same report; or

b. To indicate the location of some figure, listing, or fact which is important to the understanding of the classification shown.

Example A:

Labor force status
(includes institutional population omitted in table 6)

Example B:

Owner-occupied units by mortgage status
(see table 2 for total dwelling units)

Sec. 9-B. Center Heads and Subheads (911-920)

911. Definition.—Center heads or subheads, as their names imply, are descriptive or classifying headings centered horizontally in the stub.

912. Purpose and function.—The purpose and function of the center head or subhead is threefold:

- To define, describe, or qualify stub entries following it.
- To separate the table into readily identifiable blocks in terms of major aspects of the data.
- To state or imply relationships among the various sections of the table, or within that section to which the given head or subhead applies.

913. Comparison with colon and dash lines.—The center head and subhead and the colon line perform identical functions. However, the colon line is subject to normal rules of data-line indent;

Example: In table 1, age data are classified by urban-rural residence and then by sex; in table 2, age data for males and females are classified by color. The primary heads are in bold caps, as "URBAN" in table 1; "MALE" in table 2. The two subordinate heads are also treated alike but are in lower case (small letters), as "Male" in table 1; "White" in table 2. (See example B.)

Example B. The capitalization shown here is correct in each case; also, the two presentations are consistent with each other:

Table 1	Table 2
URBAN	MALE
Male	White
All ages.....	All ages.....
Under 45 years.....	Under 45 years.....
45 years and over.....	45 years and over.....

The fact that the term "male" is a center head in both tables does not mean it must appear with the same capitalization both times. On the contrary, the presentation-form depends entirely on the given construction-level at each appearance.

b. Restrictions on number of levels.—Not more than three levels of center heads should be used in either letterpress or offset work. If the number of levels to be presented numbers more than three, the table plan should be re-examined to determine the possibility of splitting the table so as to make two or three tables.

(1) *Mechanical limits.*—In letterpress, the number of type sizes and faces is virtually unlimited in theory but is definitely limited in practice. In typewriter-offset, the limit exists both in theory and in practice.

(2) *Reason for practicable limits even in letterpress.*—No reader can be expected to note, or to remember, subtle distinctions in type size, boldness, and face. Thus, few readers can distinguish between short lines of 6-point and 8-point type of identical face, boldness, and capitalization unless the lines involved are placed fairly closely together. The same is true for isolated words of typewriter pica and typewriter elite when separated by a mass of text or figures.

To be of value, level-distinction in headings must be such that the reader cannot only grasp it quickly when looking at a given page, but also can carry that impression from one page to another in a multipage table. Distinctions that are not obvious distract the reader from the subject matter of the table and may even mislead him.

916. Methods of level-distinction.—Although exact methods of level-distinction are necessarily different in letterpress and offset, in each instance established methods exist in Bureau of the Census practice which take the various limitations into account.

a. Letterpress methods.—In letterpress work (type-set composition) the distinction among various levels of center heads may rest upon various combinations of boldness (blackness) of the type and the capitalization. Any one of the three combinations shown in figure 14 is acceptable. However, combination 3 is not suitable in cases where two or three levels of heads are used with one level consisting of a specification of a year (1940) standing alone. (See par. 916d, below.) Other combinations are possible but should be approached cautiously.

b. Offset methods.—Except where special typewriters are employed, the distinction between center-head levels in materials typed for offset must be confined to capitalization and underscoring schemes. An acceptable combination is illustrated in figure 14.

FIGURE 14.—LETTERPRESS AND TYPEWRITER-OFFSET COMBINATIONS FOR CENTER HEADS IN STUB (See par. 915a)

A. Letterpress Examples

[Combination 1 is used throughout this manual]

	<i>Combination 1</i>	<i>Combination 2</i>	<i>Combination 3</i>
Single level only:	FOREIGN BORN	Foreign Born	FOREIGN BORN
Two levels of heads:	FOREIGN BORN Widowed and Divorced	Foreign Born Widowed and divorced	FOREIGN BORN Widowed and divorced
Three levels of heads:	FOREIGN BORN WIDOWED AND DI- VORCED <i>First papers</i>	FOREIGN BORN Widowed and Divorced <i>First papers</i>	FOREIGN BORN Widowed and Divorced <i>First papers</i>

B. Type Specifications for Letterpress Examples

	<i>Combination 1</i>	<i>Combination 2</i>	<i>Combination 3</i>
Single level only:	(1) 6-point antique or bold, caps	(1) 6-point antique or bold, caps and lower case	(1) 6-point caps
Two levels of heads:	(1) 6-point antique or bold, caps (2) 6-point caps and lower case	(1) 6-point antique or bold, caps and lower case (2) 6-point italics, lower case	(1) 6-point caps (2) 6-point italics, lower case
Three levels of heads:	(1) 6-point antique or bold, caps (2) 6-point caps (3) 6-point italics, lower case	(1) 6-point antique or bold, caps (2) 6-point caps and lower case (3) 6-point italics, lower case	(1) 6-point caps (2) 6-point caps and lower case (3) 6-point italics, lower case

C. Typewriter-Offset Examples With Specifications

	<i>Examples</i>	<i>Specifications</i>
Single level only:	FOREIGN BORN	(1) All caps
Two levels of heads: ¹	FOREIGN BORN Widowed and Divorced	(1) All caps (2) Initial caps (caps and lower case)
Three levels of heads:	FOREIGN BORN <u>Widowed and Divorced</u> <u>First papers</u>	(1) All caps (2) Initial caps (caps and lower case), underscored (3) Small letters (lower case)

¹ Where two levels only appear, and one level is composed of year-specification standing alone, underscore the uppermost level as:

1940	<u>FOREIGN BORN</u>
Foreign born	1940

c. **Total block given same level as components.**—In a table composed of repeated blocks of data of coordinate classification, preceded by a totality or summary block, the center head for the summary block, is not distinguished from those for the subordinate blocks. This is in accordance with the principle that no more head levels should be established than is absolutely necessary.

Example: Where a table is comprised solely of blocks for "Total," "Male," and "Female," assign the centered head for "Total" to the same level as for "Male" and "Female." (Letterpress head combination No. 1 is used for purposes of the example; see fig. 14.)

Example D-1. Customary:

TOTAL
MALE
FEMALE

Example D-2. Unnecessary distinction:

TOTAL
Male
Female

d. **Lack of distinction between lower case, and caps and lower case.**—No attempt should be made to indicate difference in the level of center heads by relying exclusively upon the difference between caps and lower case (This is in Caps and Lower Case) and lower case (This is in lower case). Since the distinction rests entirely upon the use of initial caps for the important words, a single-word heading (such as "White") or a specification of a year (such as "1940")³ will appear exactly the same with both methods of capitalization. Combinations 1 and 2 suggested in figure 14, p. 115, avoid these difficulties. Combination 3 avoids it for single words, but not for years.

Example E. Comparisons:

Caps and lower case
Widowed and divorced
White
1940

Lower case
Widowed and divorced
White
1940

Solution: See combinations offered in fig. 14.

917. **Omission of center heads in special cases.**—In some cases it may be worth while to omit center heads, particularly where a satisfactory substitute can be found or where the omission will not be misleading.

a. **Substitute colon lines, or use group total lines, in short tables where (1) only one level of heads would be required and (2) only a few lines of data are to appear under each heading.**

Example A-1. Top-heavy:

AGE
All ages.....
Under 45 years.....
45 years and over.....
RACE
All classes.....
White.....
Negro.....
Other races.....
SEX
Total.....
Male.....
Female.....

Example A-2. Satisfactory:

Age:
All ages.....
Under 45 years.....
45 years and over.....
Race:
All classes.....
White.....
Negro.....
Other races.....
Sex:
Total.....
Male.....
Female.....

³ The latter problem ("1940" standing alone as a centered head) also arises between caps, on the one hand, and small caps, on the other, since small-cap numerals rarely are available. Combinations 1 and 2 in fig. 14, have been designed specifically to solve all problems of this type. On each level, in these combinations, the type selection is distinctive for both letters and figures.

Example A-3. Satisfactory:

All ages.....
Under 45 years.....
45 years and over.....
All races.....
White.....
Negro.....
Other races.....
Both sexes.....
Male.....
Female.....

b. **Omit "NUMBER" where only "NUMBER" and "PERCENT" heads appear if there is no likelihood of misunderstanding.** It is usually sufficient to run the remaining head in lower case if it is the only one in the table.

Example B-1. "NUMBER" not essential:

Age	
NUMBER	
All ages.....	654
Under 45 years.....	499
45 years and over.....	225
PERCENT	
All ages.....	100.0
Under 45 years.....	65.6
45 years and over.....	34.4

Example B-2. Simpler and clear:

Age	
All ages.....	654
Under 45 years.....	429
45 years and over.....	225
PERCENT	
All ages.....	100.0
Under 45 years.....	65.6
45 years and over.....	34.4

c. **Omit the first heading if it describes summary lines inserted merely to establish the framework of the distribution which follows.**

Example C-1. First heading superfluous:

Major occupation group and industry group	
POPULATION AND EMPLOYMENT STATUS	
Total population (all ages).....	
All persons 14 years old and over.....	
In labor force.....	
Employed workers (except on public emergency work).....	
MAJOR OCCUPATION GROUP	
Employed (except on public emergency work).....	
Professional workers.....	
Occupation not reported.....	
INDUSTRY GROUP	
Employed (except on public emergency work).....	
Agriculture, forestry, and fishery.....	
Agriculture.....	

Example C-2. Simpler and clear:

Major occupation group and industry group	
Total population (all ages).....	
All persons 14 years old and over.....	
In labor force.....	
Employed workers (except on public emergency work).....	
MAJOR OCCUPATION GROUP	
Employed (except on public emergency work).....	
Professional workers.....	

918. Combination of head levels: General.—The question of possible combinations of head levels arises in two different types of cases.

a. To avoid multiple levels of heads.—On the one hand, it is desirable that center heads be as brief as possible so that the content may be grasped quickly and remembered readily. On the other hand, single-word heads, particularly in typewriter-offset work, do not stand out well in themselves, even though one level is in caps or is underscored, and distinctions as to comparative head-level tend to be overlooked.

Combination of two levels of heads may lead to clarity in such cases. In effect, this means repeating the upper level whenever the lower level is to be inserted. The following examples are in typewriter-offset style (see fig. 14, p. 115) but the same situation may occur in letterpress, particularly if the upper of the two levels is not in a contrasting type face.

In example A-1 the "head level" of the numerals is not particularly hard for the reader to grasp readily because each block contains only a few lines. However, the inherent defect may be serious where the blocks of data include a large number of lines each, particularly in multipage tables.

Example A-1. Without combination:

1940	
Total	
All ages.....	.....
Under 45 years.....	.....
45 years and over.....	.....
White	
All ages.....	.....
Under 45 years.....	.....
45 years and over.....	.....
Nonwhite	
All ages.....	.....
Under 45 years.....	.....
45 years and over.....	.....
1930	
Total	
All ages.....	.....
Under 45 years.....	.....
45 years and over.....	.....
White	
All ages.....	.....
Under 45 years.....	.....
45 years and over.....	.....
Nonwhite	
All ages.....	.....
Under 45 years.....	.....
45 years and over.....	.....

Example A-2. With combination:

1940: TOTAL	
All ages.....	.....
Under 45 years.....	.....
45 years and over.....	.....
1940: WHITE	
All ages.....	.....
Under 45 years.....	.....
45 years and over.....	.....
1940: NONWHITE	
All ages.....	.....
Under 45 years.....	.....
45 years and over.....	.....
1930: TOTAL	
All ages.....	.....
Under 45 years.....	.....
45 years and over.....	.....
1930: WHITE	
All ages.....	.....
Under 45 years.....	.....
45 years and over.....	.....
1930: NONWHITE	
All ages.....	.....
Under 45 years.....	.....
45 years and over.....	.....

b. To make possible an essential fourth level.—In typewriter-offset work the mechanical limitations on methods of level-distinction make more than three levels of center heads or subheads impracticable. In letterpress work this is not true to the same extent but it is still hard for the reader to keep in mind more than three level-distinctions in terms of type size, face, boldness, etc.

Where four levels are essential, two main choices appear, of which the first is preferable.

- (1) Use the group total line to indicate the lowest level, or
- (2) Combine two levels of heads by use of colons or dashes. However, if this be done, care must be exercised in making the combination, as indicated below in par. 919.

919. Selection of head-levels when combining.—The following general principles should be observed:

a. Combine consecutive heads.—Thus, if four levels are involved, combine the first and second, or the second and third, or the third and fourth. Obviously, if nonconsecutive heads (such as the first and third) are combined, table rearrangement will be necessary.

b. Maintain same order in combination as when not combined.—Reversal of order in combination is confusing unless the order of appearance of the data is also reversed.

c. Combine the shorter heads, clarity permitting.—This rule merely conforms to the need for brevity in headings.

Example A-1. Easily grasped:
URBAN—MALE

Example A-2. Hard to grasp:
NOT IN LABOR FORCE—INSIDE
METROPOLITAN DISTRICTS

d. When combining heads of unequal length, place the briefer head first, if possible. Otherwise, the briefer head is likely to become lost. However, do not reverse order to achieve this. (See par. 919b, above.)

Example B-1. Easily grasped:
URBAN—INSIDE METROPOLITAN
DISTRICTS

Example B-2. Hard to grasp:
INSIDE METROPOLITAN DISTRICTS—
URBAN

e. Examples.—The first listing below (example C-1) shows a four-level problem in typewriter-offset. Both the double and single underscore are used here to differentiate head-level. Since in practice, the double underscore should not be used, the problem is how to get rid of it. Note applications of rules c and d.

Example C-1. A 4-level listing (Not acceptable):
URBAN

Inside Metropolitan Districts
Married
Years of school completed

Example C-2. Combination B (Acceptable):

URBAN
Inside Metropolitan Districts
Married—Years of school completed

Example C-3. Combination A (Acceptable):
URBAN—INSIDE METROPOLITAN DISTRICTS

Married
Years of school completed

Example C-4. Combination C (Acceptable):

URBAN—INSIDE METROPOLITAN DISTRICTS
Married—Years of School Completed

Example C-5. Combination D (Undesirable):

URBAN
Inside Metropolitan Districts—Married
Years of school completed

920. Combination of head levels: Limitations on use.—Head combinations should be avoided unless they overcome a specific difficulty. In general, the combinations tend to be hard to read and to grasp. Their only merit is the avoidance of even worse situations. As long as only three levels of headings will be required if no combination is made, do not combine except to take care of the situation described in par. 918a, above; that is, to avoid single-word heads in a context where they do not stand out well in themselves.

Sec. 9-C. Colon and Dash (Read-in) Lines (921-933)

921. General.—These two types of stub entries have little in common except (a) strong similarity of appearance and placement and (b) the fact that cell entries never appear opposite them. Errors in their usage are almost exclusively due to a misunderstanding as to their difference in function. Typically, the dash tends to be used (erroneously) in place of the colon; rarely, the other way around.

a. The colon line is a heading and should be handled as such. The only real difference between it and a center head or subhead is that the colon line, running within the stub detail, is subject to indent rules instead of being centered. The colon line does not "read in"⁴ to its subentries. Each subentry of a colon line is a complete line caption in itself.

Example:
Nonwhite:.....
 Negro.....
 Other.....

b. The dash (read-in) line is a fragment; it is never complete in itself. A device to avoid repetition of an identical word or phrase at the beginning of a group of consecutive coordinate entries, it is an integral part of *each* of its subentries taken individually. As such, it always "reads in" smoothly to each such subentry.

Example:
Needing major repairs, with—
 White occupants.....
 Nonwhite occupants.....

THE COLON LINE (922-925)

922. Colon line defined.—A descriptive, classifying, or qualifying heading run within the detailed stub, conforming to data-line indent and ending in a colon (:). No cell entries appear opposite it in the field of the table.

Example:
By month:.....
 January..... 46
 February..... 39
 March..... 51

923. Colon line compared with dash line.—The use of the colon line arises from the need for classification or description of its subentries. The use of the dash (read-in) line arises from the desire to avoid repetition of an opening word or phrase common to a number of successive lines. The colon line is not designed to "read in" to each of its subentries; if it is capable of "reading in" it is a coincidence. The dash (read-in) line is designed specifically to "read in" to each of its individual subentries taken separately (not as a series); if it does not "read in" properly, the use of the dash is incorrect. For comparative use of colon and dash lines, see fig. 15.

⁴ For definition of "read in," see par. 927.

FIGURE 15.—COLON AND DASH LINES: THEIR USE AND MISUSE
(See par. 923)

[Arrow (→) signifies lines with incorrect or faulty use of dash or colon]

<i>Example F-1. Original stub (abridged)</i>	<i>Example F-2. Corrected stub</i>
STEEL WORKS AND ROLLING MILLS	STEEL WORKS AND ROLLING MILLS
All products, total value.....	All products, total value.....
Unrolled steel, total.....	Unrolled steel, total.....
Ingots—	Ingots—
Produced and consumed in works.....	Produced and consumed in works.....
For sale and interplant transfer.....	For sale and interplant transfer.....
Direct steel castings—	Direct steel castings—
Produced and consumed in works.....	Produced and consumed in works.....
For sale and interplant transfer.....	For sale and interplant transfer.....
Finished hot-rolled products and forgings, total.....	Finished hot-rolled products and forgings, total.....
Produced and consumed in works.....	Produced and consumed in works.....
For sale and interplant transfer.....	For sale and interplant transfer.....
Concrete reinforcing bars.....	Concrete reinforcing bars.....
Merchant bars, mill shafting, etc.—	Merchant bars, mill shafting, etc.—
Steel.....	Steel.....
Iron.....	Iron.....
Bolt and nut rods, spike and chain rods, etc.....	Bolt and nut rods, spike and chain rods, etc.....
Wire rods.....	Wire rods.....
→ WIRE AND WIRE PRODUCTS (ALL METALS)	WIRE AND WIRE PRODUCTS (ALL METALS)
All industries, total value.....	All industries, total value.....
Iron and steel wire:	Iron and steel wire:
Plain wire, total.....	Plain wire, total.....
For sale and interplant transfer.....	For sale and interplant transfer.....
Produced and consumed in works.....	Produced and consumed in works.....
Galvanized wire: For sale and interplant transfer.....	Galvanized wire: For sale and interplant transfer.....
→ Copper wire:	Copper wire—
For sale and interplant transfer.....	For sale and interplant transfer.....
Produced and consumed in works.....	Produced and consumed in works.....
Fabricated wire products for sale:	Fabricated wire products for sale:
Iron and steel—	Iron and steel—
Nails, brads, and spikes.....	Nails, brads, and spikes.....
Tacks.....	Tacks.....
Staples.....	Staples.....
Other fabricated iron and steel wire products.....	Other fabricated iron and steel wire products.....
→ Nonferrous wire products—	Nonferrous wire products:
Fly screening—	Fly screening:
Copper and bronze.....	Copper and bronze.....
Other metals.....	Other metals.....
Fourdrinier and cylinder wire cloth.....	Fourdrinier and cylinder wire cloth.....
→ Other wire cloth—	Other wire cloth:
Copper and bronze.....	Copper and bronze.....
Other metals.....	Other metals.....
Copper strand, except insulated.....	Copper strand, except insulated.....

924. Single subentry.—Where colon lines are used, and one (or more) of the categories has only a single subentry, the subentry should be run in on the same line as the colon line, preserving the colon. (*Note:* For dash lines, the same rule applies except that the dash is then omitted, see par. 929.)

Right:	Undesirable:
Increase: 1930 to 1935.....	Increase: 1930 to 1935.....

925. Typical uses.—The colon line is used for many purposes. A few of the more common uses are illustrated below.

a. To indicate the nature of the classification employed in its subentries, particularly when such classification differs from that utilized in the data lines in the preceding group.

Example A-1:

Race:	White.....	Negro.....	Other races.....
Sex:	Male.....	Female.....	

Example A-2:

By kind:	Anthracite coal.....	Bituminous coal.....	Coke purchased.....
By use:	Generator and boiler fuels.....	Bituminous coal carbonized.....	

b. To indicate the kind of data classified by the subentries, or the area or group covered, when the subentries do not make it clear in themselves.

Example B-1:

Diphtheria:	Both sexes.....	18
	Male.....	11
	Female.....	7

Example B-2:

Birmingham:	Immediate rate.....	4.98
	Objective rate.....	4.92

c. To maintain the identity of a group for which data are presented for the component parts but not for the group total.

Example C-1:

White.....	40	
Nonwhite:	Negro.....	8
	Other.....	2

Example C-2:

Automotive dealers:	Automobiles and trailers.....
	Accessories, parts, etc.....
	Filling stations.....

d. To indicate the presentation unit for the data classified by the subentries when, otherwise, the presentation unit might be in doubt. (*Note* that this is a means of avoiding use of a field spanner above the figures in the field. See par 1434c.)

Example D-1:

Thousands of dollars expended:	1927.....	1928.....	1929.....	1930.....
Thousands of units produced:	1927.....	1928.....	1929.....	1930.....

Example D-2:

Number of families:	One person.....	Two persons.....	Three or more.....
---------------------	-----------------	------------------	--------------------

Example D-3:

Per 1,000 of the population:	Under 45 years old.....	45 years old and over.....
------------------------------	-------------------------	----------------------------

e. To indicate a common effective date or portion of a year.

Example E-1:

First quarter:	Under 45.....	45 and over.....
	(or)	July 1, 1941:
	Under 45.....	45 and over.....

Example E-2:

First quarter:	1941.....	1942.....
	(but)	July 1—
	1941.....	1942.....

THE DASH (READ-IN) LINE (926-933)

926. Dash (read-in) line defined.—A stub entry, terminated by a dash, designed to be read as an integral part of each individual line indented under it. That is, it is a part of each subentry taken separately, not of the group of subentries as a series. It is a device designed primarily to avoid repetition of the same opening phrase for a number of consecutive data lines of coordinate significance.

a. Basic principle.—The basic principle involved is that—

This:	A and b.....	} is another way of saying this:	A and b.....
	B and—.....		B and a.....
	a.....		B and b.....
	b.....		B and c.....
	c.....		C and a.....
	C and a.....		

b. Construction method.—The common opening phrase is removed from all members of the group, is inserted by itself above the first affected data line, and is terminated by a dash (—), *not a colon*. The data-line captions thus shortened are then indented under it.

Example A-1 (Before insertion of dash line):

Cropland harvested on farms operated by owners.....	acres..	218
Cropland harvested on farms operated by managers.....	acres..	451
Cropland harvested on farms operated by tenants.....	acres..	762
Crop failure.....	acres..	68

Example A-2 (After insertion of dash line):

Cropland harvested on farms operated by—		
Owners.....	acres..	218
Managers.....	acres..	451
Tenants.....	acres..	762
Crop failure.....	acres..	68

927. "To read in" defined.—Most errors in construction of non-data lines arise from the use of the dash where the colon is required. Correct usage of the dash rests upon proper understanding of the term "to read in."

A *line caption* "reads in" to each of its subentries if each separate combination will read smoothly when the two portions (the dash portion and the subentry portion) are run together without the dash. The line does not "read in" if smooth reading requires—

- Insertion of a colon at the joining point;
- Addition of any word or phrase to the combination;
- Rearrangement of wording; or
- Running in the subentries as a series with the read-in portion at the beginning.

Exception: The "residual" type of subentry (such as "All other") is a special case discussed in paragraph 928, below.

928. Residual subentries: A special case.—Residual⁵ subentries may, at times, be exempted from the rule that the dash line must "read in" smoothly to each of its subentries. Since by custom the wording of residuals tends to be condensed heavily, they frequently cannot be "read into" properly. The following is faulty in this

⁵ For discussion of the residual, see par. 1143a.

respect but is permissible since the defect is limited to the residual ("Owned homes with other races").

Faulty:	Owned homes with—
	White occupants.....
	Negro occupants.....
	Other races.....

Alternatives: Several are possible. The dash may be retained, or a colon substituted, as in the examples which follow, but note that each has its own limitations. In particular, caution is necessary when transposing words in such headings lest the meaning be changed. Thus, in "Alternative D" below, a faulty transposition has changed the unit of presentation from "Owned homes" to "Occupants of owned homes." Frequently, it is better to accept a residual line that is faulty in terms of "reading in" than to attempt to reword it. However, this exception to the "read-in" requirement applies solely to residual entries; not to "last lines of a group," as such.

Alternative A

Owned homes occupied by—
Whites.....
Negroes.....
Others.....

Alternative B

Owned homes with—
White occupants.....
Negro occupants.....
Occupants of other races..... (Lengthy)

Alternative C

Owned homes by race of occupants:
White.....
Negro.....
Other races.....

D. Wrong (meaning changed)

Occupants, owned homes, by race:
White.....
Negro.....
Other races.....

929. Single subentry not permissible.—The use of the dash line with only one subentry is incorrect by definition. Run the subentry in with the dash line and delete the dash, thereby forming a unified line caption. (Note: For colon lines the same mechanical procedure is followed, except that the colon is preserved.)

Right:	Wrong:
Having one child or more.....	Having—
	One child or more.....

930. Confusion of terminal with internal dash.—The sole function of the terminal dash is to indicate that the line "reads in" with each of its subentries. Do not confuse this with other uses of the dash when it appears *within* a given line.

If a beginning word or phrase, common to two or more entries, is separated by a dash from each, do not lift it and use it as a read-in line, retaining the dash. In such cases, the dash should be changed to a colon when the phrase is placed above the group. (In the following example, the use of the dash in the "original form" is questionable; commas would have been more appropriate.)

Example A-1. Original form:

Softwoods—balsam fir.....
Softwoods—cedar.....
Softwoods—cypress.....
Softwoods—Douglas fir.....

Example A-2. Wrong:

Softwoods—
Balsam fir.....
Cedar.....
Cypress.....
Douglas fir.....

Example A-3. Right:

Softwoods:
Balsam fir.....
Cedar.....
Cypress.....
Douglas fir.....

931. Consecutive read-in lines permissible.—If table requirements make it desirable, one read-in line may follow immediately upon another as long as the read-in principle is maintained throughout. That is, the first dash line must read smoothly into the second dash line, and the second, in turn, must read smoothly into each of its subentries, taken separately.

In this form, the line caption for each of the data line subentries is split into three parts instead of into two.

In general, this usage should be discouraged since it presents an additional complication in the table. In any case, this technique is undesirable unless *at least* three levels of classification of data are involved.

Example A-1. Preferred:

Number of homes:
Not needing major repairs, with—
White occupants.....
Nonwhite occupants.....
Needing major repairs, with—
White occupants.....
Nonwhite occupants.....

Example A-2. Acceptable:

Number of homes—
Not needing major repairs, with—
White occupants.....
Nonwhite occupants.....
Needing major repairs, with—
White occupants.....
Nonwhite occupants.....

Example A-3. Unnecessary (Combine the dash lines and overrun):

Cropland harvested—
On farms operated by—
Owners.....
Managers.....
Tenants.....
Crop failure.....

932. Effect on space requirements of stub.—Over and beyond the question of clarity or of greater ease in reading, the use of the dash (read-in) line may increase or decrease stub depth or width. Type-writer-offset examples are used to illustrate this point.

a. Stub depth.—In general, if the original entries (before subtracting the opening word or phrase) are so short that overruns are not necessary, the addition of a dash (read-in) line will increase the depth of the stub. (See example A.) If the original entries are long and require overruns, the read-in line will decrease the depth of stub by N-1 lines, where "N" is the number of overrun lines saved. (See example B.)

Example A. Stub increased in depth:

A-1. Original:

Revenue, total.....	
From timber.....	
From water power.....	
From special uses.....	
From grazing.....	
From all other.....	
DDDDDDDDDDDDDDDDDDDDDD	

Example B. Stub decreased in depth:

B-1. Original:

Cropland harvested on farms	
operated by owners.....	WWWWW
Cropland harvested on farms	
operated by managers.....	WWWWW
Cropland harvested on farms	
operated by tenants.....	WWWWW
Crop failure.....	WWWWW

"D" denotes line added if "read-in" is used.

A-2. With read-in:

Revenue, total.....	WWW
From—	
Timber.....	WWW
Water power.....	WWW
Special uses.....	WWW
Grazing.....	WWW
All other.....	WWW

"W" denotes spaces saved in width.

B-2. With read-in:

Cropland harvested on	
farms operated by—	
Owners.....	WWWWW
Managers.....	WWWWW
Tenants.....	WWWWW
Crop failure.....	WWWWW
DDDDDDDDDDDDDDDDDDDDDD	WWWWW

"D" denotes line saved in depth.

"W" denotes spaces saved in width.

b. **Stub width.**—Obviously, if the length of the original lines controls the stub width, a decrease in maximum line width will pull in the stub width accordingly. This may be seen in examples A and B, immediately above, where the space saved in stub width is indicated by the number of W's appearing at the right.

933. Test of read-in application.—Errors in use of the terminal dash can best be illustrated by examining the result when the read-in line is coupled with each of its subentries. Note the result in the following typical cases.

Correct usage in examples B to E, inclusive, requires the use of a colon; the dash is correct only if the wording is rearranged. Thus, in example C, the wording might be changed to "Owned homes with—," and the dash retained accordingly. (See also fig 15, p. 121.)

Example A. Right:

Families having—

One child.....
Two children.....
More than two children.....

Effect when combined

Families having one child.....
Families having two children.....
Families having more than two children.....

Example B. Wrong:

By number of items—

One item.....
Two items.....
More than two items.....

By number of items one item.....
By number of items two items.....
By number of items more than two items.....

Example C. Wrong:

Owned homes—

White occupants.....
Negro occupants.....
Occupants of other races.....

Owned homes white occupants.....
Owned homes Negro occupants.....
Owned homes occupants of other races.....

Example D. Wrong:

1940—

January.....
February.....
March.....

1940 January.....
1940 February.....
1940 March.....

Example E. Wrong:

Wells, pumped and flowing—

Area irrigated.....acres..
Area works were capable of supplying
with water.....acres..

Wells, pumped and flowing area irrigated
.....acres..
Wells, pumped and flowing area works were
capable of supplying with water.....acres..

Sec. 9-D. The Line Caption: The Data Line (941-948)

941. "Line caption" defined.—The descriptive title or stub entry for any line of the table. A *data line* is any line containing any cell entry whatsoever in the field of the table. The cell entry may be informational (figure, word, phrase, reference symbol, etc.) or non-informational (leaders). Even though *all* cell entries on a given line are noninformational (leaders), the line is to be considered a data line.⁶

⁶ "All-leader" lines are undesirable. They should be omitted from copy except (a) where, in letterpress work, retention seems desirable in order not to destroy standard presentation of repeated blocks or where the lack of data is significant in itself; or (b) where, in typewriter-offset work, standard table forms with preprinted stubs are being used.

The data line is the basic unit of the stub since it is on these lines that the information appears. Dash and colon lines are not data lines. The caption of the data line is invariably followed by stub leaders, except where space prevents.

Examples:

Wood manufactures.....	12,623
1939.....	2,492
Total.....	39,752
Paper and pulp.....	100.0
Land and drainage enterprises.....	(*)
50 to 499 acres.....	
Denmark.....	} 155
Iceland.....	
Chicago, Ill.....	(*)
Amount.....dollars..	623
Full owners.....1930..	754

942. General classes: Prime and nonprime.—*Prime lines* are those rows or lines of data constituting the hard core of the table. From them, all other, or *nonprime*, data lines in the table can be derived by mathematical processes.

A line that is prime in one table may be nonprime in another, and vice versa. Also, a line may be prime to a given table in a series or report; but if it can be reconstructed from lines appearing in some other table, or in a combination of tables, it will be nonprime to the series or report as a whole.

These distinctions are useful in table-planning in that—

- Inclusion of a *prime line* increases, and its deletion or omission decreases, the amount of basic data made available to the user; whereas—
- Inclusion of a *nonprime line* increases, and its deletion decreases, facility of table-use by the reader.

Thus, derived figures, or group totals, are strong interpretative aids; their presence makes it unnecessary for the interested reader to compute them himself. However, the deletion of such a line, if nonprime, does not deprive the reader of *basic data* since the statistical ingredients remain, and the user can reconstruct the deleted material.

943. Types of prime lines.—In combination, the information shown on prime lines constitutes the total body of basic information presented to the user. In terms of the information presented in a *given table*, prime lines may be classified as follows:

- Lines of frequency data not further classified in the same table.
- Lines of derived figures (percentages, averages, means, medians, etc.) which cannot be derived from data presented in the same table.
- Nonadditive total and subtotal lines; that is, totals or subtotals for which incomplete distributions are shown. If such a total line is removed, the reader cannot reconstruct it from the data remaining.
- "Special-group" data lines presenting group figures for special-purpose or nonstandard intervals which, if deleted, cannot be reconstructed from the data

remaining. *Example:* A line giving total population for those "21 years old and over" in a table otherwise confined to standard 5-year age groups is a *prime* line, since the standard interval "20 to 24" does not provide a classification break at 21 years.

944. Functions and types of nonprime lines.—Nonprime lines perform three important functions and are of several types.

a. Functions.—In general terms, nonprime lines—

(1) Provide significant and important direct information to the user, such as grand totals and group totals. Major totals, in most instances, are virtually essential to effective use of the table.

(2) Provide measures of significance, such as percentages, averages, medians, etc., which the user may be unable to compute for himself, or the need for which he may not recognize.

(3) Aid in establishing the analytical framework which needs to be understood if the meaning and significance of the data are to be grasped readily.

b. Types.—In terms of a *given table*, nonprime lines may be classified into two main types:

(1) All total and subtotal lines which can be obtained by addition of the data appearing in the same table. Where space demands a sacrifice of lineage, it is usually necessary to delete prime lines before sacrificing major totals.

(2) Lines of other derived figures (percentages, averages, medians, etc.) which can be derived from data presented in the same table.

945. Additive and nonadditive lines.—A classification of data lines useful in placement of horizontal rules. (See sec. 13-B, below, for placement and use of horizontal rules.)

a. Additive lines.—Any one of two or more lines of entries which, taken together, will add to a total or subtotal line presented in the table. The individual lines in such a "group" may appear consecutively or may be dispersed. They may, in themselves, be prime or nonprime; thus, one of the "group" may be a prime data line and one or more of the others may be a subtotal line.

b. Nonadditive lines.—A line not a member of any group of lines which together add to a total or subtotal shown in the table; or any line not subject, or not intended to be subjected, to the additive process, such as means, medians, etc.

946. Capitalization.—Line captions are normally set in lower case (This is in lower case), never in caps and lower case (This Is in Caps and Lower Case), and rarely in caps (THIS IS IN CAPS). Captions for grand totals, or major group totals, are sometimes, but rarely, set in caps in typewriter-offset work. In letterpress work, the use of boldface type for group totals makes the use of caps unnecessary.

Example A-1. Right:
 All classes.....
 White occupants.....
 Negro occupants.....
 Occupants of other races.....

Example B-1. Right:
 All classes.....
 White occupants.....
 Negro occupants.....
 Occupants of other races.....

Example A-2. Not acceptable:
 All Classes.....
 White Occupants.....
 Negro Occupants.....
 Occupants of Other Races.....

Example B-2. Rarely acceptable:
 ALL CLASSES.....
 White occupants.....
 Negro occupants.....
 Occupants of other races.....

Example B-3. Not acceptable:
 All Classes.....
 White Occupants.....
 Negro Occupants.....
 Occupants of Other Races.....

Example B-4. Wrong:
 ALL CLASSES.....
 WHITE OCCUPANTS.....
 NEGRO OCCUPANTS.....
 OCCUPANTS OF OTHER RACES.....

947. Punctuation.—Normal punctuation is used throughout except as follows:

a. Periods are omitted at the end of abbreviations which are followed by leaders. However, if the abbreviation is followed by a footnote reference symbol (even though that symbol is followed by leaders) the period is inserted preceding the reference symbol.

Example A:

	Letterpress	Typewriter
Right:	Teachers, n. e. c.....	Teachers, n. e. c.....
Wrong:	Teachers, n. e. c.....	Teachers, n. e. c.....

Example B:

Right:	Teachers, n. e. c. ¹	Teachers, n. e. c. ¹
Wrong:	Teachers, n. e. c. ¹	Teachers, n. e. c. ¹

b. Where a line caption overruns in a table with tracer numbers, or with two or more reading columns, the cell entries are placed against the top line of the caption, leaders are omitted, and the overrun ends with a period. (See par. 1014.)

948. Use of roman, boldface, and italic.—In letterpress, line captions are normally set in roman (ordinary) type. The use of boldface and italic is normally restricted to the specific situations outlined in section 10-D.

Sec. 9-E. The Line Caption: Total and Subtotal Lines (951-960)

951. Definition.—The descriptive title (or caption) of any data line composed of grand totals, group totals, or subtotals. A special case of the line caption for the data line.

952. Various meanings of term "Total."—In tabular presentation the term "Total" is subject to a number of different interpretations, a fact which may lead to confusion. Several of the more important meanings which may be assigned to the term are:

a. The result of a summation process applied to the line's subordinate entries; the sum of the parts where the parts are actually shown separately. This is the most commonly understood meaning of the term, similar to that used in accounting. It is the normal meaning in such phrases as "total line," "total entry," etc.

b. The aggregate, or total number, as an independent item. This usage is typified by such individual lines (without subentries) as "Total value (thousands of dollars)."

c. The total, or the whole, as a class in itself, or as representing a class of classes. This is typified by the "Total" class in the area classification: "TOTAL, URBAN, RURAL."

In most instances, these differences tend to be academic in that a given total entry may reflect two, or even all three, of these meanings at the same time.

At times, however, it is important that the reader understand which meaning is intended, or that one of the meanings does not apply. Here, the table designer should keep the above-mentioned distinctions in mind and should govern his treatment of center heads, the footnotes keyed to them, and the line captions for total and subtotal lines, accordingly.

953. "Total"—Signifying result of summation.—Where standing alone on a line having subentries, "Total" implies that the entries shown against it represent the summation of the figures shown for the subentries where the subentries are additive. Special problems are—

a. Inclusion in "Total" of a subentry not shown separately.—The most common case is where the "unknown" category is not shown but is included in the total figures. Footnote the total line (or the appropriate entry) and specify "not shown separately."

Example A-1. Right:

Total	300	500
Under 45 years	180	300
45 and over	100	195

Example A-2. Wrong (footnote needed):

Total	300	500
Under 45 years	180	300
45 and over	100	195

* Includes "Age not reported," not shown separately.

b. Presentation of selected items of a distribution.—Frequently it is desirable to show a total with only one or two members (not all members) of a distribution. In letterpress, italic is used (for both caption and entries) for such subentries. In typewriting, where italic is not available, no distinction is made if the situation is self-evident. Where not self-evident, footnote the omission or make the situation clear in the caption.

Example B-1. Right (letterpress):

All ages	300
Under 45 years	180

Example B-2. Right (typewriter):

All ages	300
Under 45 years	180

c. Failure of percentages to add to 100.0.—Since normally the Bureau of the Census rounds, but does not force, percentages, a full percentage distribution may not add to 100.0. This does not affect presentation practice. If the total line is shown, the entry of "100.0" appears in each appropriate cell even though the actual summation in that column may be 99.9, 100.1, etc. No special treatment is needed for the total line.

d. Nonadditive derived figures.—Total line treatment is the same for non-additive derived figures as it is for additive frequencies; that is, the treatment as a total line depends upon the relationship of the frequencies of the classes into which the distribution is being made, even though the derived figures do not add to the entry on the total line. In examples C to F, the "total lines" are treated exactly alike. In example C, the percentages add to the total entry. In example D, they do not add vertically since the distribution is horizontal. In example E, each cell percentage reflects the cell-to-cell relationship of two different frequency tables. In example F, medians are shown.

Example C:

Total	100.0	100.0	100.0
Under 45 years	55.5	65.0	80.5
45 and over	44.5	35.0	19.5

Example D:

Total	100.0	75.0	25.0
Under 45 years	100.0	65.0	35.0
45 and over	100.0	80.5	19.5

Example E (Percent white):

Total	44.9	65.1	24.6
Under 45 years	45.0	65.2	24.8
45 and over	44.8	65.0	24.5

Example F (Medians):

Total	26.5	26.7	26.2
Under 45 years	26.9	27.1	26.6
45 and over	23.5	23.7	23.3

954. "Total"—Signifying the aggregate as an independent item.—Commonly, this may be expressed in two ways as indicated below. See paragraph 957 for discussion of conditions under which "Total" should be placed first or last in the caption.

a. Stressing the totality aspect, by placing the word "Total" first:

Total value (thousands of dollars)	.....
Total acreage (thousands of acres)	.....

b. Stressing the nature of the item, by placing "Total" last:

Value, total	.....	or	Value (total)	.....
Acreage, total	.....	or	Acreage (total)	.....

955. "Total"—The whole as a class in itself.—Typically, this represents a case where a centered head reading "TOTAL" has been moved down to, and combined with, a total-line caption reading "Total" This operation, although frequently desirable, may give rise to confusion in the mind of the reader unless performed carefully.

a. Center heads must be shifted to total lines consistently, or not at all.—In the example below, the heads "TOTAL," "URBAN," and "RURAL" are all handled as coordinate, with "TOTAL" representing a class comprised of the combined urban and rural areas. If one of these is shifted to the total line, all must be. If the shift is made, then all total-line captions serve a dual purpose, indicating both summation and class.

Example A-1. Original:

TOTAL	.....
Total	.....
White	.....
Nonwhite	.....
URBAN	.....
Total	.....
White	.....
Nonwhite	.....
RURAL	.....
Total	.....
White	.....
Nonwhite	.....

Example A-2. Right. All shifted:

Total	.....
White	.....
Nonwhite	.....
Urban	.....
White	.....
Nonwhite	.....
Rural	.....
White	.....
Nonwhite	.....

Example A-3. Wrong. First shifted only:

Total	.....
White	.....
Nonwhite	.....
URBAN	.....
Total	.....
White	.....
Nonwhite	.....
RURAL	.....
Total	.....
White	.....
Nonwhite	.....

b. Class use of "Total" as line caption where total-line entries represent summation of subentries.—Shifting of center heads to total-line captions should not be done mechanically. The dual function of the "Total" caption under such circumstances must be kept in mind. Qualifications inherent in terms of either function must be indicated against the single line-caption.

At times, this may make the combination undesirable. Thus, if a qualification of an entire block of data is indicated by footnoting a center head, and the "Total" caption is also qualified on a point pertaining to the summation aspect only, the shift of the center head to the total line is undesirable. Not only will two reference symbols be necessary against the single word "Total," but one reference will refer to the entire block and the other to the single line only. This is likely to confuse the reader. (See pars. 642-643.)

Example B-1. Clear:

URBAN ¹	
Total ²	500
Under 45 years.....	280
45 years and over.....	210

¹ Outside metropolitan districts.
² Includes "Age not reported," not shown separately.

Example B-2. Confusing:

Urban ^{1 2}	
Under 45 years.....	280
45 years and over.....	210

¹ Outside metropolitan districts.
² Includes "Age not reported," not shown separately.

956. Multiple uses of total-line captions.—Within the limitations expressed above, the word "Total" may be omitted completely where it is obvious that a given line of entries comprises totals or subtotals. Common uses of total-line captions which reduce the number of center heads required are—

a. To make clear the exact group being classified:

EMPLOYED		} can be listed	Employed persons.....	
Total.....	}		}	White.....	Nonwhite.....
White persons.....				
Nonwhite persons.....				

b. To make clear the unit of presentation:

FAMILIES		} can be listed	Number of families.....	
Total.....	}		}	Having no children.....
Having no children.....				
Having one child.....				

c. To clarify the nature of the classification:

Total.....		} can be listed	All ages.....	
Under 45 years old.....	}		}	Under 45 years.....
45 years and over.....				

d. To specify area covered:

THE STATE		} can be listed	The State.....	
Total.....	}		}	Urban.....	Rural.....
Urban.....				
Rural.....				

e. To avoid designating a grand total cell as "Total-Total" when the description of the grand total column is too long to be made clear in the box:

Example C (Assume detailed caption for total column would read "Total population, 15 to 45 years old, except persons in institutions"):

Occupation	Total	Labor force status
Total ¹		
Musicians and teachers of music, etc.....		

¹ Clearer if it read "All occupations . . ." or "All occupations, total . . ."

f. To provide an additional head-level where additional levels of center heads are not desired.—Ordinarily, head combinations (par. 918) should not be made until the total-line captions have been used for head purposes.

Example D-1. Top-heavy:

THE STATE	
White.....	Married.....
Total.....	Spouse present.....
Spouse present.....	Spouse absent.....
Spouse absent.....	

Example D-2. Improved:

THE STATE	
White.....	Married.....
Spouse present.....	Spouse absent.....
Spouse absent.....	

957. Placement of "Total" in combination with other wording.—Frequently, where a wording other than "Total" is used for a total or subtotal line, it is desirable to include the word "Total," also. Here the question arises whether the word "Total" should be placed first (Total male) or last [Male, total, or Male (total)] in the given caption. This depends largely upon the sense in which the term is used and the position of the line in the general pattern of the table. Everything else being equal, the following rules may be applied.

a. Place "Total" first (in the caption)—

(1) If the basic purpose of the caption is to indicate the result of summation of subentries.

(2) If the word "Total" represents a class in itself, particularly if there are a number of total lines of coordinate value:

Example A-1. Right:

Total males.....
Urban males.....
Rural males.....

Example A-2. Wrong:

Males, total.....
Males, urban.....
Males, rural.....

(3) If there are no other total or subtotal lines of coordinate value which will start with "Total."

(4) If the aggregate, or total number, as such, is to be stressed.

b. Place "Total" last (in the caption)—

(1) If the basic purpose of the caption is to indicate the nature or class of data presented, rather than the fact that it represents a summation.

(2) If the reason for its insertion is to avoid a misapprehension as to whether the given category is entirely represented. If definitely parenthetical, parentheses are appropriate.

(3) In the case of minor group totals where the line caption of the subtotal is a standard item in a coordinate listing and is appearing as such.

958. "Total" vs. "All."—At times the word "All" is used on total and subtotal lines. Although "All" may be used in place of "Total" at times, it is not synonymous in table design and should not be considered as such.

a. "Total" may be used standing by itself.—"All" should not be; it should always be followed by another word or phrase.

Example A-1. Right:

Total.....	White.....
White.....	Negro.....
Negro.....	Other.....
Other.....	

Example A-2. Wrong:

All.....	White.....
White.....	Negro.....
Negro.....	Other.....
Other.....	

Example A-3. Right:

All races.....	White.....
White.....	Negro.....
Negro.....	Other.....
Other.....	

b. Both may be used in indicating presentation unit.—However, "Total," when so used, implies nothing more than that the line entries represent the summation of the units shown in the subentries. "All" implies that the line contains figures for the entire universe comprised of units "x," irrespective of type.

Thus, "Total families" means merely "Total families (of the type shown)." "All families" means "All families (of every type)." Therefore, if "All" is used, the caption should specify in full the group covered; if "Total" is used, complete specification in the line caption is not necessary, although frequently desirable.

Example B-1. Right:

Total.....	75
Under 45 years old.....	50
45 to 84 years old.....	25

Example C-1. Right:

All ages.....	90
Under 45 years.....	50
45 to 84 years old.....	25
85 years and over.....	11
Age not reported.....	4

Example B-2. Wrong:

All ages.....	75
Under 45 years old.....	50
45 to 84 years old.....	25

Example C-2. Right:

All ages.....	90
Under 45 years old.....	50
45 to 84 years old.....	25
85 years and over.....	11
Includes "Age not reported," not shown separately.	

959. Capitalization, boldface, and use of rules.—Total and sub-total lines are normally set or typed in lower case, thus:

Right: Number of stations..... Wrong: Number of Stations.....
 Right: Number of stations..... Undesirable: NUMBER OF STATIONS.....

a. Use of boldface.—In letterpress, both the captions of grand total and group total lines, and the data appearing in the lines, may be set in boldface. (See also par. 1032.)

Example:

All ages.....	100	47	38	15
Under 45 years old.....	65	29	27	9
45 years and over.....	35	18	11	6

b. Caps.—In offset (typewriter), the use of caps should be reserved, if used at all, for—

(1) Grand total line captions where many group subtotal captions are also shown.

(2) Group subtotal captions that are extremely short (single words) and which may tend to be hidden by the longer subentries. However, the use of caps should be avoided even here except where absolutely necessary. Where used, all lines of coordinate value in construction must be treated similarly.

c. Horizontal rules and underscore.—Insert in the field only under the grand-total entries and those major group totals which carry subentries under them, which subentries add to the total in question. Do not carry the horizontal rule or underscore under the captions in the stub.

960. Indentation.—See section 10-A.

Sec. 9-F. The Unit-Indicator⁷ (961-966)

961. Definition.—A device designed to make clear the exact unit of measurement to which the given statistics refer. The unit-indicator is sometimes referred to, as in the G. P. O. *Style Manual*, as the "unit of quantity."

⁷ For discussion of unit-indicators in the boxhead, see par. 1225a; in the field of the table, see sec. 14-C.

a. May appear in stub, box, or field.—Unit-indicators may appear in the stub, in the box, or in the field of the table. The discussion below relates specifically to their appearance in the stub, but the general principles involved apply wherever they appear.

b. Similar auxiliary devices.—For the purposes of this manual, the term "unit-indicator" includes all similar devices which, serving as caption auxiliaries, specify the time reference (.....1921...); the nature of the measure employed (.....median...); the magnitude of the unit (.....thousands...); etc. The general mechanical rules are identical for all such devices, and the circumstances of proper use are the same. The discussion which follows, therefore, makes no differentiation between these classes of indicators, as such.

Examples:

.....	number.....	dollars.....
.....	percent.....	weeks.....
.....	.....	number of sales.....
.....	median.....	per 1,000 of the population.....
.....	acres.....	.....
.....	bushels.....	1923.....
.....	pounds.....	farms reporting.....

Note: In typewriter-offset work, unit-indicators may be lined up either at the left or the right, as long as the line-up is consistent in the given report.

962. Restrictions on use.—The unit-indicator is used *only* when the presentation unit, etc., would otherwise be in doubt, particularly where the unit varies from line to line. It is an auxiliary device, essential in some tables, not needed in most.

a. Needed where unit varies.—Typically, it is used when the presentation unit differs from one part of the table to another, particularly from line to line.

b. Not needed where unit is constant.—Where an identical presentation unit prevails throughout the table, it should be made clear in the title or in the head-note. (See pars. 325 and 512a.) In such cases, the unit-indicator should be used in stub, box, or field in only those cases where the wording of line captions or boxhead captions are such as to confuse the issue.

963. Placement and use of leaders.—Where unit-indicators are run in the stub, they are placed at the right of the given stub line. Leaders are run solidly between the line caption and indicator; that is, no open space precedes or follows the leaders. This rule applies in both letterpress and typewriter offset.

Example A-1. Right: Cotton.....	pounds..	78, 524
Example A-2. Wrong: Cotton.....	pounds..	78, 524
Example A-3. Wrong: Cotton.....	pounds..	78, 524

a. Line-up of unit-indicators of different length.—For mechanical reasons, the line-up may vary for letterpress and offset, as follows:

(1) In letterpress, unit-indicators invariably line up at the right with exactly two leader dashes (1-em leader) between each unit-indicator and the first column rule.

Example B:

Cotton.....	running bales..	333
Wheat.....	bushels..	444

(2) In typewriter-offset, unit-indicators may line up at either the left or the right. If they are lined up at the left, two typewriter periods should be placed between the longest indicator on the page and the first column rule.

Example C-1. Lined up at the left:

Cotton.....running bales..| 333
Wheat.....bushels.....| 444

Example C-2. Lined up at the right:

Cotton.....running bales..| 333
Wheat.....bushels.....| 444

b. **Overruns.**—Avoid overruns of unit-indicators; that is, do not break them over to the next line. Carry them over entirely or not at all.

(1) If there is not enough room for the entire unit-indicator on a given line, leave the remainder of the line blank; place the entire unit-indicator at the right of the next line, with leaders following but not preceding it.

(2) The informational entries appear against the line on which the unit-indicator falls, *except* in tables with tracer numbers or with more than one reader column. (See par. 1014.)

Right: Wheat flour
1,000 sacks of 100 lb..| 14, 741
Wrong: Wheat flour..1,000 sacks
of 100 lb..| 14, 741

Right: Cocoa and chocolate
pounds..| 65, 224
Wrong: Cocoa and chocolate
(pounds).....| 65, 224
Wrong: Cocoa and chocolate
----pounds..| 65, 224

c. **“Do.” for “ditto” not used by Census Bureau.**—The abbreviation “Do.” (meaning “ditto”) is not normally used by the Bureau of the Census. When used with unit-indicators, G. P. O. practice should be observed as follows:

“Do.” followed by 2 ems of leaders (4 leader dashes), is used under a unit of quantity in a stub if the unit is spelled; if the unit is abbreviated, the abbreviation is repeated.”

964. **Reference range.**—The unit-indicator, when inserted within the stub, is applicable to all items appearing in the cells on that line until a unit-indicator column, another stub column, or the right-hand edge of the table is reached. This is the same rule as for the line caption itself.

Example A. Not clear; what is the relationship of the unit-indicator in the stub to the “Value” spanner in the box? A study of original table showed that total value was meant, not value per indicated unit.

Item	Quantity			Value (thousands of dollars)		
	1936	1937	1938	1936	1937	1938
Cattle.....number..						
Butter.....1,000 lb..						
Milk.....1,000 gal..						

Example B. Preferred; unit in stub is clearly related to quantity figures only. The “Value” spanner is not qualified by the unit column.

Item	Unit	Quantity			Value (thousands of dollars)		
		1936	1937	1938	1936	1937	1938
Cattle.....	Number.....						
Butter.....	1,000 lb.....						
Milk.....	1,000 gal.....						

965. **Specify units of measure clearly.**—Avoid popular terminology which is not scientifically accurate. Thus, such terms as bushel, barrel, gallon, ton, etc., may be confusing or unsatisfactory when standing alone since these measures vary by weight according to product or commercial practice. The standard practices of the various subject-matter divisions of the Bureau of the Census, as exemplified in their published materials, reflect the importance of this factor and the proper method of treatment.

Where the exact nature of a given measure is constant for an entire report, it may be explained in the text. Where it differs from table to table, particularly when differences appear within a given table, it should be qualified in the tabular material.

The following excerpt is from an export table.

Example:

Barley:
Grain.....1,000 bu. of 48 lb..
Malt.....1,000 bu. of 34 lb..
Buckwheat.....1,000 bu. of 48 lb..
Corn:
Grain.....1,000 bu. of 56 lb..
Meal.....1,000 bbl. of 196 lb..
Hominy and corn grits.....1,000 lb..
Kafir and milo.....1,000 bu. of 56 lb..
Corn cereal foods, ready to eat.....1,000 lb..
Oats: Grain.....1,000 bu. of 32 lb..
Wheat:
Grain.....1,000 bu. of 60 lb..
Flour wholly of domestic wheat.....1,000 bbl. of 196 lb..

966. **Unit and date columns.**—A unit column is advisable where every line, or a vast majority of the lines, in a table requires a unit-indicator. Such a column usually appears as the first column in the field, headed by such a term as “Unit.” (See example B, par. 964.) Unit columns may appear elsewhere in the table as needed.

Similarly, where necessary to indicate the effective date against each line caption, a date column may be added in a similar position. A unit column counts as a reader column (see par. 1014b); a date column does not.

Chapter 10

THE STUB: CONSTRUCTION AIDS TO CLARITY (1001-1033)

Sec. 10-A. Stub Indentation (1001-1010)

1001. Indentation defined.—The degree of inset assigned a given line-caption, measured from the left-hand margin of the stub; or the amount of space left blank between the left-hand margin and the beginning of the given line-caption.

“*Indent pattern*” refers to the organized method, or scheme, employed to allocate indent space from line to line, and to the over-all effect produced thereby.

1002. Purpose and function.—To emphasize and clarify the inter-line relationships in terms of comparative level of classification; that is, superior, coordinate, or subordinate.

“*Classification level*,” in this instance, refers to the *construction aspects of the table*, not to absolute position in a purely conceptual scheme based on content. That is, items of coordinate ranking in a conceptual scheme may not carry the same indent within a table, or among tables, particularly where a subtotal line, colon line, or dash line intervenes.

Thus, in the following example, each individual race is coordinate in the conceptual ranking, and bears the same indent in table 1. However, the interposition of the colon line “Other races” in table 2, and of the subtotal line “Nonwhite” in table 3, results in shifting the minor race groups to a subordinate classification level for purposes of indent. Note, also, the use of the term “Other races” in tables 1 and 2. This is a residual, and as such has no identity of its own. Therefore, its value will vary in terms of the detail of classification shown *above it*.

Conceptual ranking	Table 1	Table 2	Table 3
White	White.....	White.....	White.....
Negro	Negro.....	Negro.....	Nonwhite.....
Indian	Indian.....	Other races:	Negro.....
Chinese	Chinese.....	Indian.....	Indian.....
Japanese	Japanese.....	Chinese.....	Chinese.....
Filipino	Filipino.....	Japanese.....	Japanese.....
Korean	Korean.....	Filipino.....	Filipino.....
Other races	Other races.....	etc.	etc.

1003. Basic principles of comparative indent.—With the exception of the “Total” or “reverse” indent (see par. 1004), the amount of indent given a particular line is in inverse order to its level in the classification as presented. Lines of superior classification are generally presented (in Bureau of the Census tables) above lines of inferior classification, with the totals and subtotals appearing at the top of the listing of component parts.

a. **Lines of inferior classification** are indented more than lines of superior classification; a component part is normally indented under its total, *except* where “reverse” indent (see par. 1004) is used for line captions of group totals.

b. **Lines of coordinate classification** are given identical indent within a given table block.

c. **Lines of superior classification** are given less indent than lines of inferior classification, *except* in case of “reverse” indent used for line captions of group totals.

1004. “Reverse” versus “flush” indent for group totals and subtotals.—Either of these two types of indent may be used for group totals and subtotals. Although the “flush total” (flush to the left margin) conforms strictly to the principle of comparative indent, a common practice is to indent the total line and to run the first sublevel of detail flush. Advantages of each method and factors determining the selection are indicated in paragraphs 1005 and 1006, below.

Total with “reverse” indent:	Total with “flush” indent:
Total.....	Total.....
White.....	White.....
Nonwhite.....	Nonwhite.....

1005. Indented group totals.—For normal use, indentation of group totals is recommended. Several advantages justify this departure from the normal rules for comparative indent. Note, however, that a space break is essential above each such caption. (See par. 1005d, below.)

a. **Permits use of flush position for description of first level of subentries.**—The user is more interested in these than in any emphasis upon the presence of the group totals since he tends to assume that the major group totals will be there if he wants them.

b. **Permits better definition of the left-hand margin of the table.**—Improved margin definition is achieved by placing the more frequently recurring classification-level in the flush position. This is more apparent in long listings than in short ones. Obviously, if the grand total caption is run flush, then only that one line caption on the entire page will be flush under normal indent rules; the remainder must be indented. A “ragged edge” at the left is not conducive to easy reading or to grasping of comparative indent.

c. **Permits better use of stub width when subentry captions are long.**—Usually the line captions for subentries are longer than the line caption for the total line.

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Thus, in the following example, each individual race is coordinate in the conceptual ranking, and bears the same indent in table 1. However, the interposition of the colon line “Other races” in table 2, and of the subtotal line “Nonwhite” in table 3, results in shifting the minor race groups to a subordinate classification level for purposes of indent. Note, also, the use of the term “Other races” in tables 1 and 2. This is a residual, and as such has no identity of its own. Therefore, its value will vary in terms of the detail of classification shown *above* it.

<p><i>Conceptual ranking</i></p> <p>White Negro Indian Chinese Japanese Filipino Korean Other races</p>	<p><i>Table 1</i></p> <p>White..... Negro..... Indian..... Chinese..... Japanese..... Filipino..... Korean..... Other races.....</p>	<p><i>Table 2</i></p> <p>White..... Negro..... Other races: Indian..... Chinese..... Japanese..... Filipino..... etc.</p>	<p><i>Table 3</i></p> <p>White..... Nonwhite..... Negro..... Indian..... Chinese..... Japanese..... Filipino..... etc.</p>
---	--	---	--

1003. Basic principles of comparative indent.—With the exception of the “Total” or “reverse” indent (see par. 1004), the amount of indent given a particular line is in inverse order to its level in the classification as presented. Lines of superior classification are generally presented (in Bureau of the Census tables) above lines of inferior classification, with the totals and subtotals appearing at the top of the listing of component parts.

a. **Lines of inferior classification** are indented more than lines of superior classification; a component part is normally indented under its total, *except* where “reverse” indent (see par. 1004) is used for line captions of group totals.

b. **Lines of coordinate classification** are given identical indent within a given table block.

c. **Lines of superior classification** are given less indent than lines of inferior classification, *except* in case of “reverse” indent used for line captions of group totals.

1004. “Reverse” versus “flush” indent for group totals and sub-totals.—Either of these two types of indent may be used for group totals and subtotals. Although the “flush total” (flush to the left margin) conforms strictly to the principle of comparative indent, a common practice is to indent the total line and to run the first sublevel of detail flush. Advantages of each method and factors determining the selection are indicated in paragraphs 1005 and 1006, below.

<p>Total with “reverse” indent:</p> <p> Total..... White..... Nonwhite.....</p>	<p>Total with “flush” indent:</p> <p> Total..... White..... Nonwhite.....</p>
--	--

1005. Indented group totals.—For normal use, indentation of group totals is recommended. Several advantages justify this departure from the normal rules for comparative indent. Note, however, that a space break is essential above each such caption. (See par. 1005d, below.)

a. **Permits use of flush position for description of first level of subentries.**—The user is more interested in these than in any emphasis upon the presence of the group totals since he tends to assume that the major group totals will be there if he wants them.

b. **Permits better definition of the left-hand margin of the table.**—Improved margin definition is achieved by placing the more frequently recurring classification-level in the flush position. This is more apparent in long listings than in short ones. Obviously, if the grand total caption is run flush, then only that one line caption on the entire page will be flush under normal indent rules; the remainder must be indented. A “ragged edge” at the left is not conducive to easy reading or to grasping of comparative indent.

c. **Permits better use of stub width when subentry captions are long.**—Usually the line captions for subentries are longer than the line caption for the total line.

By indenting the total line and running the subentries flush, the number of overruns for subentries is decreased, particularly in detailed classifications involving multiple levels.

Example A-1. Wastes space and defines left edge poorly:

Exports.....
 Crude materials.....
 Foodstuffs.....
 Semimanufactures.....
 Finished manufactures.....

Imports.....
 Crude materials.....
 Foodstuffs.....
 Semimanufactures.....
 Finished manufactures.....

Example A-2. Saves 1 pica (4 spaces) and defines left edge better:

Exports.....
 Crude materials.....
 Foodstuffs.....
 Semimanufactures.....
 Finished manufactures.....

Imports.....
 Crude materials.....
 Foodstuffs.....
 Semimanufactures.....
 Finished manufactures.....

d. Space break essential to avoid appearance of a subentry.—A space break, such as a blank line, is desirable above any total-line caption given a reverse indent. Otherwise the entry is likely to be mistaken for a subentry under the last line of the preceding group. The space break is essential in typewriter-offset work, and in letterpress composition where the subtotal lines are not in boldface. (Even where boldface subtotals are used, the space break is helpful in this situation.) If no such space break is provided, the reverse indent should not be used.

Example B-1. Right (space above "Chinese"):

All classes.....
 White.....
 Negro.....
 Other races.....
 Chinese, total.....
 Native.....
 Foreign born.....

Example B-2. Wrong (no space break):

All classes.....
 White.....
 Negro.....
 Other races.....
 Chinese, total.....
 Native.....
 Foreign born.....

1006. The flush total.—This method has distinct advantages in certain instances, as follows:

a. May clarify relationship between total and its immediate subentries.—Use the flush total where serious uncertainty may arise in the reader's mind concerning this relationship. Paragraph 1006c illustrates such an instance. However, where this relationship is obvious, no real advantage accruing from this factor is found in using the flush total.

b. Permits better use of stub width when caption is long.—Stub width is saved by the flush total if the caption for the total line is longer than that for the subentries. Even here, however, overrunning the total caption may be preferable to use of the flush total if the increased depth is no object. The following examples are numbered from the widest to the narrowest in stub width.

Example A-1:

Persons 14 years old and over...
 14 years.....
 15 years.....
 16 years.....

Example A-2:

Persons 14 years old and over...
 14 years.....
 15 years.....
 16 years.....

Example A-3:

Persons 14 years old and over...
 14 years.....
 15 years.....
 16 years.....

Example A-4:

Persons 14 years old and over...
 14 years.....
 15 years.....
 16 years.....

c. Useful in clarifying relationship where only a few items have subentries.—Here the margin is more closely defined by use of the flush total than where the indented total is used. In example B-1 the danger that the last subentry of the

previous block will be mistaken for a subtotal for the following group of major entries is lessened considerably, as compared with example B-2. In example B-3, space breaks are used, coupled with all cap lines in typewriter-offset. The result is still confusing and, in addition, wastes vertical space.

Example B-1. Preferred:
 (Letterpress or typewriter)

Dauphin.....
 White.....
 Nonwhite.....
 Davis.....
 Dayton.....
 Ebert.....
 Ecorah.....
 White.....
 Nonwhite.....
 Evanston.....
 Farrell.....

Example B-2. Confusing:
 (Letterpress or typewriter)

Dauphin.....
 White.....
 Nonwhite.....
 Davis.....
 Dayton.....
 Ebert.....
 Ecorah.....
 White.....
 Nonwhite.....
 Evanston.....
 Farrell.....

! This looks like a subtotal for the following indented lines.

Example B-3. Confusing and wastes vertical space

a. Letterpress:

Dauphin.....
 White.....
 Nonwhite.....
 Davis.....
 Dayton.....
 Ebert.....
 Ecorah.....
 White.....
 Nonwhite.....
 Evanston.....
 Farrell.....

b. Typewriter (caps undesirable):

DAUPHIN.....
 White.....
 Nonwhite.....
 DAVIS.....
 DAYTON.....
 EBERT.....
 ECORAH.....
 White.....
 Nonwhite.....
 EVANSTON.....
 FARRELL.....

1007. Criteria for selection of indent method.—Following are rules of thumb which may be used in selecting the method to be employed. In each case, the entire picture needs to be taken into account. With everything else equal, however, adherence to these rules will result in a satisfactory, though not necessarily the best, result.

a. Use indented total—

- (1) Where only a grand total is shown (no group totals appear).
- (2) Where the group-total designations are consistently shorter than their subentries.

(3) Where a great many group totals appear of coordinate classification, each of which carries subentries.

- (4) With a series of coordinate blocks of three or more lines each.

b. Use flush total—

(1) Where a great many group totals appear of coordinate classification but only a few carry subentries.

(2) Where the group-total designations are consistently longer than their subentries.

- (3) With a series of coordinate blocks of less than three lines each.

c. Grand total lines.—A grand total entry may be given a "total indent" even though the major group totals under it are run flush. The contrary is also true.

d. Consistency of total indent.—Even for "total lines" representing coordinate items, it is not essential that all such total-line captions be indented equally on the page. It is desirable, however, when other construction aspects permit.

1008. Effect of vertical spacing on indent scheme.—Any kind of indent scheme leans heavily for effectiveness upon proper vertical spacing of the line captions and heads. In particular, an indented total must always carry a space break above it to avoid confusion. Where space is left below an indented total for insertion of a horizontal rule across the field of the table, *at least* the same space must be left clear above it!

Headings and total-line captions should always tend to “sit down” on the material to which they relate. The following rules should be adhered to rigidly.

- a. An indented line caption for a total line must always have clear space above it.
- b. If space is provided below a total-line caption, *at least* the same space must be left clear above it; preferably the space above should be greater than the space below.

Example A-1. Acceptable:

Urban, total.....	_____
White.....	.....
Negro.....	.....
Other.....	.....
Rural, total.....	_____
White.....	.....
Negro.....	.....
Other.....	.....

Example B-1. Acceptable:

URBAN	
All races.....	.....
White.....	.....
Negro.....	.....
Other.....	.....
RURAL	
All races.....	.....
White.....	.....
Negro.....	.....
Other.....	.....

Example A-2. Confusing:

Urban, total.....	_____
White.....	.....
Negro.....	.....
Other.....	.....
Rural, total.....	_____
White.....	.....
Negro.....	.....
Other.....	.....

Example B-2. Confusing:

URBAN	
All races.....	.....
White.....	.....
Negro.....	.....
Other.....	.....
RURAL	
All races.....	.....
White.....	.....
Negro.....	.....
Other.....	.....

1009. Indent spacing: Basic rules.—The following indent rules are listed in order of comparative level. The “flush” position is included in order to make a complete picture. All indents are figured from the “flush” position. For illustration of the various indent possibilities, see fig. 16, page 143.

Rule 1. Total or “reverse” indent (where used).—Indent 3 ems, letterpress; 6 typewriter spaces, offset. (In a table tight in width, the total indent may be decreased to 2 ems, letterpress; 4 typewriter spaces, offset.) Two subsidiary rules are basic:

- a. Where several total-line captions appear, each comprised of “Total,” standing alone, it is not essential that they be given uniform indentions throughout the page. Specifically—

FIGURE 16.—INDENTIONS, WITH AND WITHOUT CONFLICTS AT VARIOUS LEVELS (See pars. 1009–1010)

[Each square (□) represents 1 em of indent in letterpress, 2 typewriter spaces in typewriter-offset]

Line No.		Rule No.
1	□□□Total.....	1
2	Flush caption.....	2
3	Flush caption: Its overrun causes no conflict if followed by another flush caption.....	2
4	Flush caption.....	5
5	Flush caption: Where followed by a caption with a normal 2-em primary indent, no overrun conflict will occur.....	2
6	□□Primary indent.....	5
7	Primary indent: Its overrun will not conflict unless it is followed by a caption with secondary indent.....	3
8	□□Primary indent: Where followed by a subentry with secondary indent, avoid conflict by indenting the overrun 1 em more.....	3
9	□□Secondary indent.....	6
10	Secondary indent.....	4
11	□□Primary indent: Where followed by a total caption, the overrun will conflict unless set in 1 em more.....	4
12	□□□Total.....	3
13	Flush caption.....	2
14	Flush caption.....	2
15	□□Primary indent.....	3
16	Primary indent.....	3
17	□□Secondary indent.....	4
18	Secondary indent: Conflict does not occur except when followed by a subentry.....	4
19	□□□Secondary indent: Where followed by a subentry, avoid conflict by indenting the overrun 1 em more.....	4
20	□□□Subordinate indent.....	6
21	Subordinate indent.....	4
22	□□□Total: Its overrun is subject to the same rules as other line captions.....	4
23	Flush caption.....	5
24	Flush caption.....	2
25	□□Primary indent.....	2
26	Primary indent.....	3
27	□□Secondary indent.....	3
28	Secondary indent: An overrun here, followed by a total caption, presents a dual complication. First, since the basic indent conflicts with the total indent, the total caption (below) is moved 1 em to the right (rule 1-b). In the new position, however, it conflicts with the overrun indent on the line above; hence, the overrun also is moved to the right (rule 6).....	4
29	□□□Total.....	6
30	Flush caption.....	6
31	Flush caption.....	6
		1b
		2
		2

b. If the basic indent of the preceding line caption (not its overrun) interferes, "Total" is indented an additional 1 em, letterpress (2 spaces, offset), to avoid conflict.

Note: Where the indent of an *overrun* of the preceding line caption interferes, the *overrun* is indented 1 em (2 spaces) more; the "Total" indent is not changed. (See rule 6, par. 1010.)

Rule 2. Flush position.—No indent, flush at left margin.

a. If a line or tracer number, or a group number, appears at the left of the stub, allow 1 em in letterpress (2 typewriter spaces in offset) between the column rule and the flush position in stub, not including the space for the column rule.

Rule 3. Primary indent.—Indent 2 ems, letterpress; 4 typewriter spaces, offset. In a tight table, this may be reduced to 1 em, letterpress; 2 typewriter spaces, offset.

Rule 4. Secondary and following subordinate indents.—For each level, indent an additional 1 em, letterpress; 2 typewriter spaces, offset.

Example A-1. Normal indent:

Total indent.....
Flush position.....
Primary indent.....
Secondary indent.....
Subordinate indent.....

Example A-2. Table tight in width:

Total indent.....
Flush position.....
Primary indent.....
Secondary indent.....
Subordinate indent.....

1010. Indent for overruns.—The above rules are for basic indent and are based on the assumption that each line caption occupies one line only. This indent scheme must be maintained rigidly if the pattern is to fulfill its objective. Where overruns "conflict" with the basic indent of the following caption, the adjustment is always made in the indent of the overrun, never in the basic indent.

Overrun defined.—That portion of a caption that extends beyond the first line.

Example of overrun:

This caption is not overrun..... "overrun" → This caption is long enough to require this overrun.....

Observance of the following rules will eliminate most indent problems arising from the presence of overruns. These rules are supplementary to rules 1 through 4, listed in par. 1009, above.

Rule 5.—Overruns are normally given a hanging indentation of 1 em, letterpress (2 typewriter spaces, offset), *more* than the basic indentation of the caption of which they are a part.

Example A-1. Right:

Insecticides, fungicides, and related industrial and household chemical compounds.....

Example A-2. Wrong:

Insecticides, fungicides, and related industrial and household chemical compounds.....

Rule 6.—If an indent conflict results; that is, if the indent of an overrun will be identical with the basic indent of the line caption

immediately following, the overrun is assigned an additional indent of 1 em, letterpress; 2 typewriter spaces, offset.

Note: Compare with rule 1-b, where conflict of basic indent is involved and note that conflicts are always resolved by a method which provides minimum disturbance to the classification function of the basic indent pattern.

Sec. 10-B. Leaders (1011-1018)

1011. General definition.—A row of tiny and closely placed dashes (dash leaders), or a row of periods (typewriter-offset) *lined up at the bottom* of the data-line caption and extending from it across the entire width of the table, except where interrupted by a column rule or an informational cell-entry.

Example: White..... | Yes | 1930 | | 25 | (?) | | 6 | 10.6

1012. Purpose and function.—The purpose and function of the leader line is twofold:

a. It carries the eye from one point to another along a given line; that is, it maintains horizontal legibility.

b. (In the field of the table) By filling otherwise empty cells, it makes it clear that the lack of informational entries is intentional and not caused by an oversight.

Examples:

		A-1. With leaders							
Total.....		Yes	1925	(?)	12	10	(?)	9.7	2
White.....									
Negro.....		No		(?)				1.8	2
Other races.....									

		A-2. Without leaders							
Total.....		Yes	1925	(?)	12	10	(?)	9.7	2
White.....									
Negro.....		No		(?)				1.8	2
Other races.....									

1013. Stub leaders defined.—That portion of a leader line which appears in the stub. It bridges the gap between the data-line caption and the field of the table. The stub leader extends from the *end* of the caption to the column rule which defines the right-hand edge of the stub. *Exception:* For extension of leaders from the top line of an overrun caption, see paragraph 1014, below.

For mechanical reasons, leader practice differs in letterpress and offset work, as follows:

a. **Letterpress.**—Normal rules prevail. The dash leader is used, extended the full width of the table except where interrupted by column rules or superseded (in cells) by informational entries. In the cells, the leaders extend across the full cell width.

Example A:

White.....	25	16	(?)	3	2
Negro.....	4	2			

b. Offset (typewriter).—A row of periods is used as the substitute for the letterpress leader dashes. In the cells, three periods (. . .) are used to reduce the number of typing strokes for filling otherwise blank cells. They are lined up at the right, not centered.

Example B:

White.....	25	16	(2)	...	10.6	...	23.78	2,378
Negro.....	4	2	...	...	...	...	...	...

1014. Leaders and overruns.—Normally, leaders are placed against the end of the line caption, irrespective of the presence of overruns.

“Overrun” defined.—That portion of a caption which extends beyond the first line. That is, if a line-caption takes up three lines in the stub, the second and third lines constitute the “overrun.”

Example:

“overrun” →	Musicians and teachers of music.....	25	15	-----
-------------	---	----	----	-------

Two special cases arise, however, where the leaders are omitted from the stub (though not from the field) because the informational entries are run against the *top* line of the caption, even though an overrun is present.

a. Tables with tracer numbers.—Where tracer numbers appear on the left and right side of each page (or on left and right of parallel pages) and a line caption overruns, omit the stub leaders for that caption. Run the information against its top line, and end the overrun with a period.

Reason: Tracer numbers should line up horizontally. For better line identification, the left tracer number should always appear at the *beginning* of a line caption (first or top line). Placement of the cell entries also on this line keeps the tracer numbers lined up properly across the page (or facing pages) and simplifies reading across. In such a case stub leaders are inappropriate.

Example A-1. Standard practice:
("X" denotes line number columns):

X	10	Personal services.....	10	15	-----	40	50	-----	X
11	Miscellaneous industries and services.	10	15	-----	60	70	-----	11	

Example A-2. Not recommended:

X	10	Personal services.....	10	15	-----	40	50	-----	X
11	Miscellaneous industries and services.....	10	15	-----	60	70	-----	11	

b. Tables with two or more reader columns.—If only one “reader” column (column containing a word or phrase) appears in the field of the table, run the leaders (and informational entries) from the bottom line of an overrun as usual unless tracer numbers are present. A standard date column is not considered to be a reader column. If tracer numbers appear, run the information against the top line and end the overrun with a period.

If two or more reader columns appear in the field, and a line-caption overruns, omit the stub leaders for that line caption, and end the overrun with a period (same rule as for tracer numbers). This is true irrespective of overruns in either or all of the reader columns.

Right:

Australia, Common-wealth of.	Governor General.....	Parliament: Senate, House of Representa- tives.	Dominion; State.
------------------------------	-----------------------	---	------------------

Wrong:

Australia, Common-wealth of.....	Governor General.....	Parliament: Senate, House of Representa- tives.	Dominion; State.
----------------------------------	-----------------------	---	------------------

Right:

Cotton fibers in raw state.....	June 18	75,124	81,251	If overrun in cell.	15	-----
---------------------------------	---------	--------	--------	---------------------	----	-------

Wrong (one reader column; line up at bottom, not at top):

Cotton fibers in raw state.	Mar. 17	42,648	98,250	Single reader column.	15	-----
-----------------------------	---------	--------	--------	-----------------------	----	-------

Wrong (two reader columns; line up at top, not at bottom):

Cotton fibers in raw state.....	Yes.....	42,468	98,250	Second reader column.	15	-----
---------------------------------	----------	--------	--------	-----------------------	----	-------

1015. Period omitted preceding leaders.—Periods are invariably omitted preceding leaders, even though the period in question terminates an abbreviation.

a. Letterpress.—Here, the error, if any, is immediately apparent since the period is distinctly different from the opening dash in the leader.

Right: Laborers, n. e. c. Wrong: Laborers, n. e. c.

b. Offset.—Since a row of typewriter periods is substituted for dash leaders, the erroneous inclusion of a terminal period would be concealed were it not for the fact that the error tends to be compounded by leaving a space between it and the first leader dot (period).

Right: Laborers, n. e. c. Wrong: Laborers, n. e. c.

1016. Leaders run flush to caption.—Leave no space between the last character of the line caption and the beginning of the leader line.

Right: White..... Wrong: White

1017. Colon or dash (read-in) captions never take leaders.—If the caption ends in a colon or a dash, no informational entries should appear opposite it in the cells and the caption does not take leaders. If informational entries are to appear against such a line, delete the colon or dash and substitute leaders, changing the wording as necessary.

Example A:

A-1. Right:	A-2. Right:	A-3. Wrong:
Softwoods:	Softwoods.....	Softwoods.....
Balsam.....	Balsam.....	Balsam.....
Cedar.....	Cedar.....	Cedar.....
Cypress.....	Cypress.....	Cypress.....

Example B:

B-1. Right:	B-2. Right:	B-3. Wrong:
By race:	All classes.....	By race.....
White.....	White.....	White.....
Negro.....	Negro.....	Negro.....
Other.....	Other.....	Other.....

Example C:

C-1. Right:
 Families having—
 No children.....
 1 child.....
 2 children.....

C-2. Right:
 Total families.....
 Having no children.....
 Having 1 child.....
 Having 2 children.....

C-3. Wrong:
 Families having—
 No children.....
 1 child.....
 2 children.....

1018. Stub leaders and unit-indicators.—This problem is discussed in paragraph 963 in the material on unit-indicators.

Sec. 10-C. Space Breaks: Analytical and Reader (1021-1030)

1021. Definition.—The space break is an open space or blank "line" inserted at periodic intervals to break up solid blocks of line captions (and their data). Extending across the full width of the page, it should be inserted wherever more than 15 lines (at most) would otherwise appear in a solid group.

Example A-1. Without reader breaks:

Alabama.....	93, 787
Arizona.....	17, 600
Arkansas.....	40, 910
California.....	97, 510
Colorado.....	51, 503
Connecticut.....	37, 915
Delaware.....	11, 535
District of Columbia.....	23, 834
Florida.....	71, 526
Georgia.....	40, 770
Idaho.....	16, 129
Illinois.....	87, 176
Indiana.....	46, 969
Iowa.....	77, 601

Example A-2. With reader breaks:

Alabama.....	93, 787
Arizona.....	17, 600
Arkansas.....	40, 910
California.....	97, 510
Colorado.....	51, 503
Connecticut.....	37, 915
Delaware.....	11, 535
District of Columbia.....	23, 834
Florida.....	71, 526
Georgia.....	40, 770
Idaho.....	16, 129
Illinois.....	87, 176

1022. Purpose and function.—Improves horizontal legibility by grouping the entries:

- a. Provides guide "lines" across the page.—The reader's eye, when tracing a line of entries, can more readily note the relative position of the line in a small block than in a large block.
- b. Relieves monotony and eye-strain caused by unrelieved masses of figures, particularly where the table is tight and any kind of white space is at a premium.

1023. Analytical versus reader breaks.—The reader break is often confused with the analytical space break since each consists of an open space or blank line extending across the page.

- a. The reader break is purely mechanical in nature. Its insertion depends strictly upon the need for breaking up large masses of data remaining after analytical design has been completed.
- b. The analytical space break is a means of setting off lines or groups of lines in terms of analytical relationship. A function of original design, it has little to do with mechanics as such.

Example A-1. Reader breaks:

Apples.....
Cherries.....
Peaches.....
Apricots.....
Pears.....
Plums and prunes.....
Olives.....
Grapes.....
Almonds.....
Filberts and hazelnuts.....
Pecans.....
Tung.....
Walnuts.....
Oranges.....
Grapefruit.....
Lemons.....

Example A-2. Analytical breaks:¹

Apples.....
Cherries.....
Peaches.....
Apricots.....
Pears.....
Plums and prunes.....
Olives.....
Grapes.....
Almonds.....
Filberts and hazelnuts.....
Pecans.....
Tung.....
Walnuts.....
Oranges.....
Grapefruit.....
Lemons.....

¹ If desired, a reader break might be inserted after "Pears"; that is, 5 lines down.

1024. Insertion of analytical breaks.—The erroneous belief that insertion of all space breaks is the duty of the "mark-up man" (person marking up copy for the printer or reproduction typist) leads to complaints when the resultant grouping "doesn't make sense," or where it might have been improved "if the breaks had been inserted properly." Usually, the difficulty is caused by failure of the table-designer to provide analytical breaks at the proper places.

a. Analytical space breaks.—Analytical grouping of the data by means of space breaks is as much a part of analytical design as determination of line-order. In general, space breaks of this type should be inserted before the table is sent to reproduction typing or to the printer. The table-designer will profit by observing the following procedure:

- (1) Specify grouping of lines where significant analytical purposes will be served.—Preferably, the breaks should appear on the posting sheets, since they are helpful in posting, computing, and checking.
- (2) Review stub for solid masses remaining.—Note, particularly, any instance where 15 or more lines appear without a break. If these are passed by the designer, it is probable that the mark-up man will break up each mass by arbitrary insertion of reader breaks.
- (3) Determine acceptability of reader breaks.—If the material is such that no analytical advantage can be gained by organized grouping of lines by use of minor analytical breaks, the material may be let pass; provided, that the designer is willing to accept reader breaks inserted at arbitrary points. If not, or if a logical grouping in terms of meaning and use of the data presents itself, minor analytical breaks should be indicated. See example under paragraph 1023 for improvement achieved by use of planned analytical breaks.

Note: The analyst or table-designer should not specify amount of space; he should merely indicate that a space break is desired, thus:

Example A-1. When marked like this:

Rhode Island.....
Connecticut.....
> New York.....
New Jersey.....
Pennsylvania.....

Example A-2. It will be set like this: *

Rhode Island.....
Connecticut.....
New York.....
New Jersey.....
Pennsylvania.....

* Exact amount of space may vary.

b. Reader breaks.—The mark-up man concerns himself (1) with the mass effect *after* the analyst has completed his task, and (2) with general page-fitting requirements which may demand "spacing out" which cannot be anticipated by the analyst. Any large mass of data remaining *after* insertion of analytical breaks called for on the copy may be broken up by the mark-up man *according to mechanical rules*. (See par. 1025, below.)

1025. Reader-break insertion: General principles.—Following is a list of more or less standard practices in inserting reader breaks.

- a. Required in any solid group of more than 15 lines.
- b. Subgroups thus created should not be less than five lines each. However, the last subgroup (or last two subgroups) in a column or list may contain as few as three lines, but not fewer, in order to equalize columns or pages. (Subgroups caused by analytical breaks do not involve these limitations since the grouping is based on the meaning of the data. See par. 1027b.)
- c. Should not be inserted between an overrun and its parent entry.
- d. Should not be inserted where the indent shifts from a higher to a lower level.
- e. Should not be inserted where they might lead to faulty analytical groupings. Although this is the primary concern of the analyst, the mark-up man avoids errors of this type where possible within the limits of his time and training.
- f. Placement should not be influenced by possible use as counting aids; that is, reader breaks are not designed to aid counting of items by arranging the data in standard groups as such, even though this is often considered a byproduct. It follows that—

(1) If a 5- or 10-line basic group is selected, the pattern need not be maintained rigidly merely to facilitate item-counting.

(2) If facilitating item-counting is an objective in table design, a line or group number scheme should be adopted, or the analyst should specify special breaks accordingly.

1026. Reader-break insertion: In lists of coordinate items.—In lists of independent or coordinate entries, or in blocks of data arranged alphabetically or in obvious rank order, it is customary to insert a reader break every 5 or 10 lines. "Counting off" of lines starts over at the top of each stub column (in fractional-measure tables), at the top of a page, and at every major group total shown.

a. Consistency of break.—In general, if either a 5-line or a 10-line break is used at the beginning of a column, it should be used throughout that column, except at the bottom for equalizing with other columns. Although it may be desirable, it is not essential that the same basic grouping be used throughout the table. In fractional-measure tables, reader breaks in parallel portions of the table need not line up with each other.

b. Left-over groups.—If the total number of lines in a listing is not a multiple of the number of lines in the standard adopted for the reader-break groups, the odd group (or groups) appears at the bottom of the column, page, or listing, not at the top. This means that—

- (1) The first group at the top of a given column or page should be a standard group, whether or not the preceding group (at bottom of preceding column or page) is "complete."

(2) In order that columns (and pages) may be even, the printer is at liberty to take out or insert reader breaks, readjusting the groupings accordingly. Usually, such adjustment is confined to the last group (or last two groups) in each column, but not always.

(3) Where less than three lines will fall in the last group, they should be combined with the preceding group or groups. After such combination, the consolidated group may be broken in turn into smaller groups with a lesser or greater line count than the standard groups above.

1027. Reader-break insertion: In lists of noncoordinate items.—Placement of reader breaks in lists of noncoordinate items requires use of considerable judgment to avoid bad grouping. In general, the table-designer would be well-advised, in such cases, to insert minor analytical breaks, drawing upon his knowledge of the meaning of the data to obtain maximum clarity and usefulness of the result.

Basic problem: When line captions are given differential indent, at what point will insertion of a space break enhance meaning and avoid confused groupings?

The following list of general rules may prove helpful.

a. Standard groups not necessary.—Where the items are not coordinate, no standard grouping of the 5-line or 10-line type is necessary; frequently it is not practicable. However, wherever any portion of the stub facilitates such groupings, their use is advisable for that portion.

b. Maximum and minimum lines per group.—In general, the same rules hold as for coordinate listings. That is, break up all masses of 15 line captions or more. Do not show groups of less than 3 lines.

In practice, if the line relationships are sufficiently distinctive, two lines, or even one line, may be set off. However, such small groupings should be reserved for such cases as—

(1) Tables with blocks of frequency data which end with one or two lines of derived figures, such as medians or averages; or

(2) Tables with blocks of standard intervals followed by one or two overlapping intervals. *Example:* The age break "21 years old and over" appearing at the end of a standard 5-year group listing.

Example A. Right:

Under 4.0 percent.....
4.0 percent.....
4.1 to 4.4 percent.....
4.5 percent.....
4.6 to 4.9 percent.....
5.0 percent.....

5.1 to 5.4 percent.....
5.5 percent.....
5.6 to 5.9 percent.....
6.0 percent.....
6.1 or more.....

Average rate (percent)...

Example B. Right:

15 to 19 years.....
20 to 24 years.....
25 to 29 years.....
30 to 34 years.....
35 to 39 years.....
40 to 44 years.....

45 to 49 years.....
50 to 54 years.....
55 to 59 years.....
60 to 64 years.....
65 and over.....

21 years and over...

c. Insert where indent shifts to a higher, not to a lower level.—The end of a block of subentries is usually a sound location for a space break; the beginning of such a block is usually a bad location.

Example C-1. Right:

15 to 19 years.....
 White.....
 Negro.....
 20 to 24 years.....
 White.....
 Negro.....
 25 to 34 years.....
 White.....
 Negro.....

Example C-2. Wastes space:

15 to 19 years.....
 White.....
 Negro.....
 20 to 24 years.....
 White.....
 Negro.....
 25 to 34 years.....
 White.....
 Negro.....

Example C-3. Wrong:

15 to 19 years.....
 White.....
 Negro.....
 20 to 24 years.....
 White.....
 Negro.....
 25 to 34 years.....
 White.....
 Negro.....

d. Insert above, not below, subtotal entries.—A special case of 1027c, above. Space breaks, if inserted, are placed above, not below, a subtotal entry. That is, a space break should not separate a subtotal entry from its first three subentries. This rule holds good even though space breaks also may be inserted within the subentry block. Furthermore, the fact that a space break appears *below* the last subentry is no reason to insert one just *above* the first subentry.

Example D-1. Acceptable:

Under 5 years.....
 5 to 14 years.....
 15 to 24 years.....
 25 to 34 years.....
 35 to 44 years.....
 35 years.....
 36 years.....
 37 years.....
 38 years.....
 39 years.....
 40 years.....
 41 years.....
 42 years.....
 43 years.....
 44 years.....
 45 to 54 years.....
 55 to 64 years.....
 65 to 74 years.....
 75 to 84 years.....
 85 years and over.....

Example D-2. Not acceptable:

Under 5 years.....
 5 to 14 years.....
 15 to 24 years.....
 25 to 34 years.....
 35 to 44 years.....
 35 years.....
 36 years.....
 37 years.....
 38 years.....
 39 years.....
 40 years.....
 41 years.....
 42 years.....
 43 years.....
 44 years.....
 45 to 54 years.....
 55 to 64 years.....
 65 to 74 years.....
 75 to 84 years.....
 85 years and over.....

e. Avoid space breaks after colon or dash lines.—The insertion of a space break after a colon or dash line leads to confusion. This is particularly true of the dash line since the “read in” is thereby interrupted. If a space break is needed, place it above, not below, such a caption.

1028. Inclusion of total and subtotal lines when counting off lines for reader-break groups.—This is largely a matter of choice. In general—

a. Include in count if no horizontal total or subtotal rule is used.—Here, the total or subtotal caption is running solid with its subentries and groups naturally with them.

b. Exclude from count if horizontal total or subtotal (underscore) rule appears.—The slight gap left in the stub by the use of total rules in the field tends to separate the total or subtotal caption from the first subentry. If the total or subtotal caption is included as a member of the first group, when counting off, the reader's eye tends to note that the first group seems short. To that extent the user is distracted from his purpose which is the meaning of the data, not its mechanics.

c. Disregard question of boldface captions.—Use of boldface captions, as such, has no effect on the above suggestions.

1029. Overrun captions versus reader breaks.—Overrun captions result in one or more “blank lines” appearing across the field—but not in the stub.

Basic questions: Cannot such lines be considered as equivalent to reader breaks? If not, how is the count made in establishing reader-break groups where overruns occur? Should a break be inserted at every “so-many” captions or at every “so-many” lines?

Solution: No completely satisfactory solution is available. In general, where overruns occur, the need for reader breaks is reduced since the overruns serve the purpose *in the field*. However, reader breaks are still needed in the stub to aid the reader in keeping his place there or in locating a given line caption.

General principles.—The following general principles may serve as a guide, keeping in mind that reader breaks are inserted as a positive reading aid to the user, not to establish a physical pattern, as such.

a. Where a few overruns occur.—Insert reader breaks as usual, ignoring the overruns when counting off. Count captions, not lines.

b. Where overruns are frequent.—The basic objective is to avoid solid blocks in either stub or field. The following steps are, in effect, performed simultaneously:

(1) **Examine stub.**—Insert reader breaks at least every 20 lines. Count lines occupied, not captions. Twenty per group is acceptable where many lines are overrun with consequent additional “breaks” in the field.

(2) **Examine field.**—Apply same rules as where overruns are few. That is, solid blocks of 15 entry lines or more should be relieved by inserting reader breaks in the stub, extending through the field.

(3) **Adjust resultant combination of breaks in stub to sensible proportions.**—That is, where rule 2 demands a break to relieve the field, a break inserted according to rule 1 (to relieve the stub) may become unnecessary, or might be better placed; and vice versa. In other words, apply common sense.

c. Where space is at a premium.—Rely heavily upon the overrun lines to break up the rows of figures. Insert reader breaks sparingly in the stub to alleviate the worst of the otherwise solid blocks.

d. Caution: Never insert a reader break between an overrun and its parent entry.

1030. Tie-in of stubs by standard placement of space breaks.—Two general situations arise where the space break may be used to advantage in helping the reader who is working from table to table.

a. Identical stubs.—Where a series of tables is run with identical stubs, sound presentation practice demands consistent placement of space breaks, stub to stub. Two major reasons are: (1) Consistent placement is of distinct service to the user; and (2) their presence on the initial worksheets will facilitate transcription and verification of the data.

It follows that placement of space breaks of this type are an integral part of table design. Within limits, it should be possible, by good planning, to establish

standard breaks for standard classifications which may be used from report to report, as well as within a given report.

Example A. Variation in placement of space breaks between tables can be a serious nuisance:

Table 1	Table 2
All ages.....	All ages.....
Under 5.....	Under 5.....
5 to 9.....	5 to 9.....
10 to 14.....	10 to 14.....
15 to 19.....	15 to 19.....
20 to 24.....	20 to 24.....
25 to 29.....	25 to 29.....
30 to 34.....	30 to 34.....
35 to 39.....	35 to 39.....
40 to 44.....	40 to 44.....
45 to 49.....	45 to 49.....
50 to 54.....	50 to 54.....
55 to 59.....	55 to 59.....
60 to 64.....	60 to 64.....
65 and over.....	65 and over.....

In practice, two major limitations must be noted:

(1) Standardized space breaks must be planned by the table-designer, not left to the mark-up man who cannot take the time to analyze all similar stubs before marking up the first; and

(2) Publication space requirements may make it necessary for the mark-up man to add additional space breaks, or to reduce the number requested. However, where standardized breaks are indicated, they will be followed wherever mechanically possible. Also, the mark-up man, and the reproduction-typing planner, will frequently contribute a little extra thought and effort to well-planned and properly prepared "copy."

b. Interrelated stubs (not identical).—Even where a standard classification scheme is involved, stubs may vary from table to table (sometimes within a table) in terms of condensation or expansion. Mechanical counting off for reader breaks may result in the space breaks falling at one set of points in stub A and at another set in stub B. If they fall at the same points in both stubs, the user (and the transcribers and verifiers in the production work) will be aided in working from one to the other.

For reasons of space, age is used in the examples. However, need for standardization increases with the use of stubs with long captions which are less easy to read at a glance.

Example B-1. Nonstandardized breaks:

Table 1	Table 2	Table 3	Table 4
15 to 24.....	Under 5.....	15 to 19.....	Under 5.....
25 to 34.....	5 to 14.....	20 to 24.....	5 to 9.....
35 to 44.....	15 to 24.....	25 to 29.....	10 to 14.....
45 to 54.....	25 to 34.....	30 to 34.....	15 to 19.....
55 to 64.....	35 to 44.....	35 to 39.....	20 to 24.....
65 to 74.....	45 to 54.....	40 to 44.....	25 to 29.....
75 to 84.....	55 to 64.....	45 to 49.....	30 to 34.....
85 and over..	65 and over..	50 to 54.....	35 to 39.....
		55 to 59.....	40 to 44.....
		60 to 64.....	45 to 49.....
		65 and over..	50 to 54.....
			55 to 59.....
			60 to 64.....
			65 and over..

Example B-2. Standardized breaks:

Table 1	Table 2	Table 3	Table 4
15 to 24.....	Under 5.....	15 to 19.....	Under 5.....
25 to 34.....	5 to 14.....	20 to 24.....	5 to 9.....
35 to 44.....	15 to 24.....	25 to 29.....	10 to 14.....
45 to 54.....	25 to 34.....	30 to 34.....	15 to 19.....
55 to 64.....	35 to 44.....	35 to 39.....	20 to 24.....
65 to 74.....	45 to 54.....	40 to 44.....	25 to 29.....
75 to 84.....	55 to 64.....	45 to 49.....	30 to 34.....
85 and over..	65 and over..	50 to 54.....	35 to 39.....
		55 to 59.....	40 to 44.....
		60 to 64.....	45 to 49.....
		65 and over..	50 to 54.....
			55 to 59.....
			60 to 64.....
			65 and over..

Note: The "standard break" adopted here precedes age 45. The user not only can locate corresponding lines or groups of lines more readily, given the common reference point; also, at a glance, he can grasp difference in stub detail above and below that point.

Sec. 10-D. Use of Boldface and Italic Type (1031-1033)

1031. General.—In letterpress or varitype operations three kinds of type are available for use in tabular work. Avoiding typographical technicalities, these may be described as ordinary (roman) body type, boldface (black letter), and italic. While theoretically the italic may be either boldface or lightface, the boldface italic is rarely used in tabular work of the Bureau of the Census. Materials in the table are normally set in roman. The use of boldface or italic in the stub is largely restricted to the specific situations outlined below.

In offset work, typed entirely by means of the ordinary typewriter, neither boldface nor italic is available except in the case of preprinted table forms. Instead of boldface or italic, reliance must be placed on clarity of indent.

By "preprinted table forms" is meant forms in which the entire table form (sometimes merely the stub) is letterpressed or varityped in advance. The field (cells) is then filled in on the ordinary typewriter. Here, the use of boldface or italic, if used, must necessarily be confined to the stub.

1032. Boldface.—Use of boldface is normally subject to the following restrictions. (See also par. 959.)

a. Limited largely to primary levels of center heads and to additive total lines.—When used to indicate an additive total, not only the stub entry but also numerical and other descriptive entries across the table are set in boldface. In preprinted forms, the boldface must, by necessity, be confined to the stub.

b. Boldface not used to indicate coordinate level of entry.—If a stub entry line of a given classification level is set in boldface, it does not mean that all lines of the same level also should be set in boldface. Only those lines are set in boldface which constitute the summation of the subordinate entries that are presented under them. Thus, if in a given classification additive subentries appear for three out of five members, boldface is used for the three which constitute sub-totals. It is not used for the other two.

c. May be accompanied by horizontal rule.—The use of boldface may be combined with a horizontal rule running under the total, but this combination is reserved for major group totals or for grand totals. For minor totals, the use of boldface alone is usually sufficient. (See also par. 959c.) *Note:* In offset work where boldface is not available, group totals are normally set off by a horizontal rule running across the field but not through the stub.

Example A. Right (primary level of center heads; see also fig. 14, p. 115):

ALL RACES	
Male	
All ages.....	
Under 45 years.....	
45 and over.....	
Female	
All ages.....	
Under 45 years.....	
45 and over.....	
WHITE	
Male	
All ages.....	
Under 45 years.....	
45 and over.....	

Example C-1. Right (used only for summation lines):

ALL RACES		
All ages.....	835	392
Under 15 years.....	60	38
15 to 24 years.....	180	75
Single.....	110	50
All other.....	70	25
25 to 34 years.....	240	110
Single.....	140	52
All other.....	100	58
35 to 44 years.....	120	57
Single.....	40	20
All other.....	80	37
45 and over.....	235	112

Example B. Right (additive total lines):

ALL RACES		
All ages.....	835	392
Under 15 years.....	60	38
15 to 24 years.....	180	75
25 to 34 years.....	240	110
35 to 44 years.....	120	57
45 to 64 years.....	150	72
65 and over.....	85	40
WHITE		
All ages.....	548	235
Under 15 years.....	48	22
15 to 24 years.....	120	51
25 to 34 years.....	180	40
35 to 44 years.....	85	38
45 to 64 years.....	100	56
65 years and over.....	65	29

Example C-2. Wrong (the "under 15" and "45 and over" lines should not be in boldface):

ALL RACES		
All ages.....	835	392
Under 15 years.....	60	38
15 to 24 years.....	180	75
Single.....	110	50
All other.....	70	25
25 to 34 years.....	240	110
Single.....	140	52
All other.....	100	58
35 to 44 years.....	120	57
Single.....	40	20
All other.....	80	37
45 and over.....	235	112

Example D-1. Preferable (space instead of italic):

All ages.....	100
Under 15 years.....	5
15 to 24 years.....	20
25 to 34 years.....	50
35 to 44 years.....	20
45 and over.....	5
21 and over.....	19

Example D-2. Acceptable in a tight table:

All ages.....	100
Under 15 years.....	5
15 to 24 years.....	20
25 to 34 years.....	50
35 to 44 years.....	20
45 and over.....	5
21 and over.....	19

b. Deduction or decrease entries.—Italic is useful to identify an item which is to be subtracted in the computation to reach the group total; to represent a minus item, as such; or to identify a decrease item in a table of increases. Where italic is thus used, the meaning must be made clear in the stub, headnote, or footnote. In general, if a minus sign is used in the cell, the italic is superfluous. Where italic is used to denote deductions or decreases, the stub caption is usually roman since the presence of italic may vary from column to column.

Example E. Deduction item; table headnote reads "[Italic denotes excess of credits (deduct)]":

Total.....	288	43	21
Natural resources.....	4	47	8
Transportation.....	46	37	6
Finance and commerce.....	28	22	21
General government.....	218	19	2

c. Unit-indicators.—Units of quantity may be set either in roman or italic where they appear at the end of stub captions, but roman is preferable, especially where the unit-indicators are brief. (See also pars. 961-966.)

Example F-1. Preferred:

.....	number..
.....	percent..
.....	median..
.....	acres..
.....	bushels..
.....	pounds..

Example F-2. Acceptable:

.....	number..
.....	percent..
.....	median..
.....	acres..
.....	bushels..
.....	pounds..

1033. **Italic.**—The use of italic is limited largely to letterpress and varitype work. At all times, italic is optional, not required, and should be confined to cases where there is a genuine increase in clarity. Within these limits, its use is generally restricted to the following:

a. **Nonadditive items appearing within a group of additive items.**—At times it is desirable to show, within a group of items adding to a total, one or more selected single-line subentries. Again, one may show a line of derived entries or a class overlapping two or more of the items presented. Italic is useful to set off such isolated lines.

Example A. Right:

Cotusa County.....	98
Cotusa township.....	50
Cotusa City.....	23
Williams township.....	48
Williams town.....	8

Example C-1. Acceptable:

Farm families.....	289
Urban-farm.....	8
Nonfarm families.....	423

Example B. Acceptable:

Nevada.....	91,058
Urban.....	34,464
Percent.....	37.8
Rural.....	56,594

Example C-2. Wrong (full distribution shown):

Farm families.....	289
Urban-farm.....	8
Rural-farm.....	281
Nonfarm families.....	423

Chapter 11

THE STUB: STANDARD LISTINGS AND INTER-STUB CLARIFICATION (1101-1144)

Sec. 11-A. Listing Areas (1101-1118)

1101. Standard census areas.—In the publications of the Bureau of the Census, statistics are presented for virtually every type of area—political, social, economic, administrative, demographic, statistical, etc. The method and order of listing of area designations have largely been established by custom, frequently in considerable detail.

This manual discusses a few of the more important practices in respect to certain types of areas used by two or more Subject Divisions¹ of the Bureau. These include Bureau of the Census regions and divisions, States, counties, incorporated places, minor civil divisions, metropolitan districts, census tracts, and urban-rural areas.

Specialized types of areas, used largely by single Subject Divisions, or used only in highly specialized fields, are not discussed in these materials. These include such types as drainage basins, customs districts, Forest Service regions, and cotton regions.

1102. United States.—The term employed in listing the United States as a center head or line caption varies as follows:

a. United States.—The expression most commonly employed. Normally, it signifies continental United States only. It is used wherever the question of possible inclusion of data for territories and possessions is not likely to arise. The definite article "The" is not used.

Example A-1. Right:
UNITED STATES
or
United States.....

Example A-2. Wrong:
THE UNITED STATES
or
The United States.....

b. Continental United States.—Used where it is necessary to emphasize that the given data refer solely to continental United States; that is, that figures for the territories and possessions are not included. "Continental United States" does not include Alaska.

The definite article "The" is not used. The word "continental" is given an initial cap only where it begins the caption.

¹ See footnote, par. 831.

SEC. 11-A

AREAS

PAR. 1102

Example B-1. Right:
CONTINENTAL UNITED STATES
or
Continental United States.....
or
In continental United States.....

Example B-2. Wrong:
THE CONTINENTAL UNITED STATES
or
The Continental United States.....
or
In the Continental United States.....

c. United States, territories, and possessions.—Used where data are included for territories and possessions as well as for continental United States.

Where only the aggregate is shown, with no subentries indicating geographic components, the full statement (United States, Territories, and possessions) is essential where data for all these areas are included.

Where total-line captions are involved and (1) space is at a premium, and (2) the geographic components are shown as subentries so the reader can see clearly that the Territories and possessions are included, the expression "United States, aggregate" may be substituted to save space.

Where one or more, but not all, of the Territories and possessions are included, it is better to use merely "Total" and to footnote (or headnote) to indicate clearly the area covered, as "Includes Puerto Rico and Canal Zone" or "Comprises continental United States, Alaska, and Hawaii."

1103. Regions, divisions, and States.—In the Bureau of the Census the standard stubs showing regions, divisions, and States embody several fundamental features of geographic arrangement. (See fig. 17, p. 160.)

a. Geographic arrangement.—Since many statistics of the Bureau reflect strong geographic differences, a standard arrangement of States is desirable which will permit comparisons of data for States within the same geographic area. The standard arrangement for this purpose is that shown in figure 17. The Nation is first divided into three (or four) regions. The regions are divided, in turn, into geographic divisions, nine in all, with each division composed of a specific group of States.

(1) *Order of listing.*—The list is arranged according to geographic progression. First, the regions are listed, starting with the northeast corner of the Nation, and listing from north to south, then listing the next region to the west. A similar scheme is used for listing component divisions under each region, and for listing component States under each division.

(2) *Alphabetical scheme not employed for area subentries.*—The standard geographic and alphabetical listings should not be mixed. Regions and divisions are always listed geographically, never alphabetically. States may be listed geographically or alphabetically. Where listed geographically, States should be presented under divisional headings or subtotal captions. Where States are listed alphabetically, figures should not be shown for regions or divisions in that table.

Example A-1. Right:

New England.....
Maine.....
New Hampshire.....
Vermont.....
Massachusetts.....
Rhode Island.....
Connecticut.....

Example A-2. Wrong:¹

New England.....
Connecticut.....
Maine.....
Massachusetts.....
New Hampshire.....
Rhode Island.....
Vermont.....

Example A-3. Wrong:¹

The North.....
The South.....
The West.....
Alabama.....
Arizona.....
Arkansas.....

¹ If the figures have a sufficient area pattern to warrant presenting divisional or regional subtotals, the States also should be arranged geographically, not alphabetically.

FIGURE 17.—STUBS FOR REGIONS, DIVISIONS, AND STATES
(See par. 1103)

<p>A. 4-region stub (census-size page)</p> <p>United States.....</p> <p>Regions:</p> <p>The Northeastern States.....</p> <p>The North Central States.....</p> <p>The South.....</p> <p>The West.....</p> <p>The Northeastern States:</p> <p>New England.....</p> <p>Middle Atlantic.....</p> <p>The North Central States:</p> <p>East North Central.....</p> <p>West North Central.....</p> <p>The South:</p> <p>South Atlantic.....</p> <p>East South Central.....</p> <p>West South Central.....</p> <p>The West:</p> <p>Mountain.....</p> <p>Pacific.....</p> <p>New England:</p> <p>Maine.....</p> <p>New Hampshire.....</p> <p>Vermont.....</p> <p>Massachusetts.....</p> <p>Rhode Island.....</p> <p>Connecticut.....</p> <p>Middle Atlantic:</p> <p>New York.....</p> <p>New Jersey.....</p> <p>Pennsylvania.....</p> <p>East North Central:</p> <p>Ohio.....</p> <p>Indiana.....</p> <p>Illinois.....</p> <p>Michigan.....</p> <p>Wisconsin.....</p> <p>West North Central:</p> <p>Minnesota.....</p> <p>Iowa.....</p> <p>Missouri.....</p> <p>North Dakota.....</p> <p>South Dakota.....</p> <p>Nebraska.....</p> <p>Kansas.....</p> <p>South Atlantic:</p> <p>Delaware.....</p> <p>Maryland.....</p> <p>District of Columbia.....</p> <p>Virginia.....</p> <p>West Virginia.....</p> <p>North Carolina.....</p> <p>South Carolina.....</p> <p>Georgia.....</p> <p>Florida.....</p> <p>East South Central:</p> <p>Kentucky.....</p> <p>Tennessee.....</p> <p>Alabama.....</p> <p>Mississippi.....</p> <p>West South Central:</p> <p>Arkansas.....</p> <p>Louisiana.....</p> <p>Oklahoma.....</p> <p>Texas.....</p> <p>Mountain:</p> <p>Montana.....</p> <p>Idaho.....</p> <p>Wyoming.....</p> <p>Colorado.....</p> <p>New Mexico.....</p> <p>Arizona.....</p> <p>Utah.....</p> <p>Nevada.....</p> <p>Pacific:</p> <p>Washington.....</p> <p>Oregon.....</p> <p>California.....</p>	<p>B. 3-region stub (census-size page)</p> <p>United States.....</p> <p>Regions:</p> <p>The North.....</p> <p>The South.....</p> <p>The West.....</p> <p>The North:</p> <p>New England.....</p> <p>Maine.....</p> <p>Middle Atlantic.....</p> <p>East North Central.....</p> <p>West North Central.....</p> <p>The South:</p> <p>South Atlantic.....</p> <p>East South Central.....</p> <p>West South Central.....</p> <p>The West:</p> <p>Mountain.....</p> <p>Pacific.....</p> <p>New England:</p> <p>Maine.....</p> <p>New Hampshire.....</p> <p>Vermont.....</p> <p>Massachusetts.....</p> <p>Rhode Island.....</p> <p>Connecticut.....</p> <p>Middle Atlantic:</p> <p>New York.....</p> <p>New Jersey.....</p> <p>Pennsylvania.....</p> <p>East North Central:</p> <p>Ohio.....</p> <p>Indiana.....</p> <p>Illinois.....</p> <p>Michigan.....</p> <p>Wisconsin.....</p> <p>West North Central:</p> <p>Minnesota.....</p> <p>Iowa.....</p> <p>Missouri.....</p> <p>North Dakota.....</p> <p>South Dakota.....</p> <p>Nebraska.....</p> <p>Kansas.....</p> <p>South Atlantic:</p> <p>Delaware.....</p> <p>Maryland.....</p> <p>District of Columbia.....</p> <p>Virginia.....</p> <p>West Virginia.....</p> <p>North Carolina.....</p> <p>South Carolina.....</p> <p>Georgia.....</p> <p>Florida.....</p> <p>East South Central:</p> <p>Kentucky.....</p> <p>Tennessee.....</p> <p>Alabama.....</p> <p>Mississippi.....</p> <p>West South Central:</p> <p>Arkansas.....</p> <p>Louisiana.....</p> <p>Oklahoma.....</p> <p>Texas.....</p> <p>Mountain:</p> <p>Montana.....</p> <p>Idaho.....</p> <p>Wyoming.....</p> <p>Colorado.....</p> <p>New Mexico.....</p> <p>Arizona.....</p> <p>Utah.....</p> <p>Nevada.....</p> <p>Pacific:</p> <p>Washington.....</p> <p>Oregon.....</p> <p>California.....</p>	<p>C. 3-region stub (document-size page)</p> <p>United States.....</p> <p>Regions:</p> <p>The North.....</p> <p>The South.....</p> <p>The West.....</p> <p>The North:</p> <p>New England.....</p> <p>Maine.....</p> <p>New Hampshire.....</p> <p>Vermont.....</p> <p>Massachusetts.....</p> <p>Rhode Island.....</p> <p>Connecticut.....</p> <p>Middle Atlantic.....</p> <p>New York.....</p> <p>New Jersey.....</p> <p>Pennsylvania.....</p> <p>East North Central.....</p> <p>Ohio.....</p> <p>Indiana.....</p> <p>Illinois.....</p> <p>Michigan.....</p> <p>Wisconsin.....</p> <p>West North Central.....</p> <p>Minnesota.....</p> <p>Iowa.....</p> <p>Missouri.....</p> <p>North Dakota.....</p> <p>South Dakota.....</p> <p>Nebraska.....</p> <p>Kansas.....</p> <p>South Atlantic.....</p> <p>Delaware.....</p> <p>Maryland.....</p> <p>District of Columbia.....</p> <p>Virginia.....</p> <p>West Virginia.....</p> <p>North Carolina.....</p> <p>South Carolina.....</p> <p>Georgia.....</p> <p>Florida.....</p> <p>East South Central.....</p> <p>Kentucky.....</p> <p>Tennessee.....</p> <p>Alabama.....</p> <p>Mississippi.....</p> <p>West South Central.....</p> <p>Arkansas.....</p> <p>Louisiana.....</p> <p>Oklahoma.....</p> <p>Texas.....</p> <p>Mountain.....</p> <p>Montana.....</p> <p>Idaho.....</p> <p>Wyoming.....</p> <p>Colorado.....</p> <p>New Mexico.....</p> <p>Arizona.....</p> <p>Utah.....</p> <p>Nevada.....</p> <p>Pacific.....</p> <p>Washington.....</p> <p>Oregon.....</p> <p>California.....</p>
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b. **Planning pages.**—Standard stubs A and B (fig. 17) are designed to fit on one full census-size² page, set in 6-point type, leaded³ (pronounced "lédéd"). Space breaks are inserted above each region and division subhead. (The leading and space breaks are not shown in fig. 17 since the pages of this manual are document size.) In typewriter-offset work, both where the entire table (including the stub) is typed and where page forms are prepared with a preprinted stub, the leading is normally omitted in order to avoid soft-rolling the platen on the typewriter.

Standard stub C is designed to fit on one full document-size² page, set in 6-point type, solid.³ Frequently, because of space factors, stub C is presented without the region totals. The cross-reference convenience of these standard 1-page stubs is obvious, particularly if a series of such tables appears.

In order to insure 1-page tables of this type, the table-designer should keep in mind that—

- (1) Only one line of data per State is practicable, with no overruns in the stub. In a narrow stub some abbreviation will be needed.
- (2) The table title should be not longer than two lines.
- (3) The boxhead should be held to a maximum of about six lines.
- (4) Headnotes, if any, should be held to not more than two lines.

1104. Regions.—Either a 3-region, or a 4-region, distribution may be used. The difference is that the "The North" in the 3-region grouping becomes "The Northeastern States" and "The North Central States" when the 4-region grouping is used. (See fig. 17.) The composition of "The South" and "The West" is identical in both groupings. The standard order of listing is as follows:

Example A. 3 regions:

United States.....
The North.....
The South.....
The West.....

Example B. 4 regions:

United States.....
The Northeastern States.....
The North Central States.....
The South.....
The West.....

1105. Divisions and States.—List divisions geographically within each region. List States geographically within each division. Alphabetical arrangement of State data is out of place in a table showing data for divisions.

a. **Position of division subtotals.**—Division subtotals may be grouped at the top of the State list, or they may be interspersed; that is, inserted above the appropriate State subentries. In census-size pages, they are usually grouped at the top; in document-size pages, they are usually interspersed.

b. **Division subheads essential.**—If division totals are grouped at the top of the table, division subheads *must also appear* at appropriate points in the State list in order to make the geographic State arrangement intelligible. Where only one line per State is shown, divisional grouping by means of space breaks may seem to obviate the need for division subheads; this is not the case.

² For definition of "census-size" and "document-size," see par. 211.

³ "Leaded" means additional white space (2 points, or 1/64 inch) is left between the lines; a decided aid in reading small type. "Solid" means no additional white space is thus left. Normally, however, a space break appears above each subhead or subtotal line, whether the stub is leaded or solid.

Example A-1. Right (division totals at top):¹

United States.....
 New England.....
 Middle Atlantic.....
 East North Central.....
 West North Central.....
 South Atlantic.....
 East South Central.....
 West South Central.....
 Mountain.....
 Pacific.....
 New England:
 Maine.....
 New Hampshire.....
 Vermont.....
 Massachusetts.....
 Rhode Island.....
 Connecticut.....
 etc.

Example A-2. Right (division totals interspersed):²

United States.....
 New England.....
 Maine.....
 New Hampshire.....
 Vermont.....
 Massachusetts.....
 Rhode Island.....
 Connecticut.....
 Middle Atlantic.....
 New York.....
 New Jersey.....
 Pennsylvania.....
 East North Central.....
 Ohio.....
 Indiana.....
 Illinois.....
 etc.

Example A-3. Wrong (division subheads and grouping needed):

United States.....
 Maine.....
 New Hampshire.....
 Vermont.....
 Massachusetts.....
 Rhode Island.....
 Connecticut.....
 New York.....
 New Jersey.....
 Pennsylvania.....
 Ohio.....
 Indiana.....
 Illinois.....
 Michigan.....
 Wisconsin.....
 Minnesota.....
 etc.

¹ Preferred for census-size pages.

² Preferred for document-size pages.

c. Incomplete listings of States under division heads.—Where not all States are shown under the division subheads (or subtotal lines), the reader should be warned that the list is incomplete. This situation commonly arises where the information was not obtained or tabulated for certain States. Here, two choices are available: (1) Run the list of States in full with appropriate footnotes for the States for which information is lacking, as in example B-1. (2) If this is not desired, omit the listing for such States and modify the divisional head by prefixing with "In . . .," as in example B-2.

Example B-1. Right:

Middle Atlantic.....
 New York.....
 New Jersey.....
 Pennsylvania.....
 East North Central.....

Example B-2. Right:

In Middle Atlantic.....
 New York.....
 Pennsylvania.....
 In East North Central.....

Example B-3. Undesirable (no warning):

Middle Atlantic.....
 New York.....
 Pennsylvania.....
 East North Central.....

¹ Information not available (or "Not included in survey").

1106. Divisions.—List the nine census divisions geographically (unless rank order is desired), as follows:

New England.....
 Middle Atlantic.....
 East North Central.....
 West North Central.....
 South Atlantic.....
 East South Central.....
 West South Central.....
 Mountain.....
 Pacific.....

1107. States.—May be listed geographically, alphabetically, or in rank order in terms of some characteristic. The complete list must include the District of Columbia; otherwise the State totals will not add to the total for the United States.

Where States are listed geographically, divisional subheads, or their equivalent, should appear above each divisional grouping,

irrespective of whether division totals are shown in the table. (For arrangement with division totals, or with totals for regions, divisions, and States, see fig. 17, p. 160.)

Stub A. Geographical:

United States.....
 New England:
 Maine.....
 New Hampshire.....
 Vermont.....
 Massachusetts.....
 Rhode Island.....
 Connecticut.....
 Middle Atlantic:
 New York.....
 etc.

Stub B. Alphabetical:

United States.....
 Alabama.....
 Arizona.....
 Arkansas.....
 California.....
 Colorado.....
 Connecticut.....
 Delaware.....
 Dist. of Columbia.....
 Florida.....
 etc.

a. Arrange geographically where—

- (1) Significant geographic differences are reflected in the data;
- (2) Comparisons are intended with tables with a geographic arrangement; or
- (3) The interest of users is most likely to be concentrated on comparisons of data for neighboring States.

b. Arrange alphabetically where—

- (1) No important geographical differences are reflected;
- (2) The primary interest is likely to lie in data for individual States, thereby setting a premium on the ability to locate individual States in the list; or
- (3) Comparisons are most likely to be made of data for noncontiguous States.

1108. Counties.—List alphabetically within each State, except where rank order is desired. (In Louisiana, the term "parish" is used instead of county.)

a. Coextensive counties and cities.⁴—A county is coextensive with a city when the two areas have identical boundaries. Four such cases existed in 1940, involving San Francisco, Denver, Philadelphia, and New Orleans. The political divisions thus "paired" may or may not have identical names. In the cases of San Francisco and Denver, the county and city, in each instance, constitute a single political entity; as, for example, "The City and County of San Francisco." In Philadelphia and New Orleans, county and city governments exist side-by-side.

San Francisco city and County
 Philadelphia city and Philadelphia County
 New Orleans city and Orleans Parish
 Denver city and Denver County

Basic treatment.—Show the data for the given political unit at the point in the stub where it would normally fall, even though this may mean complete duplication of figures within the same table or in different tables. Thus, in a county table show data for Philadelphia County; in a city table show data for Philadelphia city. In a table presenting data for both counties and cities, show the Philadelphia figures twice. This procedure is most convenient for the user. Since the number of such paired areas is few, the space problem is rarely serious.

(1) **Individual tables for each county or city.**—This is the only instance where the space factor is likely to be serious.

⁴ For the special case of New York city, see par. 1103b.

Where space permits: Repeat in full under the appropriate title for each area. For example, show the entire table, appropriately titled as being for Orleans Parish or for San Francisco County; then show the entire table again, appropriately titled as being for the city of New Orleans or for the city of San Francisco. This is particularly convenient for the reader when a long series of county tables, arranged alphabetically by county, is followed by a series of city tables, arranged alphabetically by city.

Where space forbids repetition: In the county series, insert the table for the area as a county. This will insure that the sum of entries in the county tables will equal the total entries for the State. In the city series, insert the table title with a headnote as indicated below; omit the table proper. The city area is thereby accounted for at the point where the reader would tend to look for city figures.

Example:

TABLE 5.—POPULATION CHARACTERISTICS FOR DENVER COUNTY
(Give table in full.)

TABLE 10.—POPULATION CHARACTERISTICS FOR CITY OF DENVER

[Denver city and county are coextensive; hence figures for Denver city are the same as shown for Denver County in table 5]

(Omit remainder of table.)

(2) Tables with county and city stubs.—List with full data as a county; repeat in full as a city.

Example A. Where cities are listed under county subtotals:

Denver County.....	1,282	275	164	629
Denver city.....	1,282	275	164	629
Orleans Parish.....	3,124	469	381	928
New Orleans city.....	3,124	469	381	928

Example B. Where counties and cities are listed in separate groups:

COUNTIES		CITIES OF 25,000 OR MORE	
Custer.....	70	Colorado Springs.....	862
Delta.....	65	Denver.....	1,282
Denver.....	1,282	Pueblo.....	463

b. Counties within a city (New York city).—In 1940 New York city represented the sole instance where a city was coextensive with a group of counties. Furthermore, each included county is itself coextensive with a specific borough. In three cases, the county and borough have the same name; in two cases, the names are different, as follows:

Bronx County.....	Bronx borough
Kings County.....	Brooklyn borough
New York County.....	Manhattan borough
Queens County.....	Queens borough
Richmond County.....	Richmond borough

(1) County tables.—Each county should be included individually in the county list. If desired, each may be footnoted "Part of New York city"; or ". . . borough, part of New York city," specifying the appropriate borough name.

Where cities or minor civil divisions are listed by counties, include each county in its appropriate alphabetical position in the full list (not in a special group) and handle as follows:

Minor civil division

Albany County.....	221,315
Albany city.....	180,577
Berne town.....	1,325
Bethlehem town.....	9,732
Coeymans town.....	4,536
Ravena village.....	1,810
Bronx County.....	1,394,711
Bronx borough (part of New York city) ¹	1,394,711
Broome County.....	165,749
Barker town.....	1,223
Binghamton city.....	78,309
Binghamton town.....	1,576
Chenango town.....	3,265
Colesville town.....	2,652

Minor civil division

Jefferson County—Con.	
Philadelphia town.....	1,372
Philadelphia village.....	722
Rodman town.....	356
Rutland town.....	1,622
Black River village (part).....	323
Theresa town.....	1,675
Kings County.....	2,698,285
Brooklyn borough (part of New York city) ¹	2,698,285
Lewis County.....	22,815
Croghan town.....	2,557
Croghan village.....	391

¹ For total figures for New York city, see table —.

(2) County names versus borough names.—In general, if a table calls specifically for counties, list the component areas of New York city as counties, using the county names. Show the New York city total figures in footnotes, not in the county list.

Where city data are the main consideration, list the component areas of New York city as boroughs under their borough names, arranged alphabetically under the listing for the city as a whole.

c. Independent cities.—Three States (Maryland, Missouri, and Virginia) contain "independent cities"; that is, cities independent of county jurisdiction.

In 1940 there were 26 such independent cities in the United States; 1 each in Maryland and Missouri and 24 in Virginia. Each must be specifically included, and shown separately, in any "county listing" which is intended to distribute data for the entire State. In States with independent cities the summation of county figures alone will not equal the State total.

(1) In Maryland and Missouri.—When listing Maryland counties, include "Baltimore city" as well as "Baltimore County." The city is not a part of the county.

Similarly, St. Louis city, Missouri, is independent of St. Louis County. Therefore, when listing the counties of Missouri, both areas must be shown; the one as "St. Louis city," the other as "St. Louis County."

Examples:

A. Maryland

Allegany.....
Anne Arundel.....
Baltimore city.....
Baltimore County.....
Calvert.....

B. Missouri

St. Clair.....
St. Francois.....
St. Louis city.....
St. Louis County.....
Ste. Genevieve.....

(2) In Virginia.—Because of the large number of independent cities (24) in this State, and because several Virginia counties include the word "City" as part of the county name, separate grouping is recommended for the independent cities.

Separate groups.—Recommended. Arrange the independent cities in a separate group following the alphabetical listing of counties.

Interspersed.—Acceptable. Where both counties and independent cities are merged into a single alphabetical list, include area designation after each.

This reduces confusion in the case of counties which include "City" as part of the county name, such as "Elizabeth City County" which is *not* a city. As a *minimum*, "County" may be omitted from names of all counties except those which include "City" as part of the county name; however, be sure to specify "County" after such names. Thus, list "Elizabeth City County," never merely "Elizabeth City," even though the stub boxhead specifies "County."

The term "city" is given an initial cap where a part of a county or city name; it is completely lower cased (small letters) where it is appended solely as the area designation.

Example C-1. Recommended:

County or independent city	
Virginia.....	
COUNTIES	
Accomack.....	
Albemarle.....	
Alleghany.....	
Amelia.....	
* * * * *	
Dickerson.....	
Dinwiddie.....	
Elizabeth City County.....	
Essex.....	
* * * * *	
INDEPENDENT CITIES	
Alexandria.....	
Bristol.....	
Buena Vista.....	
* * * * *	

Example C-2. Acceptable:

County or independent city	
Virginia.....	
COUNTIES	
Accomack County.....	
Albemarle County.....	
Alexandria city.....	
Alleghany County.....	
* * * * *	
Botetourt County.....	
Bristol city.....	
Brunswick County.....	
* * * * *	
Buena Vista city.....	
Campbell County.....	
Caroline County.....	
* * * * *	
Dinwiddie County.....	
Elizabeth City County.....	
Essex County.....	
* * * * *	

d. Yellowstone National Park.—This National Park, geographically located within the limits of Idaho, Montana, and Wyoming, is independent of county organization; hence, must be included separately in listing counties in these three States; otherwise the State total will not be represented fully. In each instance, the listing should read "Yellowstone National Park¹ (part)" followed by the statistics for the given part. The footnote should read "Geographically located within limits of Idaho, Montana, and Wyoming." A total for the park as a whole is usually added to the footnote; such footnotes rarely provide detailed distributions for the park as a whole.

1109. Cities, towns, villages, places, etc.: General.—Cities, towns, villages, incorporated places, urban places, etc., are normally listed alphabetically unless rank order is required. Treatment of State designation is as follows:

a. Abbreviation of State names.—State names should always be abbreviated when included as part of individual listings for cities, towns, villages, etc. This places the emphasis upon the place names and focuses the reader's attention upon them.

Right:	Undesirable:
Albany, N. Y.....	Albany, New York.....
Chicago, Ill.....	Chicago, Illinois.....
Denver, Colo.....	Denver, Colorado.....
Erie, Pa.....	Erie, Pennsylvania.....
Lowell, Mass.....	Lowell, Massachusetts.....

b. When to include State names.—Where the materials are not arranged under State headings, and the listing includes places in various States, the State name

(abbreviated) should be added to each individual listing if the list includes one or more cities with a population of less than 500,000.

Note: All listings (not under State headings for), and all references to, the following cities should invariably carry the appropriate State names to avoid confusion. This list is comprised solely of cities of 50,000 inhabitants or more with duplicating names.

Charleston, S. C.	Kansas City, Kans.	Springfield, Ill.
Charleston, W. Va.	Kansas City, Mo.	Springfield, Mass.
Columbus, Ga.	Portland, Maine	Springfield, Mo.
Columbus, Ohio	Portland, Oreg.	Springfield, Ohio
		Washington, D. C. ¹

¹ To avoid confusion with Washington State.

c. Arrangement under State heads.—Lists of cities which include one or more with a population of less than 50,000 are best arranged under State headings. Those restricted to cities of 50,000 inhabitants or more may be listed either in a single alphabetical group or arranged alphabetically by State.

1110. Cities, towns, etc.: Size groups.—Frequently, cities, towns, villages, etc., are listed in groups classified by "size"; that is, in groups according to number of inhabitants. Some of the more common groupings are given below with pertinent notes as to listing.

a. Cities of 1,000,000 inhabitants or more.—Usually presented in a single alphabetical listing, irrespective of State of location. State names are omitted as unnecessary, except that "D. C." is always specified for the city of Washington.

b. Cities of 500,000 inhabitants or more.—Same procedure as for cities of 1,000,000 inhabitants or more.

c. Cities of 100,000 inhabitants or more.—One of the best-known city stubs of the Bureau of the Census. The cities are alphabetically arranged in a single list. State names (abbreviated) appear after each place name. This stub is planned for a 1-page presentation (census-size), assuming one line per area.

d. Urban places of 50,000 inhabitants or more.—Usually presented as "urban places" rather than "cities" since not all urban areas in this size group are cities. In 1940, one township, one town, one village, and one county (Arlington County, Va.) were included. May be arranged—

(1) *In a single alphabetical list*, with State name (abbreviated) after each place name. On a census-size page, this stub can be standardized to run two tables to each five pages, with each city located at the same point on the page in alternate tables. This standard arrangement is useful when a series of these tables is desired.

(2) *Alphabetically under State heads.*—States are usually arranged alphabetically.

e. Urban places of 25,000 inhabitants or more.—List in alphabetically arranged groups under State headings. States also are arranged alphabetically.

f. Other city-size groups.—Groupings involving cities or places with fewer than 25,000 inhabitants are normally arranged in State groups. Common groups of this type are:

Urban places of 10,000 inhabitants or more
 Urban places of 10,000 to 25,000 inhabitants
 Urban places of 5,000 to 10,000 inhabitants
 Urban places of 2,500 to 5,000 inhabitants
 Rural incorporated places (that is, all incorporated places with fewer than 2,500 inhabitants)
 Incorporated places of 1,000 to 2,500 inhabitants
 Incorporated places of less than 1,000 inhabitants

1111. Cities, towns, etc.: Specifying area designation.—The determination of the need for inclusion of area designation such as city, town, village, etc., is a problem frequently encountered. No universally applicable rule can be laid down, but the following may prove helpful.

a. Single specification in stub box.—Where a single area designation is specified in the stub box, places of that type do not require individual designation, but places of other types do. That is, if the term "CITY" appears alone in the stub box, the term "city" need not be placed after each city name, but any village, town, etc., listed should be specified as such.

Example A:

CITY

Allen.....
Braden.....
Canton village.....
Dort.....
Fallon town.....
Grayson.....

b. Dual specification in stub box.—Where two area types are indicated in the stub box, places of neither type require individual area designation, but it may be inserted for the minority group if desired. All other types should be specified.

Example B-1. Right:

CITY OR TOWN

Allen.....
Braden.....
Canton village.....
Dort.....
X Fallon.....
Grayson.....

Example B-2. Right:

CITY OR TOWN

Allen.....
Braden.....
Canton village.....
Dort.....
Fallon town.....
Grayson.....

c. Generalized area reference in stub box.—This obviates specific need for individual area designation. However, if one objective is to provide specific description in this respect, the generalized reference does not prevent detailed description.

Example C-1. Right:

URBAN PLACE

Allen.....
Braden.....
Canton.....
Dort.....
Fallon.....
Grayson.....

Example C-2. Right:

URBAN PLACE

Allen city.....
Braden city.....
Canton village.....
Dort city.....
Fallon town.....
Grayson city.....

d. Exceptional cases.—Wherever the area designation for an individual place is beyond normal expectation, or reflects any unusual situation, always specify against the place name.

(1) *Beyond normal expectation.*—*Example:* In a listing of urban places in Virginia, Arlington County should always be listed in full, not merely as "Arlington," since the presence of a county in a city or urban-place list is beyond normal expectation. (See par. 1110d, above.)

(2) *Confusion of area names.*—*Example:* Baltimore city and St. Louis city, when they appear in a county listing, should have "city" specified to avoid confusion with the counties of the same names of which these cities are not a part. (See par. 1108c.)

1112. Minor civil divisions.—The Bureau of the Census applies the general term "minor civil division" to the primary political divisions into which counties are divided (townships, districts, precincts, etc.). The designation of these divisions varies from State to State; a few States have more than one type. Ordinarily, incorporated places form secondary divisions of the minor civil divisions in which located. In some States, however, all or some of the incorporated places themselves constitute primary divisions of the counties; and the larger cities often contain all or part of several minor civil divisions. For the situation in a particular State, and for a map of each State showing minor civil divisions, see *Population*, volume I, 1940 (or of the most recent decennial census).

a. Order of listing.—The order of listing (within counties) depends, in part, upon whether the minor civil divisions in the given State are named or numbered.

(1) *Named.*—Arrange alphabetically.

(2) *Numbered.*—Arrange numerically, beginning with the smallest number.

(3) *Named and numbered.*—In some States both names and numbers are assigned. Sometimes both appear for individual minor civil divisions. Where some are numbered and others are named, list first those which have names, followed by those that are numbered. If individual areas have both names and numbers (Township 4, Menango; Ranton, District 5), arrange according to whichever comes first in the area designation.

b. Interspersing incorporated places.—At times, it is necessary to list both minor civil divisions and incorporated places in a single stub, showing full inter-relationship. The method involved is too complex for detailed coverage here; see table 4 for the given State in *Population*, volume I, 1940, for procedure.⁵ However, several general rules may be mentioned:

(1) *Incorporated places entirely within one m. c. d.*—List as subentry under m. c. d. name; in letterpress work, use italics unless "Remainder of m. c. d." is shown separately.

Example A-1:

Fort Osage township.....	2,575	Kaw township.....	399,178
Buckner city.....	671	Kansas City.....	399,178
Leasy town.....	126		

(2) *Split between m. c. d.'s.*—Under the first m. c. d. (in order of listing) in which partly located, list the incorporated-place total, followed by specified parts in that m. c. d. and in other m. c. d.'s. Under each of the other m. c. d.'s of which a part, list only that part within that m. c. d. (For example, see below.)

(3) *Split between counties.*—Where split between counties, list the incorporated-place total under first affected m. c. d. in each county. For handling m. c. d. make-up of portion within each county, follow rule 2, above.

⁵ Description of method used in 1940 and many earlier censuses. Subject to change in 1950 census reports.

Example A-2: In the following example, illustrating rules 1 to 3, note treatment for Neck City, Joplin city, and Cartersville city, designated in the margin as (a), (b), and (c), respectively. This is an extract from Missouri table 4, pp. 590, 592, *Population*, volume I, 1940.

<p>(a) Jasper County..... Duval township..... Neck City, total..... In Duval twp..... In Mineral twp..... Galena township..... (b) Joplin city, total..... In Galena twp..... In Joplin twp..... In Newton County..... Jackson township..... * * * * * Joplin township..... (c) Cartersville city, total..... In Joplin twp..... In Mineral twp..... (b) Joplin city (part)..... Webb City..... Lincoln township..... * * * * *</p>	<p>Mineral township..... Alba city..... Cartersville city (part)..... Neck City (part)..... Oronogo city..... Purcell city..... Preston township..... * * * * * Newton County..... Benton township..... Berwick township..... Buffalo township..... Dayton township..... * * * * * Shoal Creek township..... (b) Joplin city, total..... In Newton County..... In Jasper County..... Van Buren township..... * * * * *</p>
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1113. Urban-rural areas.—This is a classification reflecting, broadly, density of population. For Census of Population purposes in 1940, the urban area is made up, for the most part, of cities and other incorporated places having 2,500 inhabitants or more. The remaining territory is, in general, classified as rural. The population of the rural area may be further divided into two subclasses: "Rural-farm" and "Rural-nonfarm," on the basis of farm residence. The total farm population is not exactly the same as the rural-farm population, however, because of the small number of persons living on farms located within urban areas; that is, the "urban-farm" population. Because of the small numbers involved, figures for the urban-farm population are rarely shown separately.

Detailed description of the urban-rural classification and its application in the several States may be found in *Population*, volume I, 1940 (or of the most recent decennial census).

a. Order of listing and placement of hyphen.—Except for special purposes, the order of listing is as indicated below. The "rural-nonfarm" and "rural-farm" categories may, of course, be shown under a rural total. However, where both subcategories appear, the rural total usually is omitted.

Note placement of hyphen in the expressions "rural-nonfarm" and "rural-farm"; erroneous placement or omission in copy constitutes a serious nuisance at times, particularly since the error is frequently overlooked until the material is received in proof.

Example A. Listing order:

<i>Right</i>	<i>Wrong</i>
Urban	Urban
Rural-nonfarm	Rural-farm
Rural-farm	Rural-nonfarm

Example B. Hyphen placement:

<i>Right</i>	<i>Wrong</i>
Rural-nonfarm	Rural non-farm
Rural-farm	Rural nonfarm
	Rural farm

b. Urban under special rule.—In all tables which present statistics for individual urban areas, each place classified as urban under special rule should be plainly indicated. This should be done either by a footnote; or in a headline if a standard reference symbol, such as an asterisk (*), is used. See *Population*, vol. I, 1940, for places classed as "urban under special rule" in the several States.

1114. Metropolitan districts.⁶—A metropolitan district is not a political unit, but an area including all of the thickly settled territory in and around a city or group of cities. It tends to be a more or less integrated area with common economic, social, and, often, administrative interests.

For the 1940 census, a metropolitan district⁶ was set up in connection with each city of 50,000 inhabitants or more, two or more such cities (and their environs) sometimes being in one district. The general plan was to include in the district, in addition to the central city or cities, all adjacent and contiguous minor civil divisions or incorporated places having a population of 150 or more per square mile.

a. System of naming.—Metropolitan districts are named according to the name of the central city, as "Salt Lake City Metropolitan District." If there are two or more central cities, the names are combined, with the largest city named first, as "Norfolk-Portsmouth-Newport News Metropolitan District." However, only those cities are named in the title which are considered "central" cities; this does not necessarily include all cities of 50,000 or more within the given district. Thus, Gary, Ind., is not mentioned in the title of the district in which it is located, the Chicago Metropolitan District.

b. Use of State names.—Where the district is specified in full, the State name is rarely included, as "Buffalo-Niagara Metropolitan District." However, when confusion is likely, specify the State (abbreviated). Two types of cases appear where the State name is essential:

(1) *Name includes cities in more than one State.*—List the State name (abbreviated) after each city name, as "Huntington, W. Va.—Ashland, Ky." If the area designation is added, place the State names in parentheses, as "Huntington (W. Va.)—Ashland (Ky.) Metropolitan District."

(2) *Name is one that is duplicated in list of major cities.*—References to metropolitan districts of the following cities should always specify State name.

Charleston, S. C.	Kansas City, Kans.	Springfield, Ill.
Charleston, W. Va.	Kansas City, Mo.	Springfield, Mass.
		Springfield, Mo.
		Springfield, Ohio
Columbus, Ga.	Portland, Maine	
Columbus, Ohio	Portland, Oreg.	

(3) *Washington, D. C., Metropolitan District.*—Always specify "D. C." in referring to the Washington, D. C., Metropolitan District.

⁶ Two additional related areas may be noted: The *metropolitan area* and the *metropolitan county*. Whereas the metropolitan *district* is drawn on minor civil division lines, thereby including parts of counties, the metropolitan *area* is drawn on county lines—that is, either the entire county is included in the area or it is omitted completely. The basic unit of the metropolitan district is the minor civil division; that of the metropolitan area is the "metropolitan county."

For a discussion of the relationship between "metropolitan districts," "metropolitan areas," and "metropolitan counties," see Bureau of the Census, *County Data Book*, A Supplement to the Statistical Abstract of the United States, Washington, 1947.

At the time of going to press, work was being completed by an Interdepartmental Committee which is establishing the "Standard Metropolitan Area" as a statistical area recommended for use by all governmental agencies to take the place of the various areas described above, and also of industrial areas and labor-market areas. For principles adopted as a guide, see mimeographed statement, "Standard Metropolitan Area Definitions," issued by Bureau of the Budget, Executive Office of the President (undated). Specific details of presentation will be determined after work of this committee has been completed.

c. **Use of hyphen.**⁷—As a matter of expedience, the hyphen (-) is used instead of the dash (—) to separate the names of the central cities when more than one such name appears in the district title. *Exception:* Use the dash (—) wherever—

- (1) The title includes a city name which is itself hyphenated.
- (2) The title includes State names.

Example A-1. Right:

SCRANTON—WILKES—BARRE METROPOLITAN DISTRICT.
 DAVENPORT (IOWA)—ROCK ISLAND—MOLINE (ILL.) METROPOLITAN DISTRICT
 KANSAS CITY (MO.)—KANSAS CITY (KANS.) METROPOLITAN DISTRICT
 KANSAS CITY, MO.—KANSAS CITY, KANS., METROPOLITAN DISTRICT

Example A-2. Wrong:

SCRANTON-WILKES-BARRE METROPOLITAN DISTRICT
 DAVENPORT (IOWA)-ROCK ISLAND-MOLINE (ILL.) METROPOLITAN DISTRICT
 KANSAS CITY (MO.)-KANSAS CITY (KANS.) METROPOLITAN DISTRICT
 KANSAS CITY, MO.-KANSAS CITY, KANS., METROPOLITAN DISTRICT

d. **Order of listing.**—Since many metropolitan districts are located in two or more States, the usual order of listing is alphabetical by district name in a single listing for the United States.

e. **Inclusion in State reports or under State headings.**—Districts located in two or more States are subject to special rulings depending upon the purpose of the presentation. A general rule, subject to modification as needed, is to place data for a given district under the heading of the State in which the largest central city is located.

Exception: The Davenport (Iowa)—Rock Island—Moline (Ill.) Metropolitan District, in the 1940 Population Census Reports, was placed under both Iowa and Illinois headings since the largest central city (Davenport) is in Iowa, but the combined population of the other two central cities (Rock Island and Moline), which are in Illinois, was larger than that of Davenport.

1115. Census tracts.—Census tracts are small areas into which certain large cities, and sometimes their adjacent areas, are subdivided for statistical and local administrative purposes through cooperation with a local committee in each case.

a. **Order of listing.**—Census tracts are usually numbered; some have prefix or suffix letters.

- (1) **Numbered.**—List in numerical order.
- (2) **Suffix letters.**—Arrange first in numerical order with those of each number grouped together. *Within* each number group, arrange the tracts alphabetically by suffix letter.
- (3) **Prefix letters.**—Where prefix letters are not directional in character, arrange first alphabetically by prefix letter. *Within* each prefix-letter group, arrange the tracts in numerical order.

Where prefixes are directional in character, arrange first according to the compass points; that is, start with prefix letter "N" (for North), and moving clockwise (N, E, S, W), group all tracts with the same prefix together. *Within* each prefix-letter group, arrange the tracts in numerical order.

⁷ Technically, the en-dash, not the hyphen, is used here in letterpress (type-set) material.

1116. Area names as total-line captions.—Area names are commonly used as total and subtotal line captions, in place of, or in addition to, the term "Total."

a. **Table for single area.**—Where all data in the table are for a single area, and the name of the area is specified in the area segment of the title (or in the running head of the page), the grand total line may be generalized, as—

The State.....	The metropolitan district.....
The city.....	The county.....

b. **Table with areas listed in stub.**—Where areas are listed in the stub, each with its own block of subentries, the name of the area may be inserted in place of "Total," or of "All classes," etc., wherever this will not abuse its function as a total line. This saves space since otherwise it is necessary to insert each area name as a centered head.

Alabama.....	Akron, Ohio.....
White.....	White.....
Negro.....	Negro.....
Other races.....	Other races.....
Arizona.....	Albany, N. Y.....
White.....	White.....
Negro.....	Negro.....
Other races.....	Other races.....

c. **Combining area name with "Total."**—Here the question arises whether the word "total" should be placed first (Total, Alabama) or last (Alabama, total) in the given caption. The same principles apply as discussed in paragraph 957, "Placement of 'Total' in combination with other wording."

1117. Spelling of area names.—Meticulous care is essential in spelling area names. Normal rules of spelling do not apply. Names pronounced the same way may be spelled differently in different States and within the same county or in different counties in the same State.

Most Bureau of the Census tables are prepared under standard operating procedures which tend to avoid incorrect spellings. However, constant watchfulness, and verification when the slightest doubt arises, will sometimes catch errors in materials that presumably have already been verified carefully. Special care is required for tables prepared and typed in offices of analysts where elaborate verification procedures are not employed.

The Geographer of the Bureau is the final authority for spelling of area names in statistical tables of the Bureau of the Census.

For general purposes, reference is suggested to *Population*, vol. I, of the most recent decennial census, since the spelling shown there is the spelling provided by the Geographer as correct *at the time the volume went to press*. The Geographer should always be consulted for the most recent information.

Finally, the United States Postal Guide, commercial atlases, and dictionaries should *not* be relied upon for area-name spellings. The Postal Guide is the authority for the spelling of post-office names. Post-office names are not always spelled the same way as the legal

name of the community or area in which the post office is located or which it serves. Thus, the post office in San Buenaventura, Calif., is called Ventura; the post office in Boise City, Idaho, is called Boise.

The following observations and examples illustrate the problems of area-name spelling and the pitfalls commonly encountered. Lists of names shown are illustrative only; they are not comprehensive since they cover only a few of many similar cases.

a. Same county, different spellings of areas.—Following are examples:

In Alabama (Cherokee County), Centre town is located in Precinct 6, Center.

In Kansas, Salina city is in Saline County.

In North Dakota (Bottineau County), it is Newburg village but Newborg township.

b. Same State, different counties.—Following are examples:

In Ohio, it is Greene township in Clark and Trumbull counties, but Green township in other Ohio counties.

In South Dakota, it is Carlisle township in Brown County, but Carlyle township in Beadle County; it is Linn township in Hand County, Lynn in other counties, and Lien township in Roberts County; it is Clare township in Moody County, but Claire City town in Roberts County.

c. County spellings.—The following list of similar county names is by no means complete:

Aiken in South Carolina	Carver in Minnesota
Aitkin in Minnesota	Carter in all others
Allegany in Maryland and New York	Cheboygan in Michigan; Sheboygan in Wisconsin
Alleghany in North Carolina and Virginia	Clarke in Alabama, Georgia, Iowa, Mississippi, and Virginia
Allegheny in Pennsylvania	Clark in all others
Andrew in Missouri	Coal in Oklahoma
Andrews in Texas	Cole in Missouri
Aransas in Texas	Coles in Illinois
Arkansas in Arkansas	Coffee in Alabama, Georgia, and Tennessee
Baca in Colorado; De Baca in New Mexico	Coffey in Kansas
Baker in Florida, Georgia, and Oregon	Cook in Georgia, Illinois, and Minnesota
Banner in Nebraska	Cooke in Texas
Bonner in Idaho	Davidson in North Carolina and Tennessee
Barber in Kansas	Davison in South Dakota
Barbour in Alabama and West Virginia	Davie in North Carolina
Barren in Kentucky	Davies in Indiana, Kentucky, and Missouri
Barron in Wisconsin	Davis in Iowa and Utah
Brevard in Florida; also—	Dickenson in Virginia
Broward in Florida	Dickinson in Iowa, Kansas, and Michigan
Brooke in West Virginia	Dickson in Tennessee
Brooks in Georgia and Texas	Dixon in Nebraska
Brown in all States	Douglas in all States
Bulloch in Georgia	Forrest in Mississippi
Bullock in Alabama	Forest in all others
Burnet in Texas	Glascock in Georgia
Burnett in Wisconsin	Glasscock in Texas
Callaway in Missouri	
Calloway in Kentucky	
Cannon in Tennessee	
Canyon in Idaho	

Glenn in California	Ouachita in Arkansas and Louisiana;
Glynn in Georgia	Washita in Oklahoma; Wichita in Kansas and Texas
Green in Kentucky and Wisconsin	Park in Colorado, Montana, Wyoming
Greene in all others	Parke in Indiana
Greensville in Virginia	Pottawatomie in Kansas and Oklahoma
Greenville in South Carolina	Pottawattamie in Iowa
Hamblen in Tennessee	Prince George in Virginia
Hamlin in South Dakota	Prince Georges in Maryland
Harding in New Mexico and South Dakota	St. Francis in Arkansas
Hardin in all others	St. Francois in Missouri
Harford in Maryland	St. Mary in Louisiana
Hartford in Connecticut	St. Marys in Maryland
Hayes in Nebraska	Sanders in Montana
Hays in Texas	Saunders in Nebraska
Hendry in Florida	Sheboygan in Wisconsin; Cheboygan in Michigan
Henry in all others	Smyth in Virginia
Highland in Ohio and Virginia	Smith in all others
Highlands in Florida	Stafford in Kansas and Virginia
Huntingdon in Pennsylvania	Strafford in New Hampshire
Huntington in Indiana	Stanley in South Dakota
Johnston in North Carolina and Oklahoma	Stanly in North Carolina
Johnson in all others	Stark in Illinois, North Dakota, and Ohio
Kanabec in Minnesota	Starke in Indiana
Kennebec in Maine	Stevens in Georgia, Oklahoma, and Texas
Kearney in Nebraska	Stevens in Kansas, Minnesota, and Washington
Kearny in Kansas	Storey in Nevada
Kimball in Nebraska	Story in Iowa
Kimble in Texas	Terrell in Georgia and Texas
King in Texas and Washington	Tyrrell in North Carolina
Kings in California and New York	Tooele in Utah
Laurens in Georgia and South Carolina	Toole in Montana
Lawrence in all others	Uinta in Wyoming
Lea in New Mexico	Uintah in Utah
Lee in all others	Vermilion in Illinois and Louisiana
Leflore in Mississippi	Vermillion in Indiana
Le Flore in Oklahoma	Wabash in Illinois and Indiana
Linn in Iowa, Kansas, Missouri, and Oregon	Wabasha in Minnesota
Lynn in Texas	Warrick in Indiana
Loudon in Tennessee	Warwick in Virginia
Loudoun in Virginia	Washita in Oklahoma; Wichita in Kansas and Texas; Ouachita in Arkansas and Louisiana
Manatee in Florida	Woods in Oklahoma
Manistee in Michigan	Wood in all others
Merced in California	Wyandot in Ohio
Mercer in all others	Wyandotte in Kansas
Morton in Kansas and North Dakota;	
Norton in Kansas	
Muscogee in Georgia	
Muskogee in Oklahoma	

1118. Transcribing and proofreading of area names.—Area names should never be listed without reference to an authoritative Bureau of the Census source. They should always be verified after each typing or transcription by a careful *spelling out letter by letter*.

Sec. 11-B. Listing Time Periods (1121-1124)

1121. General.—Greater precision in statement of time periods is necessary in the table stub than in table titles. (See par. 364.) Even here, however, exact specification frequently gives way to conventionalized practices, as follows:

a. Regular census dates.—When reference is to regular census dates, such as those for the Censuses of Population, Agriculture, etc., specification of the year is generally sufficient except—

(1) Where the difference between census dates may affect comparisons because of seasonal factors or for other reasons.

(2) In introductory summary tables, where it is desirable to include the exact effective date of the census as a matter of record.

Usual practice	Only where essential
1940.....	1940 (April 1).....
1930.....	1930 (April 1).....
1920.....	1920 (January 1).....
1910.....	1910 (April 15).....

b. Regular census periods.—For statistics which cover a regular census period (rather than a given date) as in the instance of the Census of Manufactures or the Census of Business, the time reference is normally stated merely as "1939," "1937," etc., rather than in the longer and more precise form, such as "During 1937," "During fiscal year 1937," etc.

c. Other dates and time periods.—Specify exact date or period only where—

(1) Misinterpretation is likely if stated in brief form.

(2) It is not enough to explain the exact effective date or period in the accompanying text.

(3) No accompanying text is presented and the exact statement must appear in the table if it is to be mentioned at all.

1122. Order of listing: General.—In a chronological arrangement, the primary question is whether to use (a) the *direct method*; that is, to place first the most recent statistics followed in order by those for earlier time periods; or (b) the *indirect method*; that is, to show first the statistics for the earliest time period followed by those for more recent time periods. (See pars. 365-366.) The method selected depends upon the nature of the statistics, the purpose of presentation, and the probable convenience to the user. The following statements are suggestive only:

a. Arrangements involving future time.—Here, since the usual purpose of presentation is to project a series into the future by some method of estimate, the normal practice is to run the series forward in time; that is, to place the earlier time periods at the top of the list, and the later dates at the bottom. This facilitates following the trend from the "known" into the "unknown."

Example A-1. Preferred:	Example A-2. Rarely desirable:
1920.....	1970 ¹
1930.....	1960 ¹
1940.....	1950 ¹
1950 ¹	1940.....
1960 ¹	1930.....
1970 ¹	1920.....

¹ Estimated.

¹ Estimated.

b. Arrangements involving past time.—Arrangement here also depends largely on presentation purpose. The following general statements are supplemented by specific suggestions in paragraphs 1123 and 1124, below.

(1) **Backward in time.**—In a report devoted primarily to presentation of statistics concerned with the present, the most recent time period should appear first.⁸ In such cases, statistics for earlier time periods appear, primarily, to aid in interpreting the current information. It is assumed, therefore, that from the standpoint of the present the user is looking into the past, and the materials are arranged accordingly. *Example:* Any decennial or quinquennial census report.

Example B-1. Recommended:	Example B-2. Inappropriate:
1940.....	1900.....
1930.....	1910.....
1920.....	1920.....
1910.....	1930.....
1900.....	1940.....

(2) **Forward in time.**—This arrangement is appropriate in a report devoted to presentation of a historical progression or development, as such.⁹ Here, the current statistics are shown merely to indicate the latest development in, or end-product of, the phenomena reflected in the series. Arrangement of statistics should logically follow the development in discussion; that is, the earliest statistics should be listed first. *Example:* A history of the Census of Population, or a report on developments in cotton production since 1850.

Example C-1. Recommended:	Example C-2. Inappropriate:
1790.....	1890.....
1800.....	1880.....
1810.....	1870.....
1820.....	1860.....
1830.....	1850.....

1123. Order of listing: Decennial, quinquennial, biennial, and annual data, and special surveys.—The following statements cover normal treatment for presentation of statistics based on the indicated types of censuses and surveys.

a. Decennial and quinquennial census data.—Arrange backward in time since the reason for the report's existence is to present the statistics gained in the particular census.

b. Annual surveys, not involving data by months.—Arrange backward in time; that is, place the most recent year first. For listing order for statistics involving weeks and months, see par. 1124, below.

⁸ The *Statistical Abstract* constitutes the outstanding exception to this practice among publications of the Bureau of the Census. Since its first issue (that for 1878), the *Statistical Abstract* has placed the earlier time periods at the top of the list, although the primary purpose of the annual volume is to provide current statistics. This style has been retained for two reasons: (1) Only a small proportion of the type of the *Statistical Abstract* is set new each year. For most tables, the old type is retained and figures for an additional year are added, with figures for an earlier year deleted to make room. This creates difficulties in making over-all changes in existent *Statistical Abstract* style. (2) When, after many years, the type became badly worn and it was found necessary to reset completely for the 1947 edition, it was intended that the order of listing be reversed so as to place the latest figures at the top of the stub (and in the first column of statistics). However, each of 1,059 tables would have had to be recopied by hand, or on the typewriter, to provide acceptable printer's copy. Since the considerable expense involved did not seem justified, the traditional arrangement was retained.

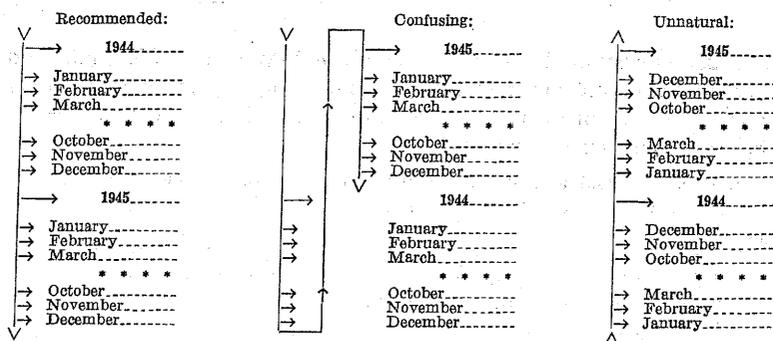
⁹ A *Statistical Abstract* supplement (*Historical Statistics of the United States, 1789-1945*) constitutes an outstanding exception to this rule among publications of the Bureau of the Census. Briefly, the supplement in question presents about 3,000 statistical time-series, with source citations and some annotation. Because of the nature of the mass-presentation problem, the data could be presented in the least number of pages if all series were arranged with the most recent year first. Here again, mass-production requirements, and the cost of printing, were the determining factors, rather than analytical considerations, as such.

Recommended:	Inappropriate:
1945.....	1941.....
1944.....	1942.....
1943.....	1943.....
1942.....	1944.....
1941.....	1945.....

c. **Special surveys.**—Where statistics from earlier surveys or censuses also are shown, place the current figures first, since their presentation usually represents the purpose of the report or table.

1124. Order of listing: Days, weeks, and months.—Listings involving days of the week, weeks of the month, and months of the year are more readily grasped by the user if they are arranged to run forward in time. Whereas most readers can readily grasp a backward listing of years and decades, a backward listing of months of the year or days of the week tends to be confusing.

In the work of the Bureau of the Census this problem arises most frequently where a monthly series is presented covering several years. Three possible stub arrangements are listed below with arrows to indicate the eye movements required to read forward in time. In the second case, note the "rotary" reading forced upon the user; note, also, the difficulty in comparing December 1944 with January 1945.



Sec. 11-C. Quantitative and Qualitative Classifications (1131-1133)

1131. General.—Census listings involving quantitative and qualitative classifications are so numerous and varied in type they cannot be covered in this manual. In all fields, however, more or less standard stub listings have been developed and are well illustrated in the published materials of the Bureau. The standard arrangements should be followed meticulously since omitted lines, lines out of proper order, changed word-order, or differences in wording, can cause considerable

difficulty in proof. Also, such variations can be a real nuisance to the user if they should pass unnoticed in the publication process.

1132. Quantitative classifications.—The general rule is to arrange the classes in order of magnitude; that is, magnitude as *shown in the class caption*, not in terms of number of cases covered by the individual class. Thus, in the standard 5-year age classification, the class "Under 5 years" is listed first, *not* the class which includes the greatest number of persons.

Note: Order of rank, or magnitude, of number of cases reported is a special arrangement used only in special-purpose tables, with the basis of the listing order clearly indicated in the title or headnote.

1133. Qualitative classifications.—The problems of qualitative classification are too complex and varied to be stated in a general rule. For most classifications used by the Bureau of the Census, standard listings have been developed, ranging from those two or three lines long to those many pages in length. These should be followed carefully except where there are strong analytical reasons for doing otherwise. (See also par. 835.)

Sec. 11-D. Clarifying Relationships Between Stubs of Varying Detail (1141-1144)

1141. General.—Frequently, when statistics are being presented for a given field, they are shown in detail of classification varying from one table or report to another. When planning standard stubs of different degrees of condensation or expansion, and when improvising such stubs to suit a given purpose, the first consideration is to insure convertibility from the standpoint of content. Once this has been achieved, attention should be turned to devices which may aid the reader in noting interstub relationships. The following discussion relates to such visual aids. (See also par. 1030 concerning the tie-in of stubs by standard placement of space breaks.)

1142. Prime lines in summary list should appear as subtotal or prime lines in the more detailed listings.—The relationship between line captions in stubs of varying detail can be made more readily apparent to the user if each line shown in a summary or condensed list *also* appears, usually as a subtotal or as a colon line, in the listing of next greater detail.

- It makes stub relationship obvious.
- It automatically provides an index of composition of the given lines.

Intermediate list	This is accurate	(but)	Detailed list
* * * * *			This is easier to relate to the intermediate list
* * * * *			* * * * *
Artists and art teachers.....			Artists and art teachers....
Authors, editors, and reporters.....			Authors, editors, and reporters.....
Chemists, assayists,*****			Chemists, assayists,*****
* * * * *			* * * * *

1143. Residual items.—The residual is literally what its name implies; that is, it represents the residue, or left-over portion, of a category after all components have been shown separately which have analytical usefulness in terms of the given presentation purpose. Special problems arise in phrasing such lines, largely because of a failure to differentiate residual line captions from specific line captions in the following respects:

a. Nature of the "residual."—A "residual" is not an entity in itself. It has significance only in terms of the other members of the classification appearing with it in the given table. It cannot stand alone, or out of its original order, unless it is shown in quotes and carefully defined. In contrast, the specific line caption represents more nearly a homogeneous class or subclass and is better able to stand by itself.

b. Appears after last specific entry in same class.—Since it constitutes "the remainder," the residual always appears at the end of the listing to which it applies; that is, it follows the last specifically listed component of the whole of which the residual is a part. The coverage of a residual entry is always determined by the number and coverage of the items listed immediately above it. In contrast, as long as the *specific* line caption is under the appropriate headings its coverage is not affected by its relative position although improper or inconsistent placement may be confusing.

c. Not included in comparative ranking of categories.—A residual is not ordinarily included in a discussion or listing of the members of a classification in terms of relative occurrence or rank. When items are ranked in order of magnitude, the residual ordinarily remains at the end, irrespective of size. The observations to which it refers are not homogeneous except that they are all "not in any class listed above."

d. Not subject to consistency in value.—The residual is not subject to the requirement of consistency in numerical value from one table to another in the same manner as are all specifically described members of the classification. Thus, the residual category "Other races" may and does vary in size from one table to another, or even within the same table, depending upon the degree of race detail shown separately before the residual is reached.

A residual merely makes up the difference between the total and the sum of the entries for the classification members shown separately. Hence, in a classification of greater detail, the residual entry, though described identically, may well be smaller in numbers than in a stub of lesser detail.

Residual treatment is theoretically correct in all three of the following examples. However, for preferred treatment of example C-1, see example C-2, par. 1144, below.

Example A-1:	Example B-1:	Example C-1:
All classes..... 350	All classes..... 350	All classes..... 350
White..... 150	White..... 150	White..... 150
Negro..... 125	Negro..... 125	Negro..... 125
X Other races..... 75	Indian..... 10	Indian..... 10
	Chinese..... 40	Chinese..... 40
	X Other races..... 25	Japanese..... 15
		X Other races..... 10

1144. Maintaining identity of residual.—Although not essential from the theoretical standpoint, there may be a decided advantage in maintaining a residual identity where feasible.

a. Aids in clarifying stub interrelationships.—If the position (and coverage) of the residual is shifted between tables, it may increase the reader's troubles when comparing the stubs. Note, below, that the relationship between stubs A-2 and C-2 is more readily apparent than between stubs A-2 and B-2.

Example A-2. Summary list:	Example B-2. Residual shifted in detail list:	Example C-2. Residual maintained in detail list:
All classes..... 350	All classes..... 350	All classes..... 350
White..... 150	White..... 150	White..... 150
Negro..... 125	Negro..... 125	Negro..... 125
X Other races..... 75	Indian..... 10	X Other races:
	Chinese..... 40	Indian..... 10
	Japanese..... 15	Chinese..... 40
	X Other races..... 10	Japanese..... 15
		All other..... 10

b. "All other" versus "Other."—Where residuals are maintained as in example C-2, above, a terminology question arises; that is, "Is it permissible to have two line captions of identical wordings, but different coverage, in the same stub, as long as they are on different indent levels?" Theoretically, the answer is "Yes." In practice, such cases should be avoided.

Where subresiduals appear, it frequently is helpful to the user, as well as to those preparing the tables, if the wording of the subresidual is modified.

- (1) Use "Other," or its equivalent, for the first level of residual.
- (2) Use "All other," or a similar modification, for a subresidual.

Chapter 12

THE BOXHEAD (1201-1272)

Sec. 12-A. General (1201-1211)

1201. Definition.—The table boxhead is that portion of the table in which is located the individual column heads or captions describing the data in each vertical row or column, together with needed classifying and qualifying spanner heads.

Placed at the top of the table, the boxhead is separated from the title and headnote by a parallel top rule. The boxhead is set off from the stub and field, which appear below it, by a single horizontal rule running the full width of the table.

1202. Component parts defined.—In terms of construction, the component parts of the boxhead are few in number. For illustration of the various parts of the boxhead, see fig. 18, pp. 184-185. Some of the more important components may be defined as follows:

a. Stubhead or stub box.—The column head or caption of the stub which describes the stub listing as a whole. Although it is physically a part of the boxhead, it is classified with the stub for discussion purposes. (For treatment, see sec. 9-A.)

b. Individual column head or caption.—The basic unit of the boxhead. A classifying, descriptive, or qualifying title which is located directly above the individual column to which it refers and is framed on either side by the column rules of that column. It may or may not be qualified, supplemented, or described by one or more spanner heads above it. (See secs. 12-B and 12-C.)

c. Spanner head.—A classifying, descriptive, or qualifying caption spreading across (and above) two or more individual column heads or across two or more lower spanners. In its normal range, it applies, in varying degree, to all columns or subordinate spanners thus covered. This is the boxhead counterpart of the stub center head or subhead and of the colon or dash (read-in) line-caption. (See sec. 12-E.)

d. Undercut spanner.—Undesirable. A spanner appearing on the lowest level of box directly over, and spanning, two or more columns. Since it appears *below* the individual column heads, it breaks the column rules and separates the column captions from the data which they describe. Most commonly it is used to specify the presentation unit for all columns covered. The undercut spanner should be used sparingly. (See sec. 12-G.)

e. Banner head.—Undesirable. A special type of spanner extending across and covering the entire boxhead of the table (except the stub box). It should be used only under carefully restricted circumstances. (See sec. 12-F.)

A *quasi-banner* is the same as a banner except that the total column is not covered. This form is useful but, at times, may be subject to the same criticism as the banner head. (See par. 1264.)

f. Column numbers.—Rarely used by the Bureau of the Census. A device for numbering columns to facilitate reference. Normally, Arabic numerals are used and the stub is not included in the numbering.

Where present, column numbers may be located within an auxiliary single-level box running directly under the boxhead proper, and set off above and below by a single horizontal rule. In such cases, parentheses are not used.

On occasion, column numbers are shown parenthetically *within* the individual column boxes.

g. Panel.—A distinctive segment of the boxhead consisting of a group of related column heads with their attendant spanners, frequently a self-contained unit. It represents the boxhead counterpart of the stub block. The term "panel" is largely a term of convenience used when referring to distinctive groups of columns.

1203. Heads in field, not in box.—The following heads are not a part of the table boxhead, as such, but are commonly confused with it. Although they perform a function similar to that of the boxhead, they appear in the field of the table. Their use is discussed in detail in Chapter 14, The Field.

a. Field spanner.—Undesirable, but necessary in special cases. A type of spanner appearing recurrently within, and constituting a component part of, the field. Its confusion with the boxhead may be minimized if the field spanner is thought of as a stub center head transposed into the field in cases where—

- (1) No room is available to repeat the stub, and
- (2) The omitted subentries for the spanner would, if shown, be identical with those in the stub as it appears at the left.

A common error is the inclusion of the uppermost of a series of field spanners within the boxhead of a table, usually as the uppermost spanner of the boxhead. This practice leads to confusion.

Compare this form (example A-1, par. 1431) with the repeated boxhead found in divide tables (example A-2, par. 1431) and with the undercut spanner (example A-1, par. 1271).

Note: At times, field spanners are used where stub center heads are too long to be shown in a narrow stub. Here, each head is run in the field, set off by rules. This should be avoided unless absolutely necessary.

b. Unit-indicator.—Normally, a component of the field of the table, not of the boxhead, even though the lower box may, in special cases, be used for this purpose. (See sec. 12-G.) The unit-indicator, as such, is a device designed to make clear the exact unit of measurement to which the given statistics refer. When it appears at the top of a column, below the boxhead, it normally is set in italic in letterpress; it is usually placed in parentheses in typewriter-offset.

FIGURE 18.—BOXHEADS AND THEIR COMPONENT PARTS (See pars. 1201-1203)

Example A. Boxhead with two levels:

Division and State ①	Total farms ②	Operated by white owners ③			Operated by nonwhite owners ③		
		Total ④	Full owners ⑤	Part owners ⑤	Total ④	Full owners ⑤	Part owners ⑤

- ① Parallel top rule.
- ② Stubhead.
- ③ Single bottom rule.
- ④ Individual column head.
- ⑤ Spanner head.
- ⑥ Panel.

Example B-1. Boxhead with three levels and with column numbers separated by horizontal rule:

Region and sex	Born in the specified region ①			Born in and living in the specified region	Living in the specified region ①			Net gain (+) or loss (-) through inter-regional movement (col. 5 minus col. 1)
	Total	Living in other regions ②			Total	Born in other regions ②		
		Number	Percent			Number	Percent	
	1 ③	2 ③	3 ③		4 ③	5 ③	6 ③		7 ③	8 ③

- ① Upper spanner.
- ② Lower spanner.
- ③ Column number.

Example B-2. Boxhead with four levels and column numbers in parentheses:

Yearly average or year	Consumption ①							Stocks in consuming establishments at end of year ①			
	Cotton, excluding linters ②										
	Total	Domestic ③					Linters	Cotton, excluding linters ③			Linters
		Total	Up-land	Sea Is-land	Ameri-can-Egyptian	For-ign		Total	Do-mestic	For-ign	
	(1) ④	(2) ④	(3) ④	(4) ④	(5) ④	(6) ④	(7) ④	(8) ④	(9) ④	(10) ④	(11) ④

- ① Upper spanner.
- ② Lower spanner.
- ③ Third-level spanner.
- ④ Column number.

FIGURE 18.—BOXHEADS AND THEIR COMPONENT PARTS (See pars. 1201-1203)—Con.

Example C. Boxhead with undercut spanner:

Group or industry	Census year	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials purchased	Value of products	Value added by manufacture
				① In thousands of dollars			

- ① Undercut spanner comprising a unit indicator.

Example D. Divide table (compare with example E, table with field spanners):

Country of birth	The State			Urban		
	Total	Male	Female	Total	Male	Female
England.....						
Scotland.....						
* * * * *						
Azores.....						
All other.....						

Country of birth ①	Rural-nonfarm ②			Rural-farm		
	Total	Male	Female	Total	Male	Female
England.....						
Scotland.....						
* * * * *						

- ① Repeated stub.
- ② Repeated box.

Example E. Table with field spanners (compare with example D, divide table); field spanners are not a part of the boxhead:

Country of birth	Total	Male	Female	Total	Male	Female
	The State ①			Urban ①		
England.....						
Scotland.....						
* * * * *						
Azores.....						
All other.....						
Rural-nonfarm ①			Rural-farm ①			
England.....						
Scotland.....						
* * * * *						

- ① Field spanner.

For a more detailed statement concerning the nature and use of this device in the stub, see sec. 9-F. For treatment in the field, see sec. 14-C. Although details of placement differ between stub and boxhead, the general principles involved are the same wherever the device is used.

1204. Limitations on column width, caption lineage, and number of box levels.—Arbitrary rules on these points are not possible since the situation necessarily varies from table to table, and even within the boxhead of the given table. However, a few general principles may be laid down, as follows:

a. Column width.—A major objective in Bureau of the Census tables is to present the maximum amount of data within the given space. Therefore, the width of the column box normally should be based on the horizontal space required by the largest figure to be shown in any cell in the given column, usually the grand total figure. In other words, where possible, the column width should be determined by space demands of the cell entries and the caption adjusted accordingly.

A desirable column width would be at least two spaces more than that required by the maximum cell entry. This allows for a "bear-off" for the maximum figures of one space on either side of each column rule.

b. Lines per caption.—Column captions more than three lines long should be avoided where possible, particularly where the column box is extremely narrow. In particular, captions involving many 2- and 3-letter hyphenations are hard to read, as are words which are hyphenated twice because they cannot be fitted into two lines.

c. Number of box levels.—Where possible, hold the number of box levels to not more than three; two is preferable as a maximum. If four levels are essential, it is desirable that one level indicate merely the unit of presentation or contain some other type of caption readily grasped. Beyond three levels, the boxhead becomes too complex for many readers to follow.

1205. Space problem caused by wordy column captions.—Column captions and other boxhead captions must necessarily make clear the nature of the data. However, excessive wordiness not only wastes space but may require sacrifice of columns of data.

a. Effect on columns per page.—The number of categories which can be shown in the box on any given page is strictly limited. Excess wordage in column boxes, even where only two more spaces are added in each column, may squeeze two or more columns from the page.

Example: A census-size table may be thought of as being 172 typewriter spaces wide. If the stub occupies 24 typewriter spaces, and the maximum cell entry in each column takes 6 spaces (99,999), a maximum of 21 columns is possible, since 1 space must be provided for each column rule. This represents a *squeezed table* and the above figures assume, also, that no column caption will exceed the 6-space width. Expansion of all column captions to an 8-space width will mean deletion of about 5 columns of data from the page.

b. Effect of continuing box to next page.—Where wordy column captions squeeze columns over to the next page, considerably more publication space may be required than the amount necessary to show those particular columns, if only because of repetition of the stub on the new page.

(1) Stub repetitions.—Stub repetition is expensive in terms of space. In the above example, the 24-space stub, narrow though it is, takes only a little less than four 6-space, or three 8-space, data columns. Many stubs may run double or triple this width.

c. "Last page" treatment for continuing box as compared with continuing stub.—If the stub continues, the left-over on the last page is run as a fraction of a book-page as long as a reasonable number of lines of data are to be shown. That is, the last page of a table need not occupy all the *vertical* space of the book-page. Another table may be started on that page, or the remainder of the page may, in some cases, be left blank.

Where the box continues, however, the last table-page *must* cover the *full width* of the book-page. Hence, if the number of columns (with normal spacing) is too few to extend across the full width of the last table-page, one of four steps must be taken:

- (1) The columns on the last page must be widened;
- (2) More columns must be brought over from previous pages;
- (3) The columns on the last page must be pushed back into previous pages and the "last page" eliminated; or
- (4) The last table-page must be run fractional-measure with the stub doubled or tripled up. (See par. 215 for definition, and fig. 4 for illustration, of fractional-measure tables.)

1206. Colon heads not used.—Whereas, in the stub, a caption ending in a colon serves as a subhead (pars. 813 and 921), the construction of the boxhead prevents use of a similar device. Instead, spanner heads must be employed for the purpose. That is, a colon line, as it appears in the stub, becomes a spanner head if shifted to the box.

Example A. In stub:
Color of head:
White.....
Nonwhite.....

Example B. In box:

Color of head	
White	Nonwhite

a. Case of single subentry.—In the stub where a "colon line" has only one subentry, the subentry is run in with the colon line and the colon preserved (par. 924). Where an equivalent situation arises in the box, the same basic principle is observed. Spanner heads must cover more than one column.

Example C-1. In stub (right):
Increase: 1930 to 1940.....

Example D-1. In box (right):

Example D-2. In box (wrong):

Example C-2. In stub (undesirable):
Increase:
1930 to 1940.....

Increase: 1930 to 1940

Increase
1930 to 1940

1207. Captions should run across, not up.—Boxhead captions should be planned to run across the page, not up; that is, they should be run in the same direction as the stub and the table title, not at right

angles to them. This practice should be maintained even though it means heavy use of abbreviations or word-divisions. Run captions "up" only as a last resort.

Example A-1. Preferred:

Municipally owned electric utilities

Example A-2. Acceptable:

Municipally owned electric utilities

Example A-3. Undesirable:

Municipally owned electric utilities

1208. Rules for running captions up.—When necessary to run captions "up" instead of across, several basic rules should be followed:

a. Must read up the page, not down.—Captions running "up," as the term implies, should always start at the bottom of the box and read up. They should not start at the top and read down. This practice is universal and the reader is accustomed to it. *Exception:* See paragraph 1208c, below, concerning broad tables.

b. "Run up" only those entries which cannot be inserted horizontally.—If it is essential to run one caption "up," there is no need to run all of them up on that page or deck. Run up only those where horizontal insertion is impracticable. Avoid run-up on spanner heads even though the subordinate column heads run up. Never run up a read-in caption (caption ending in a dash). Common sense should prevail, however. Thus, if only one or two column heads can be run horizontally and the rest must be run up, it would be sensible to run all of them up. In case of doubt, run everything horizontally that can be inserted that way.

Example A-1. Preferred:

Example A-2. Undesirable:

Note: Examples assume that space demands that the "white" captions must be run up.

Age	Total	Native white	Foreign-born white	Negro	Other	Age	Total	Native white	Foreign-born white	Negro	Other
-----	-------	--------------	--------------------	-------	-------	-----	-------	--------------	--------------------	-------	-------

c. Undesirable on broadside tables.—Column captions on broadside tables should always read crosswise; that is, they should always run in the same direction as the title and stub. *Never run captions up in a broad table.*

(1) Reason why undesirable.—Broad tables are used where the table is too wide to be run upright. They are objectionable in themselves since the user must turn the report sidewise to read them.

Insertion of run-up heads in a broad table forces the reader to turn the book upside down to read them. Comparison of data in such tables with data in upright tables in the same report becomes constructively impossible, particularly if comparisons of box wording are also necessary.

Example B-1. Upright table:

Age	Total	White	Negro	Other
All ages.....	1,000	600	300	100

Note: Comparison of column captions in example B-1 with those in B-2 is constructively impossible. The difficulty is increased where (a) the captions are long and involved, (b) an important distinction lies in the difference of a single word, and (c) the tables are several pages apart in a bound volume.

Example B-2. Broadside table:

Other	100
Negro	250
Foreign-born white	150
Native white	400
Total	900
Age	.....
All ages.....	.....

(2) Alternative.—The only possible alternative, other than redesigning the table, is to make such captions read down, instead of up, on broad tables. If this were done, the user, to read them, would tend to restore the report to a normal position; this would simplify comparisons with upright tables. However, the only real solution is to redesign the table.

1209. Style and punctuation.—The same general principles apply as for other parts of the table.

a. Style.—Telegraphic style is used as elsewhere in the table. However, because of space limitations, special attention must be paid in boxhead writing to reduction of wordiness and to emphasis upon presence and location of keywords or phrases.

b. Punctuation.—Normal punctuation is used. Special care is required since a misplaced punctuation mark coupled with the extreme condensation of phrasing may obscure the meaning of the column head or even change it completely.

No punctuation mark is used to terminate captions as such. The dash (—) is used for read-in heads, but note that its appearance means that the caption is incomplete. (For definition and explanation of dash or read-in lines, see par. 926.) Terminal periods are *not* used, but abbreviation periods are.

Example A-1. Right (no terminal periods):

Number of employees		
Total	School	Nonschool

Example A-2. Wrong (terminal periods are incorrect):

Number of employees.		
Total.	School.	Nonschool.

Example B. Right (periods are for abbreviations, not to indicate ends of captions):

Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
-------	------	------	------	------	-----	------	------	------

FIGURE 19.—USE OF ABBREVIATIONS TO DECREASE DEPTH OF BOX-HEAD

Example A. Spelling-out increases box depth:

Area, color, and age	Persons not in labor force				Percent of total		
	Total	Engaged in own home housework	In institutions	Employment status not reported	Engaged in own home housework	In institutions	Employment status not reported

Example B. Consistent abbreviation decreases depth, but diminishes clarity:

Area, color, and age	Persons not in labor force				Percent of total		
	Total	In own home housework	In institutions	Empl. status not reptd.	In own home housework	In institutions	Empl. status not reptd.

Example C. Spelling-out, where possible, gives reader clue as to meaning in the panel where the same words are abbreviated to save space:

Area, color, and age	Persons not in labor force				Percent of total		
	Total	Engaged in own home housework	In institutions	Employment status not reported	In own home housework	In institutions	Empl. status not reptd.

c. **Abbreviations.**—Abbreviations may be used heavily if the depth of head is materially reduced thereby. Use of an abbreviation in one column or spanner box does not demand its use in all column boxes on that page. Where non-standard abbreviations are “invented” for use in a tight portion of a boxhead, it will help to make the meaning clear if the term is spelled in full in those boxes where sufficient space is available. In the example (see fig. 19, p. 190), note that the obvious identity of corresponding column heads in the two panels of the table even makes possible shortening of the “housework” caption without danger of confusion.

1210. Capitalization.—The current style of the Bureau of the Census calls for setting or typing all boxheads in lower case (This is in lower case). Full caps (THIS IS IN FULL CAPS), small caps (THIS IS IN SMALL CAPS), and caps and lower case (This Is in Caps and Lower Case) are no longer used in tabular boxheads of the Bureau of the Census.

The use of caps (or of small caps) in the stub box, and in the uppermost spanners of the boxheads, was traditional in the tabular style of the Bureau of the Census. Analytical objections to this practice led to its abolition, effective February 4, 1948.

1211. Vertical and horizontal spacing of captions.—The following rules reflect standard practice.

a. **Vertical spacing:**

(1) Box captions are centered vertically within their box. They do not line up at the top or bottom.

<i>Example A-1. Right:</i>				<i>Example A-2. Wrong:</i>				<i>Example A-3. Wrong:</i>			
Total	White	Negro	Other races	Total	White	Negro	Other races	Total	White	Negro	Other races

(2) They are run solid; that is, no space is allowed between the lines, irrespective of the space available in the given box, openness of the remainder of the table, or the amount of space which may be left blank on the page because the table runs short.

<i>Example B-1. Right:</i>		<i>Example B-2. Wrong:</i>	
Native	white	Native	white

(3) Depth of box is controlled by the deepest box (the controlling box) on the same level, unless the total depth of boxhead would thereby be increased. In examples C-1 to C-4, column captions shown as A, B, C, etc., represent 1-line captions.

Example C-1. Right:

Total		This is the deepest box on top level			Other	
A	B	C	D	E	F	G

Example C-2. Wrong (no saving in depth):

Total		This is the deepest box on top level			Other	
A	B	C	D	E	F	G

Example C-3. Right (saving in depth justifies this):

Total		This deep box usually controls depth of top level			Other	
Three line head	B	C	D	E	F	G

Example C-4. Wrong (if lower rule of spanner does not line up with other spanners on its level, it must line up with spanner on next lowest level. Never leave it hanging between):

(4) In the controlling box, a 1-em space (letterpress) is left above and below the horizontal rules defining the upper and lower limits of the box. In the remaining boxes on that level, the captions are centered vertically. In typewriter-offset, either one line or one-half line may be left blank above and below the rule. Examples D-1 to D-3 relate to the controlling box only.

Example D-1. Right:

Sound spacing for the controlling box

Example D-2. Wrong (too open):

Too much space above and below

Example D-3. Wrong (too tight, avoid):

Too little space above and below

b. Horizontal spacing:

(1) Each line of each boxhead is centered in the given box; the lines are not blocked. Run each line as wide as possible; leave only one space blank on either side of column rules. *Exception:* Where a box is 10 ems or more wide as printed (20 characters or more in typewriter), a caption making 3 lines or more is set or typed with a hanging indent.

Example E. Illustrations of horizontal spacing:

This is right	This is wrong	Run first line full width	Do not run lines short in center of wide column
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Example F-1. Right (typewriter-offset):

This caption is in a wide spanner or column that is more than 20 characters wide, hence this hanging indent is appropriate for a 3-line caption

Example F-2. Right (letterpress):

This caption is in a wide spanner or column that is more than 10 ems wide as printed, hence this hanging indent is appropriate for a 3-line caption

(2) **Comparative line length.**—Wherever practicable use an inverted pyramid effect; that is, make the first line the longest. (See example E, above.) This makes for easier reading. However, 2-letter word divisions should be avoided. Also, if a key phrase or word combination would otherwise be split, it might be helpful to the user if the first line were shortened to preserve the conceptual unity. Finally, it is better to run the first line short if running it full width will result in two successive lines ending in word divisions.

c. Spacing for run-up heads.—Where heads run up, they are not centered in the width¹ of the box. This rule applies both to letterpress (type-set) composition and to typing for offset reproduction. Instead, the first line of the given box is given a bear-off² (from the horizontal rule) of one en in letterpress; one typewriter space for offset. For the 2-line run-up heads, letterpress and typewriter-offset procedure differs, as indicated below.

(1) **1-line run-up heads.**—If it is a short line, start one en (letterpress) or one typewriter space (typewriter-offset) from the bottom rule and let the line run short.

Example G. Right:

Do not center	A short line	Let it run short	Line-up the run-up heads like these
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Example H. Right:

One space bear-off is enough in the controlling box

(2) **2-line run-up heads.**—In *letterpress*, the first line is run full width of the box (except for bear-off at either end). The second line is centered under the first. In *typewriter-offset*, the first line will rarely come out even to full length of box, and attempts to center second lines on either box width or on first lines will create a ragged appearance. Therefore, a hanging indent is used for a run-up head of *two* lines or more; that is, the second and following lines are indented one space under the first line. All lines run as close to the right-hand edge as possible (except for a bear-off of one space). No attempt is made to space them on the typewriter to line them at the right.

¹ Where heads run up, "width" is the dimension otherwise referred to as "depth."

² "Bear-off" is the space left between the rules and the beginning or ending of a line.

(3) **3-line heads.**—A hanging indent is used, both in letterpress and type-writer-offset. In *letterpress*, the overrun is indented one en; in *typewriter-offset*, it is indented one space.

Example J-1. Right (in letterpress):

With 2 lines, center the second	With 3 or more lines, use a hanging indent like this	Block indent invariably is wrong	Hanging indent is wrong for a 2-line head	Centering is wrong when 3 or more lines appear
---------------------------------	--	----------------------------------	---	--

Example J-2. Right (in typewriter-offset):

With 2 lines, hang the second	With 2 or more lines, use a hanging indent like this	Block indent invariably is wrong	Hanging indent is right for a 2-line head	Centering is wrong when 2 or more lines appear
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Sec. 12-B. The Column Head or Caption (1221-1227)

1221. Definition.—The basic unit of the boxhead. The column head or column caption is a classifying, descriptive, or qualifying title of an individual column. It is located directly above the individual column to which it refers and is framed on either side by the column rules of that column. It may or may not be qualified, supplemented, or described, in turn, by one or more spanner heads above it.

1222. General class of columns: Prime and nonprime.—*Prime columns* are those columns of data constituting the hard core of the table. From them, all other, or *nonprime*, columns of data can be derived by mathematical processes. This classification is significant in table planning since, in general, inclusion of prime columns increases the amount of basic information provided the user; inclusion of nonprime columns contributes to his convenience. Ordinarily,

if columns must be omitted because of lack of space, it is best, in Bureau of the Census presentation, to reduce first the number of nonprime columns other than basic totals.

A detailed statement of this classification is presented in pars. 942-944 where the discussion is in terms of the stub. The same general principles apply to the boxhead.

1223. Additive and nonadditive columns.—A classification of columns useful in placing vertical rules. (See sec. 13-C, below, for placement and use of vertical rules. See also par. 945 for discussion of additive and nonadditive lines.)

a. Additive column.—Any one of two or more columns of entries which, taken together, will add to a total or subtotal column shown in the table. The individual columns in such a "group" may appear consecutively, or they may be dispersed. Each may, in itself, be prime or nonprime; thus, one of the group may be a prime data column, and one (or more) of the others may be a subtotal (nonprime) column.

b. Nonadditive column.—A column not a member of any group of columns which together add to a total or subtotal shown in the table; or any column not subject to, or not intended to be subjected to, the additive process, such as a line of means, medians, etc.

1224. Word order.—Carefully phrased column heads can clarify the whole basis of column arrangement. In general, it is well to stress differences between adjacent columns rather than similarities. That is, place at the beginning of each column head the key word or phrase which indicates the point of difference or of contrast. However, at times the opposite procedure is desirable, particularly when it is important to stress the unity of a group of columns.

a. Stressing difference.—Within a related group of columns, it is ordinarily desirable not to have two or more adjacent column heads start or close with the same phrase. Frequently, this is a signal that a spanner head is needed.

Example A-1. Preferred:

Native white	
Native parentage	Foreign or mixed parentage

Example A-2. Questionable except to save a 4-level box:

Native white, native parentage	Native white, foreign or mixed parentage
--------------------------------	--

Example B-1. Preferred:

Electric utilities	
Privately owned	Municipally owned

Example B-2. Questionable:

Privately owned electric utilities	Municipally owned electric utilities
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b. **Stressing similarity.**—At times the exactly opposite holds true in that similarity between columns should be stressed. In general, this is the case where spanners are impracticable and the individual column heads must be used to indicate column grouping.

Example C-1. Stressing difference where spanner indicates grouping:

Mixed parentage	
Father foreign	Mother foreign

Example C-2. Indicating column pairing by similarity stress—no spanner:

Native father	Native mother	Foreign father	Foreign mother
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1225. Column heads should be single level.—Column heads should not be divided into two levels. That is, a 1-column “spanner” is undesirable. This question most frequently arises as follows:

a. **Treatment of unit-indicator.**—If a unit of measure is to be included the box should not be split horizontally to create a single-column spanner. Either place the unit-indicator in parentheses immediately after the caption, or show it as a formal unit-indicator above the first cell-entry in the field.

Example A-1. Preferred:

Number reporting on value	Total value
65	Dollars 3,200
25	1,000

Example A-2. Acceptable:

Number reporting on value	Total value (dollars)
65	3,200
25	1,000

Example A-3. Wrong:

Number reporting on value	Total value
	Dollars

b. **Two classification-levels in one box.**—In a table where spanner heads are used for indicating a superior level of classification, one of the classes designated by spanners may have only one component part. This results in a single column extending to the top of the spanner level. Here, both the “spanner” classification and the individual column classification should be included in the single column head.

Solution: Do not divide the box. Place the spanner classification first to maintain parallelism; then run in the column classification by means of a comma, preposition, dash, etc., as the circumstances warrant. (In the following example, it is assumed that the sex classification is shown for the urban group, but only the total for the rural group.)

Example B-1. Right:

Urban			Rural, total
Total	Male	Female	

Example B-2. Wrong:

Urban			Rural
Total	Male	Female	Total

1226. Capitalization.—Column heads are invariably set or typed in lower case; never in caps, or in caps and lower case. (See par. 1210.) Comparative classification-level, as such, has nothing to do with capitalization in the box.

Right:

Total white

Wrong:

TOTAL WHITE

Wrong:

Total White

Wrong:

TOTAL WHITE

1227. Column rules.—Normally, the individual column is set off by single lightface (hairline) column rules. However, moderately bold rules (about 3/4-point face) are normally used to set off panels, sometimes appear after (to the right of) nonadditive total columns, and occasionally are used as a substitute for the parallel total rule. For a discussion of use of vertical rules, see section 13-C.

Sec. 12-C. The Column Head: Total and Subtotal Column (1231-1233)

1231. General.—The total (and subtotal) head is a special case of the column head, comprising the descriptive title (or caption) of any column composed of grand totals, group totals, or subtotals.

Most of the discussion of total and subtotal data-line captions (pars. 952-959) applies equally to total and subtotal column captions and will not be repeated here.

1232. Various meanings of term “total.”—In the boxhead as in the stub, the term “Total” is subject to a number of different interpretations. Some of the more important meanings are listed below.

a. **The result of a summation process** applied to the subentry columns; the sum of the parts actually shown separately. This is the most commonly understood meaning of the term. It is the normal meaning in such phrases as “Total column,” “Total entry,” etc.

b. **The aggregate, or total number,** as an independent item. This usage is typified by such individual columns (without subordinate columns) as “Total value (thousands of dollars).”

c. **The total, or the whole, as a class in itself,** or as representing a class of classes. This is typified by the “Total” class in the area classification: “Total,” “Urban,” “Rural.”

In most instances, as in the stub, these differences tend to be academic in that a given total column may reflect two, or even all three, of these meanings at the same time.

At times, however, it is important that the reader understand which meaning is intended or that one of the meanings does not apply. Here, the table-designer should keep the above distinctions in mind

and should govern his treatment of spanner heads and of column heads for total and subtotal columns, accordingly.

See paragraphs 953-958 for application of above discussion. In general, the statements made there (in respect to the stub) apply also to the boxhead. In most instances the effect of transposing the stub examples to the box situation will be obvious.

1233. The "grand-total" cell.—The grand-total cell probably tends to be less well described than any other cell in the statistical table. Intent upon making clear the description of lines and columns of data, the table-designer finds it easy to assign "Total" as the caption of the first line, and "Total" as the caption for the first column. Occasionally, he may cap this situation by assigning "Total" as the spanner caption for the first panel. The following result is frequently passed unnoticed:

Item	Total		
	Total	A	B
Total.....	X		

At the left, the grand-total cell (X) is described as "Total, total, total." This sends the reader to the table title for a description which may not be too well stated there nor too easy to decipher.

a. Alternative terms for "Total."—A simple solution of the above problem is to describe at least one, preferably two, of the above total classifications in definite terms. Thus, if one means the total for both sexes combined, substitute "Both sexes" for "Total." If one means the total for all race groups, substitute "All races" or "All classes," etc. The third term may be left standing if the other two are described properly, since the combined description may reasonably read "Total, both sexes, all races."

b. General rule.—Each case must be handled on its merits. In general, instances are rare where space limitations prevent a solution to the problem. The general rule should be:

(1) **Rule.**—In describing grand-total cells the single word "Total" should never appear more than once. If three or more captions apply to the given grand-total cell, no more than one should be labelled simply "Total"; no more than one other should have a similarly generalized term, such as "All classes"; the remaining one or more captions should always be explicit in description.

(2) **Application.**—The above rule is more reasonable than it may seem at first glance. Where more than two captions apply to the grand-total cell, the additional captions must necessarily appear either as centered heads in the stub or as spanner heads in the box. In such cases the availability of full stub width or of spanner width simplifies adequate description.

Example A-1. Wrong (spanner and column space available for more detailed description):

Age	Total			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total.....									

Example A-2. Right (wise use of spanner space):

Age	The State			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
All ages.....									

Example A-3. Right (where spanner total is hard to describe,¹ adjust column heads):

Age	Total ¹			Urban			Rural		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All ages.....									

¹ That is, assume that the above spanner entry ("Total"), if spelled out in full, would read "Balance of metropolitan district outside central cities." In such a case, it is simpler to adjust the caption of the grand-total column.

Sec. 12-D. The Dash (or Read-in) Head (1241-1248)

1241. General.—For definitions and general principles see pars. 813, 921, 926-929, and 931 where the "read in" is discussed in terms of stub presentation. Read-in heads should be used sparingly in the boxhead. They are best reserved for cases where a major gain in clarity is involved.

Briefly, the dash or "read-in" caption is a fragment; it is not complete in itself. It is the beginning portion of each caption in the boxes under it, or of the cell entries if it appears in a column head and not in a spanner head. Thus, in example A-1, the full caption of the first column is "Born in New York"; of the second column is "Born in New Jersey," etc. For further illustration, see par. 1252c, examples H-1 and H-2.

1242. Clarification of paired distributions.—Certain paired or cross distributions tend to be confusing, particularly those involving identical stub and column captions. (See example, below.) Here, the dash head may go far to assist the user in reading the table.

Example A-1. Helpful:

Residence in 1940	Born in—		
	New York	New Jersey	Pennsylvania
Middle Atlantic:			
New York.....			
New Jersey.....			
Pennsylvania.....			

Example A-2. Helpful:

City	Births by place of—	
	Occurrence	Residence
Akron.....		
Albany.....		
Atlanta.....		
Boston.....		

1243. Avoidance of misunderstanding.—At times a misconception may be avoided by proper use of the “read-in” principle. The following example illustrates this and emphasizes the need for care in wording boxheads. In example A-1, the read-in head makes clear that the entries refer to the price for the 1939 crop and the 1940 crop; that is, prices obtained for products grown in that year. In example A-2, “Crop price” might mean prevailing price in the given year for type of crop specified, irrespective of production year.

Example A-1. Clear:

Price for crop of—	
1939	1940

Example A-2. Confusing:

Crop price	
1939	1940

1244. “Read in” rarely made to cell entries.—Read-in heads should normally appear as spanners reading in to lower spanners or to column captions. “Read ins” are rarely used in the lowest level of box where the “read in” would be to the individual cell entries. The latter usage should be confined to reader columns (columns containing words or phrases in the cells); even then, it is rarely needed.

1245. Should be avoided over total columns.—Read-in heads should not be used over total columns except where the total caption is phrased for proper inclusion. In example A-2, note “Families having total families.”

Example A-1. Right:

Total families	Families having—		
	No child	1 child	2 or more

Example A-2. Wrong:

Total families	Families having—		
	No child	1 child	2 or more

1246. Exemption of residuals from read-in rule.—Where necessary, residual entries, such as “Other,” or “Remainder,” etc., may be exempted from the rule that all subentries of a read-in caption *must* “read in” smoothly. Where practicable, however, the wording of the read-in spanner or of the residual caption should be adjusted to conform. (See par. 928.)

Example A-1. Preferred:

Total, owned homes	Occupied by—		
	White	Non-white	Other races

Example A-2. Acceptable:

Total, owned homes	Owned homes with—		
	White occupants	Nonwhite occupants	Other races

1247. “Reading in” to other terminal groups.—Terminal groups other than residuals are not exempt from the read-in rule. However, note that here, as elsewhere, a listing terminating an obvious series may reasonably omit the term indicating what is being classified. Thus, in example A-1, paragraph 1245, above, it is sufficient to say “2 or more” instead of “2 children or more” since the previous column captions make it clear that “children” is meant.

1248. Incorrect use of the read-in dash.—In the boxhead, as in the stub, dashes frequently are used unnecessarily. Improper use of the dash may be confusing.

a. Unnecessary.—In example A, below, the dash is useless. True, the spanner “reads in,” but this would be true of many spanners. If the dash is not essential, it should be omitted, thereby focusing the reader’s attention on instances where real assistance is offered by the read-in dash.

b. Confusing.—In example B, the dash after the date (“June 30—”) is not merely useless; it falsely implies that the effective year varies from cell to cell. No such variation appeared in the published table from which this example was extracted. In fact, careful examination of the table showed no meaning for the dash. Its function, in such cases, is to invite the reader to search for something that does not appear.

Example A. Unnecessary:

Power available—	
90 percent of the time	50 percent of the time

Example B. Confusing:

Number of items, June 30—	
Type A	Type B

Sec. 12-E. The Spanner Head (1251-1255)

1251. Definition.—The spanner head is a classifying, descriptive, or qualifying caption spreading across (and above) two or more individual column heads, or across two or more lower spanners. In its normal range, it applies, in varying degree, to all columns or subordinate spanners thus covered. The spanner head represents the boxhead counterpart of the stub center head or subhead and of the colon and dash (read-in) line caption. General principles outlined for such stub devices apply also to the spanner head. (See secs. 9-B and 9-C.)

1252. Purpose and function.—The purpose of the spanner head is similar to that of stub center heads, etc., but an increased burden is laid upon it by the demand for extreme brevity of individual column heads. Some of the more common uses of spanner heads are as follows:

a. To indicate class or kind of information shown in the cells, particularly when this is not stated in the individual column captions.

Example A:

Males	
1945	1946

Example B:

Value of land	
Full owners	Part owners

b. To describe the classification shown in the next lowest level of box.—Simple cases are illustrated below. At times, the nature of the caption may be such that it may be thought of as referring to the next lowest level or to the cells, either or both, without likelihood of confusion. At other times, it may specifically refer to the next lowest level of box. (For cases where confusion might arise, see par. 1253.)

(1) Reference both to lower box-level and to cells.—Here the spanner caption is such as to apply equally, at least by implication, to both the next lower level and to the cells. In examples C and D the user will tend to assume that the cell entries represent the number of dams, or number of employed workers, unless some other unit of measure is specified clearly elsewhere.

Example C:

Dams	
Diversion	Storage

Example D:

Employed workers		
White	Negro	Other

(2) Reference to lower box-level only, not to cells.—Here the upper spanner has no direct relationship to the cell entries. It specifically describes the captions appearing in the next lowest level of box. In example E the unit of measure for the cells is not clear and must be specified or made clear elsewhere in the table. The cell entries might refer to number of dams, number of men employed in construction, storage capacity, water flow, cost, etc. In example F the cell entries might refer to the number of whites, Negroes, etc., but not necessarily. These combinations of heads are satisfactory, but must not be relied upon exclusively to supply the unit of measure for the cells.

Example E:

Type of dam	
Diversion	Storage

Example F:

Race		
White	Negro	Other

c. To carry descriptive words common to all subordinated boxes on next lowest level.—This is one of the most common uses of the spanner. In general, where two or more adjoining box captions begin or end with the same words, or involve the same concept, the common phrase or concept may be transposed to a spanner. (See par. 1224a.) Frequently, this releases space pressure in individual column

captions. It may, or may not, decrease the over-all depth of the boxhead. Where necessary, such a head may be made to "read in" by terminating it with a dash (—), but this should be avoided where possible. (See par. 1248a.)

Example F-1. Without spanner:

Municipally owned electric utilities	Privately owned electric utilities
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Example F-2. With spanner:

Electric utilities	
Municipally owned	Privately owned

Example G-1. Without spanner:

Wage rates per month, with board	Wage rates per month, without board
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Example G-2. With spanner:

Wage rates per month	
With board	Without board

Example H-1. Without spanner:

Price for 1939 crop	Price for 1940 crop	Price for 1941 crop
---------------------	---------------------	---------------------

Example H-2. With read-in spanner:

Price for crop of—		
1939	1940	1941

Note: Spanners should cover only distinctly related columns. The mere fact that two adjoining columns start or end with the same word or phrase does not, in itself, justify use of a spanner since they may be totally unrelated in terms of the presentation. The columns must be both adjoining and related.

d. To describe specific measure employed.—This is particularly useful when different panels employ different measures. Two general situations arise:

(1) Specification for all panels.—Here, the nature of the data are such that it is desirable to specify the measurement unit in spanners throughout the entire boxhead.

Example J:

Number		Percent	
1945	1946	1945	1946

Example K:

Thousands of pounds		Dollars	
1945	1946	1945	1946

(2) Specification for selected panels.—Frequently, the statistics are such that the title of the table, or other presentation feature, makes the unit of measurement obvious. In such cases it is not necessary to specify the unit of measure further, except for such panels as may depart from this normal expectation.

The most frequent case is represented by "Number." Where the measurement unit is unitary, the word "Number" usually may be omitted from the boxhead without loss of clarity. At times, advantage may be taken of this.

That is, where a table is divided into two panels, "Number" and "Percent," the "Number" section may be used for more general description instead of merely to specify "Number."

Example L-1. Right:

Total	Number			Percent of total		
	Employed	Seeking work	Other	Employed	Seeking work	Other

Example L-2. Preferred:

Total	In labor force			Percent of total		
	Employed	Seeking work	Other	Employed	Seeking work	Other

1253. Clarifying point of reference.—Spanners may refer to subspanners, to column captions, or to the cell entries themselves. Spanners must be written in terms of the framework in which they are to appear, not as something in themselves. Otherwise, the point of reference, though it may be clear to the designer, may not be made clear to the user. The designer, confronted by a specific problem of description, must write an appropriate spanner. The user must reverse this process; that is, upon reading the spanner, he must note its applicability. If the user cannot reconstruct readily what the designer had in mind, the spanner is defective.

a. Identification of major class or statement of universe.—Where the spanner states the universe involved, or states the major class being distributed, no difficulty is likely to arise. Usually, the applicability of such spanners is obvious.

Example A:

Urban population			
White		Nonwhite	
Male	Female	Male	Female

Example B:

Contractors			
Resident		Nonresident	
Number of establishments	Value of work performed	Number of establishments	Value of work performed

b. Description of subclassifications.—These spanners should be thought of as applying solely and strictly to the next lower level of box unless they specify otherwise. It follows that they should always appear immediately above the captions (whether column captions or subspanners) to which they refer.

Example C-1. Right:

Total	Sex			
	Male		Female	
	White	Non-white	White	Non-white

Example C-2. Wrong:

Total	Color			
	Male		Female	
	White	Non-white	White	Non-white

Example D-1. Right:

Total	Color			
	White		Nonwhite	
	Male	Female	Male	Female

Example D-2. Wrong:

Total	Sex			
	White		Nonwhite	
	Male	Female	Male	Female

(1) Description of numerical intervals.—Spanners describing classifications involving numerical intervals require special care in wording and use. Otherwise, since both the subcaptions and the cell entries will be composed of numbers, confusion may arise concerning the point of reference for the spanner.

Example E-1. Confusing:

(Is reference to cell entries or to intervals?)

Total	Number of children			
	None	1	2	3 or more

Example E-2. Clear:

(Number reference is obviously to intervals. Cell unit also is clear)

Total women	Women having specified number of children			
	None	1	2	3 or more

Example F-1. Confusing:

(Do the cell entries represent the number of persons in 2-person families, etc., or the number of families with 2 persons, etc.?)

Total	Number of persons in family				
	1	2	3	4	5 or more

Example F-2. Clear:

(Number reference is obviously to intervals. Cell unit also is clear)

All families	Families comprising specified number of persons				
	1	2	3	4	5 or more

c. **Unit of measure.**—Here too, confusion is possible unless the spanner is handled in terms of its surroundings. The same general problem arises as in par. 1253a, above.

In example G-2, below, does the "Percent" refer to the intervals shown in the subordinate caption, or does it mean that the cell entries are percentages? In this specific case, the reader can determine the answer by examining the cell entries. However, in more complex materials, the answer may not be apparent. Where possible, the spanner and column head treatment should be such as to avert uncertainty.

Example G-1. Clear:

Percent	
Under 45 years	45 and over

Example G-2. Confusing:

Percent	
Under 45	45 and over

Example H-1. Clear:

Percent by age	
Under 45 years	45 and over

Example H-2. Confusing:

Percent by age (years)	
Under 45	45 and over

d. **Use of "by" and "of" in spanners.**—In many cases, the use of "by," "of," or a similar term, in the spanner is likely to solve the general problem and add considerably to clarity.

The typical case is that given below where the use of either portion of the spanner standing alone would be confusing. The obvious need is to specify both the significance of the classification shown in the column heads and the unit of measure employed in the cells.

Example J-1. Confusing:

(What is the column-head classification?)

Number of farms		
\$1,000 to \$1,499	\$1,500 to \$1,999	\$2,000 and over

Example J-2. Confusing:

(What is unit in cells?)

Value of all farm products		
\$1,000 to \$1,499	\$1,500 to \$1,999	\$2,000 and over

Example J-3. Clear:

Number of farms by value of all farm products

\$1,000 to \$1,499	\$1,500 to \$1,999	\$2,000 and over
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1254. **Spanning total columns: General.**—The inclusion of a total column under a spanner depends, in part, upon the spanner wording and, in part, upon the relationship of the given panel to other panels in the table. The possibilities involved are too numerous for complete coverage here. A few common problems are discussed briefly.

a. **Statement of universe or presentation unit.**—In general, spanners comprising a statement of the presentation unit (or of the universe involved) should cover the total column. Otherwise the reader may find that the components have been adequately described but that the total has not been. In situations exemplified by example B-2, a minimum requirement would be to change the total caption to read "Total exports."

Example A-1. Right:

Number		
Total	Male	Female

Example A-2. Confusing:

Total	Number	
	Male	Female

Example B-1. Right:

Exports		
Total	U. S. merchandise	Reexports

Example B-2. Confusing:

Total	Exports	
	U. S. merchandise	Reexports

b. **Description of subclassification.**—At times, a spanner is used to describe the distribution which appears in the columns to the right of a total column, such as age or sex. Normally, this type of spanner should not cover the total column.

(1) **Minor application.**—In some instances this rule may seem academic. Thus, no reader is likely to be confused if the spanner "Sex" covers the total column, even though such treatment is theoretically incorrect. (The example is over-simplified. In practice, the spanner is unnecessary for the subject matter used.)

Example C-1. Right:

Total	Sex	
	Male	Female

Example C-2. Poor style:

Total	Sex	
	Male	Female

(2) **Major application.**—At times, serious misapprehension may result from violation of this rule. The type of error shown in example D-2, below, may well pass unnoticed by the table-designer with whom the correct style has not become an established habit.

Here, the inclusion of the total column under the spanner results in a description of the column as showing "Total value," a term normally used to signify the aggregate value in dollars. The case is thereby misstated since the total column in example D-2 is intended to show the total number of units which are being distributed according to value.

Even though this total *did* represent "Total value," this form of presentation would still be defective since it would leave the way open for misunderstanding in the opposite direction. Aggregates of value, amounts, etc., should always be signalled clearly. Conversely, caption treatment of totals of units being distributed should avoid any possibility of misapprehension. Examples D-1 and D-2 would be clarified somewhat if the total captions were expanded to read "Total units," as in examples E-1 and E-2.

Example D-1. Right:

			Value	
Total			Under \$1,000	\$1,000 and over

Example D-2. Confusing:

			Value	
Total	Under \$1,000	\$1,000 and over		

Example E-1. Preferred:

			By value	
Total units			Under \$1,000	\$1,000 and over

Example E-2. Better than D-2 but still undesirable:

			Total units by value	
Total units	Under \$1,000	\$1,000 and over		

c. "Double-duty" totals.—At times two or more distributions may appear in the boxhead, and each may add independently to an identical total. Usually, repetition of the total column is undesirable in such cases.

Normal solution: Cover each distribution with its own spanner. Then separate the panels by a medium-weight (letterpress, No. 3) rule. (See sec. 13-C for discussion of vertical rules.) Place the total column at the left. Do not include it under the first spanner; do not repeat it for the second panel. (In the case of sex and color, it is obvious that the same total will serve for both. In the more complex classifications, the relationship may not be so clear.)

Example F-1. Right:

("Double-duty" total; serves both panels)

			By sex		By color	
Total			Male	Female	White	Non-white

Example F-2. Confusing:

(Where is "Total" for color distribution?)

			Sex		By color	
Total	Male	Female	White	Non-white		

1255. Effect of spanner omissions.—At times, space or other considerations may make it necessary or desirable to omit an upper spanner ordinarily deemed necessary. They may even make it necessary to delete all spanners. In such cases, special precautions are desirable. In particular, the captions of the total columns and the types of vertical rules employed should be reviewed and necessary adjustments made. Two typical cases are described below.

a. Omission of upper spanner only, leaving lower spanners.—Where the box contains several distributions, each with its own total, both major and minor spanners may appear; such as universe spanners establishing major panels, and class-description subspanners. Removal of the upper spanner in such cases requires adjustments in the material remaining.

Example A-1. Complete form:

			All workers		Workers reporting marital status		
Total	Sex		Total	Marital status			
	Male	Female		Single	Married	Other	

(1) Spanner removal necessitates changes.—With the upper spanner removed (example A-2, below), note that (a) the total columns have no indication of the class referred to; and (b) the presence of the two parallel total rules rising to the same level is objectionable. Since no heavy rule or medium rule intervenes, the range of influence of the left-hand parallel rule includes the second total column. This picture is confusing.

Example A-2. Wrong (Result of removing spanners without adjusting wording or vertical rules. Class descriptions for total columns are missing, and the two parallel vertical rules rising to the same level are confusing):

Total	Sex		Total	Marital status		
	Male	Female		Single	Married	Other

(2) Suggested treatment.—Three suggestions are illustrated below. In all three, the classes referred to by the totals are made clear, and the range of influence of the left-hand parallel rule is stopped after the "Female" column, as it should be.

Example A-3 is preferable since it reestablishes the basic panel arrangement, even though neither spanner properly belongs over the total column. (See example C-2, par. 1254b.)

Example A-3. First choice:

			Sex		Marital status		
All workers	Male	Female	Workers reporting	Single	Married	Other	

In example A-4, the right-hand total caption is cumbersome.

Example A-4. Second choice:

All workers	Sex		Workers reporting marital status	Marital status		
	Male	Female		Single	Married	Other

In example A-5 (not recommended), the parallel rule used to separate the table sections is fairly effective but this usage is undesirable in itself. (See par. 1330b.) Also, it forces the designer to use medium weight rules for total rules. (See par. 1328d.)

Example A-5. Not recommended:

All workers	Sex		Workers reporting marital status	Marital status		
	Male	Female		Single	Married	Other

b. Omission of all spanners.—In a badly squeezed table, all spanners, even those normally essential, may have to be omitted. This is permissible only as a last resort.

Example B-1. Intermediate stage (same as example A-3; for full form, see Example A-1):

All workers	Sex		Workers reporting marital status	Marital status		
	Male	Female		Single	Married	Other

(1) *Spanner removal necessitates changes.*—In example B-2, below, note that the class description for the right-hand total column is missing and that the box is no longer visibly divided into two independent sections.

Example B-2. Confusing:

All workers	Sex		Workers reporting marital status	Marital status		
	Male	Female		Single	Married	Other

(2) *Suggested treatment.*—The following suggestion is similar to that proposed for cases in which only the upper spanner is removed.

In example B-3, the right-hand total caption has been clarified and the box sectionalized with a medium weight rule.

Example B-3. First choice:

All workers	Sex		Workers reporting marital status	Marital status		
	Male	Female		Single	Married	Other

In example B-4 (not recommended), the rule usage has been reversed. A parallel is used as the dividing rule; medium weight rules are used for total rules. (See pars. 1328d and 1330b.)

Example B-4. Not recommended (see example A-5, above):

All workers	Sex		Workers reporting marital status	Marital status		
	Male	Female		Single	Married	Other

Sec. 12-F. The Banner Head (1261-1266)

1261. Definition.—The banner head is a special type of spanner extending across and covering the entire boxhead of the table (except the stub box). Normally, it is undesirable. Since it applies to the table as a whole, it represents an item better covered in the title or headnote, or better presented as a main centered head in the stub. Sound usage tends to restrict it sharply to the circumstances indicated below. A good rule is: When in doubt, avoid the banner head.

1262. Acceptable use.—In general, banner heads are best reserved for two principal uses:

a. **To emphasize an essential qualification.**—At times, it may be essential to warn the reader of a highly important qualification which must be kept constantly in mind if the data are not to be misinterpreted. Ordinarily, this can be taken care of in the title, headnote, or in the stub. On rare occasions, however, a banner head is justified.

b. **To emphasize a major distinction between standard tables.**—A common objective in Bureau of the Census tables is to provide strictly comparable coverage for different universes or areas at different points in time. The customary method is to employ a series of standard tables. Each is identical in form but the statistics shown relate, in each case, to a different universe or time period.

(1) **Universe distinction.**—Where each table provides a distribution for a different major class or universe, the distinctive feature should be emphasized by placing that feature at, or near, the beginning of the table title. Here, banner heads are undesirable.

(2) **Area and time distinctions.**—Where area and time differences are the distinctive features, title-distinction might rest on starting the title with a key phrase (THE NORTH, 1940—), but this use of the key phrase technique is not desirable. Otherwise, the reader must note the difference in the area and time segments at the title's end.

Where the titles are brief, end-differences will stand out fairly well. Where the titles are long, end-differences tend to be overlooked. In the latter case, the use of the banner head may be justified.

The following example assumes a series of six tables, identical in stub and box, with long descriptive titles. The titles are assumed to be identical with the exception of the area and time segments at the end.

Example A. Banners are useful if the preceding portion of title is long and involved:

TABLE 1.— . . . FOR THE NORTH: 1940

Color and marital status	The North, 1940							
	All ages	Under 5 years	5 to 14 years	15 to 24 years	25 to 34 years	35 to 44 years	45 to 54 years	55 and over

TABLE 2.— . . . FOR THE NORTH: 1930

Color and marital status	The North, 1930							
	All ages	Under 5 years	5 to 14 years	15 to 24 years	25 to 34 years	35 to 44 years	45 to 54 years	55 and over

(Tables 3 to 6 continue in the same vein and provide statistics for the South, 1940; the South, 1930; the West, 1940; and the West, 1930.)

1263. Improper use of banner heads.—Banner heads should not be used casually. They should be reserved for emergencies. In particular, their use should be avoided to specify something already stressed in the table title or which can as well be placed in a headnote or in a stub center head. Examples of these uses follow:

a. To specify a universe clearly emphasized in the table title.

Example A. Banner is useless:

TABLE 7.—EMPLOYED WORKERS BY AGE AND RACE: 1940

Age	Employed workers			
	All classes	White	Negro	Other races

b. To specify a general qualification of the table better placed in a headnote.

Example B-1. Banner unnecessary; place in headnote:

TABLE 9.—NATIONAL INCOME BY INDUSTRIAL DIVISIONS: 1937 TO 1941

Industrial division	Millions of dollars				
	1937	1938	1939	1940	1941

Example B-2. Improved:

TABLE 9.—NATIONAL INCOME BY INDUSTRIAL DIVISIONS: 1937 TO 1941

Industrial division	[Millions of dollars]				
	1937	1938	1939	1940	1941

c. To specify an area, time period, or general class where the statement can as effectively be placed as a center head at the top of the stub (not in stub box).

Example C-1. Is banner essential?

Area and age	All experienced workers				
	All classes	Native white	Foreign-born white	Negro	Other
The State.....					
Under 45 years.....					
45 and over.....					
Urban.....					
Under 45 years.....					
45 and over.....					
* * * *					

Example C-2. Will stub center head serve the purpose?

Area and age	All classes	Native white	Foreign-born white	Negro	Other
ALL EXPERIENCED WORKERS					
The State.....					
Under 45 years.....					
45 and over.....					
* * * *					

1264. Quasi-banner heads: General.—This is a spanner deceptively similar to the banner head in physical appearance since the only difference is that the quasi-banner does not cover the total column.

Stub box	A banner head			Stub box	Total	A quasi-banner		
	Total							

This similarity in physical appearance promotes overuse and abuse of the quasi-banner, just as in the case of the banner head. That is, the quasi-banner also tends to be used for general descriptive or qualifying statements better expressed elsewhere.

However, the quasi-banner, used properly, performs one or both of two extremely important functions. Specifically, it may clarify an otherwise unintelligible series of column heads, or it may facilitate reference to the column heads by eliminating repetitive words or phrases.

1265. Quasi-banner heads: Classification description.—For purposes of this discussion, classifications may be divided into two main groups: Those normally self-identifying, and those normally requiring explanation or description. Each group is discussed briefly below in terms of use of the quasi-banner.

a. Classification normally self-identifying.—Many classifications are so commonly used that identification is unnecessary, although it may be essential to indicate the applicable group.

Example: To reduce the case to its simplest form, a table with the three columns "Total," "Male," and "Female," does not need "Sex" inserted as a quasi-banner to identify the sex classification as such. Further, in a series of tables devoted entirely to the characteristics of the total population, it would scarcely be necessary to specify "Sex of person." In such cases, the quasi-banner is rarely justified.

However, if the table deals with characteristics of individuals in terms of their family connections, or with persons in family groups as such, it might be imperative to make clear that "Sex of head" is meant, not "Sex of child" or "Sex of principal wage earner," etc. Here, the quasi-banner performs a valuable function.

b. Classification normally requiring identification or description.—Most classifications involving numerical intervals are of this type. Thus, the expression "Under 5" means nothing in itself. It might mean years of age, years of schooling, thousands of acres, thousands of proof gallons, millions of dollars, etc. In general, where numerical intervals appear in the boxhead, identifying and explanatory spanners are essential. Where the box is devoted to a single classification adding to a total column at the left, the use of the quasi-banner may be desirable. However, such spanners should be clearly descriptive of the column-head classification, as such; if descriptive of cell entries, the total column should be covered also. (See par. 1253.)

1266. Quasi-banner heads: Reduction of wordy column heads.—Frequently, wordy column heads may be avoided by use of descriptive spanners. The saving is likely to be particularly great where identification or descriptive problems demand that a given word or phrase be repeated in each individual column head. (See par. 1252c.) Here, the quasi-banner is useful. The following example assumes that the stub also is in years, such as years of school completed. This makes specific reference to age important in the boxhead.

Example A-1. Column heads meaningless:

Total	Under 15	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over
-------	----------	----------	----------	----------	----------	----------	----------	----------	-------------

Example A-2. Column heads wordy:

Total	Under 15 years old	15 to 24 years old	25 to 34 years old	35 to 44 years old	45 to 54 years old	55 to 64 years old	65 to 74 years old	75 to 84 years old	85 and over
-------	--------------------	--------------------	--------------------	--------------------	--------------------	--------------------	--------------------	--------------------	-------------

Example A-3. Quasi-banner clarifies the picture:

Total	Age (years) ←								
	Under 15	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85 and over

Sec. 12-G. The Undercut Spanner (1271-1272)

1271. Definition.—The undercut spanner is a spanner appearing on the lowest level of box directly over, and spanning, two or more columns. Since it appears *below* the individual column heads, it breaks the column rules and separates the column captions from the data which they describe. For this reason, it is generally undesirable.

Example A-1. With undercut spanner:

Trailers, etc.	Motor-cycles, etc.	Receipts	
		Total receipts	Registration
		Thousands of dollars ←	

Example A-2. Undercut avoided:

Trailers, etc.	Motor-cycles, etc.	Receipts (thousands of dollars) ←	
		Total receipts	Registration

1272. Conditions of use.—The following brief discussion indicates instances where use of the undercut spanner is justified and where it is not justified. In general, its use should be confined to indication of presentation unit or unit of reference.

a. Justified use.—The undercut spanner is justified primarily where *all* of the following conditions are present:

(1) The presentation unit for the given group of adjoining columns differs from that used in the remainder of the table.

(2) It cannot be included parenthetically within each of the individual column heads concerned.

(3) There is no way to place it in an upper spanner in parentheses after the spanner statement, or as a spanner head in itself.

(4) It is too long to appear in italic (letterpress), or in parentheses (if typewriter), in each individual column just below the boxhead and above the first column entry.

(5) Specification in a headnote, as "Amounts are in thousands of dollars," is impracticable or undesirable.

b. Not justified.—Its use is not justified—

(1) Where the unit-indicator is brief and can readily be repeated outside the box and placed within the field at the head of each column where it belongs.

(2) Where other of the above-mentioned means of presentation can be made to serve the purpose.

Example A-1. Avoid if possible:

Census year	Number of establishments	Wage earners (average for the year)	Wages	Value of products	Value added by manufacture
			In thousands of dollars		

Example A-2. Preferable:

Census year	Number		Thousands of dollars		
	Establishments	Wage earners (average for the year)	Wages	Value of products	Value added by manufacture

Chapter 13

HORIZONTAL AND VERTICAL RULES (1301-1334)

Sec. 13-A. General (1301-1302)

1301. Definitions.—The terms "horizontal rule" and "vertical rule" as used here cover all types of continuous horizontal and vertical lines appearing as part of the table.

1302. Terminology: "Dashes" versus "rules."—In typographical language a rule is sometimes referred to as "dashes." Thus, in the *G. P. O. Style Manual* (revised edition, January 1945, p. 127) the following statement appears: "152. Rules may be used in place of dashes in a crowded table."

Throughout this manual, the term "rule," as in "horizontal rule" or "vertical rule," covers both "dashes" and "rules," as used above. The difference is a mechanical matter that does not directly affect the table-designer. The following statement is for information purposes only and does not affect the ensuing discussion.

a. "Dashes."—A close scrutiny of tabular rules in letterpressed (type-set) publications of the Bureau of the Census will reveal that the horizontal rules are not continuous, but are made up of tiny, closely-joined segments. These small individual segments, set by machine, are the "dashes" referred to in the *G. P. O. Style Manual*. "Rules" are frequently made up in this way since the dashes do not require hand-insertion, and the deletion or repair of any part of such a "rule" can be made without handling the entire line.

b. "Rules."—Strictly speaking, a "rule" is a long strip of metal with a polished printing surface which must be cut to the proper length and inserted in the type page by hand. For technical reasons, this true type of "rule" can be cast to occupy less space than the "dashes," hence it is used where the table is crowded.

c. "Dashes" versus "leaders."—"Dashes" should not be confused with "leaders." The leader line is one in which the tiny dashes do not run together, but are separated by white space. Therefore, the leader line, when printed, is a broken line. In contrast, printed "dashes" form a continuous line looking like a rule. The comparative effect is the same as if, on the typewriter, one were to use a row of hyphens (lined up at the bottom of the line) for leaders (not recommended), and the conventional underscore for "dashes" or rules. The "dash segments," shown below have had spaces inserted between each to illustrate their structure.



Sec. 13-B. The Horizontal Rule (1311-1316)

1311. **General.**—The term “horizontal rule” as used here covers all types of continuous horizontal lines appearing as part of the table.

1312. **Types of horizontal rules.**—Two types of horizontal rules are used in Census tables: The *single* rule and the *parallel* (double) rule. As the name implies, the single rule is composed of a single line. The parallel (double) rule is composed of two parallel lines run closely together, each of the same weight or heaviness as the single rule. With the exceptions noted below, the table-designer need have no concern with mechanical differences between rule practices in letterpress (type-set) composition and in typewriter-offset.

a. **Total rule versus boldface.**—Letterpress and typewriter-offset differ radically at this point.

(1) **Letterpress.**—Group totals and grand totals are set in boldface type. The single rule is used sparingly; the parallel rule is reserved for grand totals, where used at all.

Example A-1:

All classes	75	10	20	25	20
White.....	50	5	15	20	10
Negro.....	17	4	3	1	9
Other races.....	8	1	2	4	1

Example A-2:

Adams County	75	10	20	25	20
White.....	50	5	15	20	10
Negro.....	17	4	3	1	9
Other races.....	8	1	2	4	1
Brown County	100	11	33	45	11
White.....	75	8	20	39	8
Negro.....	15	2	10	1	2
Other races.....	10	1	3	5	1

(2) **Typewriter offset.**—Since boldface is not available on the standard typewriter, the single rule is used to set off group totals. *Avoid hand-drafted horizontal parallel rules in offset work; use the single rule instead and rely on indent and spacing to carry the story.* In all but rare instances the use of the horizontal parallel rule is not essential.

Example B:

All classes	75	10	20	25	20
White.....	50	5	15	20	10
Negro.....	17	4	3	1	9
Other races.....	8	1	2	4	1

b. **Offset space requirements.**—The insertion of horizontal rules under totals and subtotals necessarily increases the depth of the page. Also, it may make it necessary to increase the space above the stub entry of the line that is underscored. Otherwise a subtotal may appear to be a subentry of the preceding group, instead of a total for the following group. The following details are provided for informational purposes. The reference to half-space refers to typewriters equipped for half-ratchet turns, an extremely useful device in statistical typing.

(1) **Single rule.**—No more than one-half typewriter line of space is needed for the rule. However, one full space (line) should be left open above the subtotal or total line. If one line is left open below for the single total-rule, then one and one-half lines, preferably two lines, should be left free above the total line. Furthermore, the underscore rule should be placed up under the entries underscored; it should not be placed midway in the space left for it. (See par. 1313e.)

Example C-1. Desirable spacing:

Other races.....	2
All classes....	75
White.....	50
Negro.....	20
Other races.....	5

Example C-2. Acceptable spacing:

Other races.....	2
All classes....	75
White.....	50
Negro.....	20
Other races.....	5

Example C-3. Bad spacing:

Other races.....	2
All classes....	75
White.....	50
Negro.....	20
Other races.....	5

(2) **Parallel rule.**—As indicated above, *avoid horizontal parallel rules in offset work.* Where used, one full typewriter line of space should be allotted. This means at least one and one-half, preferably two, lines should be left blank above the total line.

Example D-1. Desirable spacing:

Other races.....	2
All classes....	75
White.....	50
Negro.....	20
Other races.....	5

Example D-2. Acceptable spacing:

Other races.....	2
All classes....	75
White.....	50
Negro.....	20
Other races.....	5

Example D-3. Incorrect spacing:

Other races.....	2
All classes....	75
White.....	50
Negro.....	20
Other races.....	5

1313. **The single rule: Function and purpose.**—The single horizontal rule is used for four distinctive purposes in letterpress. In offset, it serves the same four purposes plus one additional purpose. These purposes are listed and illustrated below with a statement, in each case, of the horizontal extension limits of the rules. Since various rules are shown in the illustrations, an arrow (→) points to the rule under discussion in each example.

a. **Bottom rule of boxhead.**—Runs full width of table. Sets off boxhead from remainder of table.

Example A:

	All classes		White	
Cities	Male	Female	Male	Female
Anderson.....				
Ashton.....				
* * * *				

(1) **With tracer numbers.**—Extension of rule to cover tracer columns depends on presence or absence of entry in column box. If the tracer-column box is left blank, the bottom rule of boxhead does not cover the column. If

an entry ("Line No.") appears, extend the bottom rule of the boxhead clear across. Examples below show a left-hand tracer column only; identical treatment is applicable for the right-hand tracer column.

Example B-1. No entry in tracer box:

Cities	
1	Anderson.....
2	Ashton.....
	* * * *

Example B-2. Entry in tracer box:

Line No.	Cities
1	Anderson.....
2	Ashton.....
	* * * *

b. End or bottom rule of table.—Runs full width of table. It designates the end of the table, reading downward; that is, the end of the stub, not the end of the box. It is not used to indicate the bottom of the page, as such. (For detailed discussion of the proper use of this rule, see par. 1316, below.) Indentation of the final stub caption, and the presence or absence of tracer columns, has no effect on extension of the bottom rule to full table width.

Example C-1:

* * * *	
All classes.....	80 65
White.....	50 40
Negro.....	25 23
Other races.....	5 2

Example C-2:

* * * *	
56 Pacific.....	80 65
57 Washington.....	50 40
58 Oregon.....	25 23
59 California.....	5 2

c. Terminal rule for additive sections.—Runs width of field only; does not run through stub. Its use is optional. (See par. 1314b, below, for examples and for discussion of use of parallel rule to set off additive grand total blocks.

d. Upper and lower rules of field spanners.—Runs width of field only; does not run through the stub since stub box is not repeated. Field spanners are a part of the field, but their presence necessarily affects stub spacing.

Example D:

* * * *		9	3	4	2
Other races.....					
		New York City		Bronx Borough	
All classes.....		80	65	32	21
White.....		50	40	20	15
Negro.....		25	23	10	5
Other races.....		5	2	2	1

e. Offset only: Total and subtotal rule.—Runs width of field only; does not run through the stub. It is used to distinguish additive totals in offset as a substitute for boldface in letterpress (type set). (In letterpress, when boldface is used for additive total captions and their field entries, no total rule is ordinarily used except for grand totals or aggregates which represent summation of major group totals. These sometimes require use of both boldface and a total rule to set them off sufficiently.)

Example E-1. Subentries add to total:

Other races.....	* * * *	7	4	2
All classes.....		100	36	19
White.....		75	25	10
Negro.....		20	9	7
Other races.....		5	2	2

Example E-2. Right—subentries add except for missing component explained in footnote:

All ages 1.....	100	28	25
Under 45 years.....	75	20	15
45 years and over.....	20	5	8

1 Includes age not reported, not shown separately.

Example E-3. Wrong (subentries do not add to total):

Fillmore County, all ages.....	100	28	25
21 years and over.....	55	14	7

Note: The offset total rule should not be used excessively. Where the stub is composed of many 2-, 3-, and 4-line classifications, the insertion of many total rules may detract from the clarity of the presentation, rather than add to it. Here again, common sense must be enlisted. A table that is a maze of horizontal rules rarely reflects sound presentation. The same rule applies to excessive use of boldface lines in letterpress, particularly to the combined use of boldface and the total rule.

1314. The parallel rule: Function and purpose.—The parallel (double) rule may be used for four purposes, both in letterpress and typewriter-offset. However, its use in offset should be avoided where possible because of the tendency to allow excessive space between component lines of the rule.

Where used in offset, the rules should be drafted with fine lines and the space between held to about twice the width of the line. A full typewriter, or half typewriter, space between the component rules is too much, even allowing for the tendency to fill when reduced. The parallel horizontal rule is not intended to *frame* the space left for it; neither does it represent two single rules in succession. It is a double rule, intended as a unit, and should be drafted accordingly. Where used to set off important total entries (and space permits), it should be placed up under those entries; that is, closer to the entries to which it relates than to the line below to which it does not relate.

a. Top rule of boxhead.—Runs full width of table, including tracer columns. It is used at the top of the boxhead, whether the boxhead is at the top of the table-page, or is the boxhead of a second or following deck. In the examples, an arrow (→) points to the rule being discussed.

(1) *Divide tables.*—In a "divide" table, the entire boxhead is repeated at intervals down the page, once for each deck. Here the parallel rule is used above each such boxhead. (The "total rules" have been omitted as not pertinent to the example.)

Example A. Right (divide table, entire boxhead repeated):

TABLE 8.—FOREIGN-BORN WHITE, BY COUNTRY OF BIRTH.....

Country of birth	The State			Urban		
	Total	Male	Female	Total	Male	Female
All countries.....						
England.....						
Scotland.....						
Azores * * *						
All other.....						

Country of birth	Rural-nonfarm			Rural-farm		
	Total	Male	Female	Total	Male	Female
All countries.....						
England.....						
Scotland.....						
Azores * * *						
All others.....						

(2) Tables with field spanners.—Since the entire boxhead is not repeated, neither is the stub box. The parallel top rule is *not repeated* and the single rules employed at top and bottom of field spanners are *not carried* across the stub. (See also par. 1313d, above.) The “total rules” have been omitted as not pertinent to the example.

Example B. Right as shown here; use of parallel above lower field spanner would be wrong (table with field spanners):

Country of birth	Total	Male	Female	Total	Male	Female
	The State			Urban		
All countries.....						
England.....						
Scotland.....						
* * * *						
All other.....						
	Rural-nonfarm			Rural-farm		
All countries.....						
England.....						
Scotland.....						
* * * *						
All other.....						

b. Terminal rule for additive total block.—Sometimes used, but not recommended. Extends width of field only. This rule indicates the termination of a total section which represents the summation of corresponding lines in the subordinate sections. (The subordinate sections are each terminated with a single rule if the additive total section carries a parallel terminal rule.)

Example C:

United States.....
New England.....
Middle Atlantic.....
East North Central.....
West North Central.....
South Atlantic.....
East South Central.....
West South Central.....
Mountain.....
Pacific.....
New England:
Maine.....
New Hampshire.....
Vermont.....
Massachusetts.....
* * * *

Example D. Not recommended:

THE STATE			
All ages.....	325	80	40
Under 45 years.....	195	55	25
45 and over.....	130	25	15
URBAN			
All ages.....	200	55	25
Under 45 years.....	120	40	15
45 and over.....	80	15	10
RURAL			
All ages.....	125	35	15
Under 45 years.....	75	20	10
45 and over.....	50	15	5

Note: The above usage is not recommended because (1) it rarely signals a fact not readily ascertainable by a glance at the stub centered heads or total captions, and (2) it clouds the more essential use of horizontal parallel rules to set off one table section from another, as described in par. 1314c, below.

c. To set off one table section from another.—Runs full width of field only. This use of the parallel rule is easily abused. In general, it is well *not* to use the parallel rule in this way unless one of the listed situations exists. In particular, omit it if the conditions of use will require its appearance after every block in the stub.

(1) To set off comparatively unrelated sections.—It is sometimes desirable to include in a stub a section which, in terms of classification, is comparatively unrelated to the rest of the stub. Usually such a section is placed at the end of the table and may be set off by parallel rules.

Example E. Assume in the following that the stub is comprised of three sections of housing data, followed by one section (at the end) of basic population figures. The example shows only the last two sections of the stub.

VALUE OF HOME
All owner-occupied units.....
Number reporting value.....
Under \$300.....
\$300 to \$499.....
\$500 to \$699.....
\$700 to \$999.....
\$1,000 and over.....
POPULATION
All occupants.....
White.....
Nonwhite.....
Under 15 years old.....
15 to 44 years old.....
45 years old and over.....
Single.....
Married.....
Widowed and divorced.....

(2) *To group closely related blocks.*—If, in a given table, one group of stub blocks is more closely related than are the remaining blocks, the more closely related blocks may be set off in a special section by means of parallel rules. This is the obverse of the case cited above. This usage should be restricted closely.

Example F. Stub blocks have been condensed for purposes of the example:

TYPE OF STRUCTURE	
All dwelling units.....	_____
1-family detached.....	_____
1-family attached.....	_____
Other.....	_____
YEAR BUILT	
All dwelling units.....	_____
1935 to 1940.....	_____
1930 to 1934.....	_____
Other.....	_____
RACE OF OCCUPANTS	
Occupied units.....	_____
White.....	_____
Nonwhite.....	_____
PERSONS PER ROOM	
Occupied units.....	_____
1 person.....	_____
2 persons.....	_____
3 or more persons.....	_____
GROSS RENT	
Tenant-occupied units.....	_____
Under \$14.....	_____
\$15 to \$39.....	_____
\$40 and over.....	_____
FURNITURE IN RENT	
Tenant-occupied units.....	_____
Furniture included.....	_____
Furniture not included.....	_____

(3) *To make clear that successive blocks of data each add to a total line shown only once.*—Where a given universe is repeatedly classified in different ways (see each section in above example), it sometimes is undesirable to repeat the identical total line at the top of each block. Two solutions are common:

Where no subtotal rules appear.—If no other total or subtotal rules appear in the stub, the insertion of a total rule under the entries for the several universe total-lines will sectionalize the page sufficiently. (See example G-1.) Colon lines or centered heads usually appear above each minor grouping. However, if colon lines or centered heads are used, the single presentation of the universe total should appear above the colon line or head of the first block, not as an integral part of it. (See example G-2.)

Example G-1:

All dwelling units.....	_____
By type of structure:	
1-family detached.....	_____
1-family attached.....	_____
Other.....	_____
By year built:	
1935 to 1940.....	_____
1930 to 1934.....	_____
Other.....	_____
All occupied units.....	_____
By race of occupants:	
White.....	_____
Nonwhite.....	_____
By persons per room:	
1 person.....	_____
2 persons.....	_____
3 or more persons.....	_____
Tenant-occupied units.....	_____
By gross rent:	
Under \$14.....	_____

Example G-2:

All dwelling units.....	_____
TYPE OF STRUCTURE	
1-family detached.....	_____
1-family attached.....	_____
Other.....	_____
YEAR BUILT	
1935 to 1940.....	_____
1930 to 1934.....	_____
Other.....	_____
All occupied units.....	_____
RACE OF OCCUPANTS	
White.....	_____
Nonwhite.....	_____
PERSONS PER ROOM	
1 person.....	_____
2 persons.....	_____
3 or more persons.....	_____

Where other subtotal rules appear.—Here, the effect of inserting more total rules (for the universe totals) will be negligible since the eye will not select them readily from the other total rules. The simplest solution is to introduce each subblock either with a colon line ("By :") or with a centered head, and sectionalize by use of the parallel rule between the two sections.

Example H-1. With parallel rules:

All dwelling units.....	_____
OCCUPANCY STATUS	
Owner occupied.....	_____
Tenant occupied.....	_____
Vacant, for sale or rent.....	_____
Vacant, not for sale or rent.....	_____
STATE OF REPAIR	
Needing major repairs.....	_____
Not needing major repairs.....	_____
Not reporting.....	_____
NUMBER OF PERSONS	
All occupied units.....	_____
1 person.....	_____
2 persons.....	_____
3 or more persons.....	_____
Tenant-occupied units.....	_____
1 person.....	_____
2 persons.....	_____
3 or more persons.....	_____
Vacant units, for sale or rent	
_____	_____
ORDINARY OR SEASONAL	
Ordinary.....	_____
Seasonal.....	_____
TYPE OF STRUCTURE	
1-family detached.....	_____
1-family attached.....	_____
Other.....	_____

Example H-2. Without parallel rules—undesirable:

All dwelling units.....	_____
OCCUPANCY STATUS	
Owner occupied.....	_____
Tenant occupied.....	_____
Vacant, for sale or rent.....	_____
Vacant, not for sale or rent.....	_____
STATE OF REPAIR	
Needing major repairs.....	_____
Not needing major repairs.....	_____
Not reporting.....	_____
NUMBER OF PERSONS	
All occupied units.....	_____
1 person.....	_____
2 persons.....	_____
3 or more persons.....	_____
Tenant-occupied units.....	_____
1 person.....	_____
2 persons.....	_____
3 or more persons.....	_____
Vacant units, for sale or rent.	
_____	_____
ORDINARY OR SEASONAL	
Ordinary.....	_____
Seasonal.....	_____
TYPE OF STRUCTURE	
1-family detached.....	_____
1-family attached.....	_____
Other.....	_____

d. Grand-total or aggregate rule.—Runs width of field only; does not extend into stub. Usually, this rule distinguishes a grand-total or aggregate line which represents a summation of additive group-total lines which, in turn, are distinguished by single total-rules.

(1) *Use restricted.*—In general, this rule should be avoided in offset. It is recommended only where the aggregate is of unusual significance, or is not commonly shown; or where the use of the single total-rule may reasonably result in misunderstanding of total and subtotal interrelationship.

Example J:

Aggregate.....	=====	←
Continental United States.....	=====	
Territory in 1790.....	=====	
Louisiana Purchase.....	=====	
Florida.....	=====	
* * * *		
Territories and possessions.....	=====	
Alaska.....	=====	
Hawaii.....	=====	
* * * *		

1315. End or bottom rule of table: General.—Problems concerning placement of the end or bottom rule of the table are largely confined to situations in which the purpose or significance of the end rule is misunderstood.

Definition.—The end or bottom rule of the table is a horizontal single (hairline) rule placed at the bottom end of the table and extending across the full width of the table-page.

a. The end rule is more properly called the “bottom rule.” It denotes the end of the table reading downward, the bottom end; not the end of the table reading across, the right-hand end or edge. That is, it indicates the end of the stub presentation for the categories shown in the boxhead on the given page.

b. Repetition of stub caused *exclusively* by additional boxhead classifications requires insertion of the end rule upon completion of each such repetition.

c. “Repetition” of stub under different center heads *which appear at the top of, or within, the stub* does not require insertion of the end rule at the end of each such “repetition,” since the repetition is not complete.

d. In divide tables, where the stub is so short that the boxhead is continued in decks on the same page, the same principle applies. However, the parallel top rule of the repeated box for the deck below makes the end rule unnecessary except for the last deck on the page. Of course, if the last deck is incomplete (carried over to the next page) the end rule is not shown until the end of that deck.

1316. End or bottom rule of table: Specific.—The following examples will clarify the above general discussion. (They are illustrated in fig. 20.) Note that the distinction between “bottom end” and “right-hand end or edge” is academic as long as the classifications shown in the boxhead can be presented in one page or less.

a. **Single-page or partial-page tables.**—End rule will appear at the bottom of the table page. (See fig. 20, examples A-1 to A-3, inclusive.)

FIGURE 20.—PLACEMENT OF BOTTOM RULE (See par. 1316)

Group A. Single-page or partial-page tables

Example A-1. Narrow table:

Age	Total	Male	Female
All ages.....			
Under 5.....			
5 to 14.....			
15 to 24.....			
25 to 34.....			
35 to 44.....			
45 to 54.....			
55 to 64.....			
65 to 74.....			
75 and over.....			

Example A-2.¹ Half-measure table:

Age	Total	Male	Female	Age	Total	Male	Female
All ages.....							
Under 5.....				35 to 44.....			
5 to 14.....				45 to 54.....			
15 to 24.....				55 to 64.....			
25 to 34.....				65 to 74.....			
				75 and over.....			

¹ In any fractional-measure table, if the end rule belongs at the bottom of the last partial-measure shown on the page, it is extended across the entire table.

Example A-3. Narrow-divide table:

Age	Total	White	Negro
All ages.....			
Under 5.....			
5 to 14.....			
15 to 24.....			
25 to 34.....			
35 to 44.....			
45 to 54.....			
55 to 64.....			
65 to 74.....			
75 and over.....			

Age	Indian	Chinese	Other
All ages.....			
Under 5.....			
5 to 14.....			
15 to 24.....			
25 to 34.....			
35 to 44.....			
45 to 54.....			
55 to 64.....			
65 to 74.....			
75 and over.....			

FIGURE 20.—PLACEMENT OF BOTTOM RULE (See par. 1316)—Con.

Group B. 1-page box, multipage stub¹

Example B-1. Continuing stub:

(P. 1 of 2 pp.)				(P. 2 of 2 pp.)			
Age	Total	Male	Female	Age	Total	Male	Female
All ages.....				25 to 34.....			
Under 5.....				35 to 44.....			
5 to 14.....				45 to 54.....			
15 to 24.....				55 to 64.....			
				65 and over.....			

Example B-2. Continuing stub with changing center heads:

(P. 1 of 2 pp.)				(P. 2 of 2 pp.)			
Age	Total	Male	Female	Age	Total	Male	Female
WHITE				NONWHITE			
All ages.....				All ages.....			
Under 5.....				Under 5.....			
5 to 14.....				5 to 14.....			
15 to 24.....				15 to 24.....			
25 and over.....				25 and over.....			

¹ The expression "1-page box" means that after the first page the entire box is repeated without change, spanner heads and all. The term "multipage stub" means that the stub entries differ from page to page, even though the sole difference lies in variation of a center head at the top of the stub on each page.

Group C. 1-page stub, multipage box¹

Example C-1. Continuing box:

(P. 1 of 2 pp.)				(P. 2 of 2 pp.)			
Age	Total	White	Negro	Age	Indian	Chinese	Other
All ages.....				All ages.....			
Under 5.....				Under 5.....			
5 to 14.....				5 to 14.....			
15 to 24.....				15 to 24.....			
25 and over.....				25 and over.....			

Example C-2. Continuing box with changing banner head:

(P. 1 of 2 pp.)				(P. 2 of 2 pp.)			
Age	White			Age	Negro		
	Total	Male	Female		Total	Male	Female
All ages.....				All ages.....			
Under 5.....				Under 5.....			
5 to 14.....				5 to 14.....			
15 to 24.....				15 to 24.....			
25 and over.....				25 and over.....			

¹ By "1-page stub" is meant that after the first page, the entire stub is repeated without change, center heads and all. By "multipage box" is meant that the box entries differ from page to page, even though the sole difference lies in variation of a spanner extending across the entire boxhead on each successive page.

FIGURE 20.—PLACEMENT OF BOTTOM RULE (See par. 1316)—Con.

Group D. Multipage stub, multipage box¹

Example D-1. Stub completed first for each page of box:

(P. 1 of 4 pp.)				(P. 2 of 4 pp.)			
Age	Total	White	Negro	Age	Total	White	Negro
All ages.....				35 to 44.....			
Under 5.....				45 to 54.....			
5 to 14.....				55 to 64.....			
15 to 24.....				65 to 74.....			
25 to 34.....				75 and over.....			

(P. 3 of 4 pp.)				(P. 4 of 4 pp.)			
Age	Indian	Chinese	Other	Age	Indian	Chinese	Other
All ages.....				35 to 44.....			
Under 5.....				45 to 54.....			
5 to 14.....				55 to 64.....			
15 to 24.....				65 to 74.....			
25 to 34.....				75 and over.....			

Example D-2. Box completed first for each page of stub:

(P. 1 of 4 pp.)				(P. 2 of 4 pp.)			
Age	Total	White	Negro	Age	Indian	Chinese	Other
All ages.....				All ages.....			
Under 5.....				Under 5.....			
5 to 14.....				5 to 14.....			
15 to 24.....				15 to 24.....			
25 to 34.....				25 to 34.....			

(P. 3 of 4 pp.)				(P. 4 of 4 pp.)			
Age	Total	White	Negro	Age	Indian	Chinese	Other
35 to 44.....				35 to 44.....			
45 to 54.....				45 to 54.....			
55 to 64.....				55 to 64.....			
65 to 74.....				65 to 74.....			
75 and over.....				75 and over.....			

¹ For definitions, see footnotes to groups B and C.

In any fractional-measure table, if the end rule belongs at the bottom of the last partial-measure shown on the page, it is extended across the entire table.

b. One-page box, multipage stub.—End rule will appear only on the last page of the table since that ends the stub. (See fig. 20, examples B-1 and B-2.)

The expression "1-page box" means that after the first page the entire box is repeated without change, spanner heads and all. The term "multipage stub" means that the stub differs from page to page, even though the sole difference lies in variation of a center head at the top of the stub on each page.

c. One-page stub, multipage box.—End rule will appear at the bottom of every page since the stub presentation is completed at the bottom of each page. (See fig. 20, examples C-1 and C-2.)

By "1-page stub" is meant that after the first page, the entire stub is repeated without change, center heads and all. By "multipage box" is meant that the box entries differ from page to page, even though the sole difference lies in variation of a spanner extending across the entire boxhead on each successive page.

Note: Comparison of examples B-2 and C-2 brings out the arbitrary nature of the basic rule, since the presence of the end rule at bottom of page 1 is made dependent on the location of the caption specifying color.

d. Multipage stub, multipage box.—The end rule will appear at the bottom of as many pages as there are distinctly different pages of boxhead. The location of the pages which require the end rule depends upon whether the stub is completed in successive pages before continuation of the box, or contrariwise.

(1) **Stub completed for each page of box.**—End rule appears at periodic intervals. Thus, with a 4-page table with two pages of stub and two pages of box, every second page will show the end rule if the stub is completed for the first page of box before any portion is shown for the second page of box. The end rule will appear on two pages in all. (See fig. 20, example D-1.)

(2) **Box completed for each page of stub.**—End rule appears on each of the last group of pages. Assuming again a table with two pages of stub and two pages of box, the end rule will appear at the bottom of each of the last two pages of the 4-page table if the entire box is completed on successive pages for the first page of stub before any portion of the box is shown for the second page of stub. (See fig. 20, example D-2.)

Sec. 13-C. The Vertical Rule (1321-1334)

1321. General.—The term "vertical rule" as used here covers all types of continuous vertical lines appearing as part of the table.

In both letterpress and typewriter-offset work the same general types of vertical rules are used. In letterpress, they are part of the typographical composition. In offset, they are normally drafted by hand to imitate the appearance of their letterpress counterparts.

1322. Types and weights of vertical rules.—Differences between vertical rules in letterpress and offset work are a matter of mechanical limitations. Letterpress usage is basic. Rules drafted on offset tables, and those preprinted on large table forms on which the data are to be filled by the typewriter, should be so planned that when reduced for printing they will duplicate the appearance of the rules used in ordinary letterpress work.

a. Single rule.—Used in three weights,¹ as follows:

(1) **Hairline.**—The standard column rule. This is the lightest weight of rule available.

(2) **Medium weight.**—Typified in letterpress by a rule $\frac{3}{4}$ point ($\frac{1}{16}$ " wide when printed. Primarily, it is used to set off independent (nonadditive) panels of columns. In the process, it improves the vertical legibility of the table.

(3) **Bold, or heavy weight.**—Typified by the 1-point ($\frac{1}{2}$ " or $1\frac{1}{2}$ point ($\frac{3}{16}$ " rule in letterpress work. It is used infrequently by the Bureau of the Census because of its excessive boldness.

b. Parallel rule.—A double rule composed of two rules running in parallel as a single rule-unit. As used in this manual, "parallel" always refers to the double hairline rule. The parallel rule is never used by the Bureau of the Census in medium or heavy weight except when preprinting standard-table forms which will be reduced for publication. (See par. 1323b, below.) Normally, the parallel rule is used to set off additive totals, to precede stub continuations in fractional-measure tables, and, rarely, to set off independent sections of the table.

Example A. Comparison of types and weights of rules employed:

[All rules single hairline unless otherwise specified. "P" denotes parallel rule; single rules other than hairline are denoted by: "M," medium; and "B," boldface]

Stub head	Panel 1			Panel 2			Panel 3				
	Additive total	Components			Non-additive total	Average	Percent of total	Additive total	Components		
		X	Y	Z					X	Y	Z
	P			B	M		B	P			

Note.—In the above example, the $1\frac{1}{2}$ point boldface rule has been used as a panel separator in order to illustrate its comparative weight. In practice, the medium rule would be used to separate the panels as well as to set off the nonadditive total.

1323. Technical specification for rules.—Following are quasi-technical specifications for vertical rules. These are shown here as a matter of information. In practice, the table-designer is not expected to indicate such technical detail. The use of the initials "P," "H," "M," and "B" (parallel, hairline, medium, and bold) will cover all cases where rule specification is essential as a part of table design. Rules are always set as single hairline unless otherwise specified.

Note: In Bureau of Census work, do not use the above initials, or the general terms "medium" or "bold" in marking copy for the Government Printing Office. The printer must have a kind of technical description best supplied by the office of the Printing Section.

¹ All references to letterpress (type set) rules as 1 point, 2 point, etc., signify width of the printing surface of the rule; that is, the line width or thickness as printed, disregarding varying absorption capacities of different printing papers. They do not refer to the thickness of the "body" or base of the rule. Thus, both hairline and 1-point rule are cast on 1-point, 2-point, 4-point, and 6-point bodies. To refer to a hairline rule cast on a 2-point body as a "2-point rule" is incorrect and misleading. The term "2-point rule" always means a rule with a 2-point printing face, regardless of the body on which it is cast.

a. Letterpress:

- (1) *Hairline*: Single hair or hairline.
- (2) *Medium*: $\frac{1}{4}$ point.
- (3) *Bold*: 1 point or $1\frac{1}{2}$ point.
- (4) *Parallel*: Parallel hairline.

b. Offset: Preprinted forms.—This refers to standard page or table forms prepared double-size in which the cell entries are added by the typewriter. Specifications here assume a 50-percent reduction before the report is reproduced.

- (1) *Hairline*: Substitute $\frac{3}{4}$ point.
- (2) *Medium*: Substitute $1\frac{1}{2}$ point.
- (3) *Bold*: Substitute 2 point (avoid this; it is very black when reproduced in spite of the reduction).
- (4) *Parallel*: Substitute parallel $\frac{3}{4}$ point.

c. Offset: Drafted rules.—This refers to all rules drafted by hand. Specifications shown assume a 50-percent reduction before reproduction. In each case, imitate the printed rules on standard offset tables as closely as possible. As a practical matter, it is well to err by making the rule *lighter*, rather than heavier, than its letterpress counterpart.

- (1) *Hairline*: Duplicate $\frac{1}{4}$ point as closely as possible (lighter, rather than heavier).
- (2) *Medium*: Duplicate $1\frac{1}{2}$ point as closely as possible.
- (3) *Bold*: Duplicate 2 point as closely as possible (avoid).
- (4) *Parallel*: Duplicate parallel $\frac{1}{4}$ point as closely as possible but, draft the rules lighter, rather than heavier, than $\frac{1}{4}$ point. In particular, do not draft the component lines too far apart. The vertical parallel rule is not intended to frame the space left for it.

1324. Space requirements: General.—Because of typewriter limitations, the space required for vertical rules tends to be greater in offset than in letterpress. However, the table-designer is not affected *unless* he is planning a *tight table in letterpress*. Even then he would be well advised to assume full normal spacing unless he is technically qualified to determine *exactly* how much space each part of the table will occupy typographically, not merely the vertical rules. The following specifications are rule-of-thumb.

a. Letterpress.—Allow 1 digit space (3 points in tables set in 6 point) for each vertical rule. Normally, allow also 1 digit space on either side of the column rule for normal "bear-off."² Where necessary, in a tight table, the bear-off may be eliminated. However, elimination of the bear-off (which means running figures against the rules with no space between) may result in the last (or first) digit being printed imperfectly or not at all. In any case, the table-designer should always allow 3 points (1 digit space) for each column rule whether it be light, medium, or bold single rule, or parallel rule.³

² "Bear-off" refers to the white space left between the column rule and the maximum cell entry.

³ Technically each hairline rule will occupy 2 points of space; each medium or bold single rule, and each parallel rule, will occupy 4 points of space. The rule-of-thumb given above will work successfully, therefore, in all tables where at least 50 percent of the rules are hairline. Few Bureau of Census tables are outside this class. Calculation of space allotment to *exact technical limits* should be left to the Printing Expert. He will take *all* typographical features of the table into account.

b. Typewriter offset.—Here, the space limitation tends to be absolute since the horizontal spacing of the typewriter is involved. Every vertical rule, without exception, *must* be allotted at least one full typewriter space. This is true irrespective of amount of reduction planned.

An additional typewriter space should be allowed on either side for bear-off,² particularly in preprinted standard table forms. Otherwise, it may be extremely difficult for the fill-in typist to keep the columns of figures from touching the printed vertical rules as she progresses down the page.

1325. Allocation of white space to stub and columns.—A common and undesirable practice is to allow normal bear-off (white space between maximum entry and vertical rule) in each column and, if space is left over, to throw it into the stub in the form of leaders.

a. Stub leaders waste space.—This practice is objectionable for several reasons. *First*, it results, particularly when columns are narrow, in an overwhelmingly vertical effect caused by the multiplicity of vertical rules extending from top to bottom, unrelieved by white space. This makes it difficult for the eye to follow a line horizontally across the page. *Second*, the over-abundance of leaders in the stub makes it hard for the eye to follow across to the crowded field.

b. Preferred practice.—Allocate to the stub enough space to make possible two leader dots after the longest line, where the longest line is not more than one-half as much longer than the average line. (If it is longer, overrun it.) Allocate the remaining "extra space" to the columns. First make sure each total and subtotal column is at least as wide as its widest component column. Then even out the width of the component columns until each has at least two spaces clear on either side of each column rule. Only then return to the stub and assign extra space to it in the form of additional leaders. Where the stub leaders still run to more than two or three times the longest stub line, assign more space to the columns.

c. Example of unnecessary crowding.—The examples shown in figure 21 illustrate a "before" and "after" effect of this general principle.

Example A-1 shows the effect of insufficient white space in the columns coupled with the corresponding type of error in the stub—lack of reader breaks.

Example A-2 shows both errors as corrected in final proof. The minute additional space in the columns makes a decided difference in legibility. Also, it makes it possible to run the column heads across, not up.

1326. The hairline or lightface rule.—This discussion covers the use of the hairline rule in letterpress and its corresponding rule ($\frac{1}{4}$ point) in offset planned for 50-percent reduction.

The hairline rule is the standard tabular rule, used where no other type or weight of rule is specified.

a. As a column rule.—Hairline is normally used at the right of the stub, and at the right of all columns which are not total columns or panel-ending columns. However, no *vertical rule* appears after the last column on any table-page, unless it is followed by a tracer or code column. *Exception*: The last column on the left-hand page of a parallel table invariably carries a hairline column rule. Note,

² "Bear-off" refers to the white space left between the column rule and the cell entries.

FIG. 21

HORIZONTAL AND VERTICAL RULES

SEC. 13-C

FIGURE 21.—ALLOCATION OF WHITE SPACE TO TABLES
(See par. 1325)

Example A-1. No white space in columns; no reader breaks in stub:

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Alabama	51.5	54.7	59.7	66.3	74.4	80.3	81.4	81.0	78.1	69.3	58.6	52.2	76.3
Mobile	51.5	54.7	59.7	66.3	74.4	80.3	81.4	81.0	78.1	69.3	58.6	52.2	76.3
Montgomery	48.2	51.6	57.8	65.3	73.4	79.6	81.7	80.8	76.3	66.5	55.8	49.4	65.5
Arizona	51.2	55.1	60.7	67.0	75.0	84.5	89.8	88.5	82.7	70.6	59.7	52.0	69.7
Phoenix	41.4	44.9	53.0	62.1	70.3	77.4	80.9	79.8	74.1	63.6	52.4	44.2	62.0
Arkansas	45.5	50.3	54.4	60.2	67.2	75.7	81.3	79.5	72.0	62.3	52.4	45.1	62.2
California	45.4	50.3	54.4	60.2	67.2	75.7	81.3	79.5	72.0	62.3	52.4	45.1	62.2
Fresno	54.6	55.5	57.5	59.4	62.2	66.4	70.2	71.1	69.0	60.5	56.3	51.3	56.1
Los Angeles	49.9	52.5	54.2	55.0	56.8	58.5	59.1	60.9	62.9	65.2	68.3	72.2	50.0
San Francisco	29.8	32.7	33.9	34.7	35.6	36.6	37.2	37.0	36.2	35.1	33.9	32.3	50.0
Colorado	33.4	35.3	42.6	53.3	63.7	72.2	76.8	75.0	68.1	57.4	45.2	36.6	55.0
Denver	29.8	32.7	33.9	34.7	35.6	36.6	37.2	37.0	36.2	35.1	33.9	32.3	50.0
Dist. of Col.	55.4	58.0	62.6	68.7	75.0	82.1	81.7	78.3	71.1	62.2	56.3	69.3	69.3
Florida	66.5	67.1	70.2	72.8	76.4	80.0	81.0	81.4	80.1	77.0	71.8	68.0	75.4
Jacksonville	55.4	58.0	62.6	68.7	75.0	82.1	81.7	78.3	71.1	62.2	56.3	69.3	69.3
Miami	66.5	67.1	70.2	72.8	76.4	80.0	81.0	81.4	80.1	77.0	71.8	68.0	75.4
Georgia	42.6	45.3	52.0	61.0	69.9	76.0	78.1	77.0	72.4	63.0	52.1	44.7	61.2
Atlanta	29.8	34.8	42.7	50.4	57.1	65.3	72.9	71.8	61.9	51.1	41.0	28.8	50.9
Idaho	23.7	26.3	35.3	46.9	57.5	65.6	72.5	71.6	65.2	54.0	40.1	28.8	49.1
Illinois	28.3	31.1	40.0	52.1	62.9	71.6	75.7	73.7	66.9	55.7	42.3	32.2	52.7
Indiana	20.1	23.7	35.9	50.1	61.3	70.6	75.4	73.0	65.6	53.4	38.4	26.0	49.5
Iowa	31.3	34.4	45.1	66.4	81.1	94.7	100.0	98.0	87.2	72.0	56.7	37.6	57.0
Kansas	34.3	37.2	45.4	66.6	81.1	94.7	100.0	98.0	87.2	72.0	56.7	37.6	57.0
Kentucky	54.2	57.3	62.8	68.8	75.4	80.2	82.4	82.4	79.2	71.0	61.6	55.6	69.3
Louisiana	20.4	21.5	28.9	39.0	47.7	55.1	60.4	60.7	55.8	47.5	36.7	28.3	41.7
Maine	27.9	28.8	35.6	46.4	57.1	66.5	71.7	70.9	63.2	53.6	42.0	32.5	49.6
Mass.	27.9	28.8	35.6	46.4	57.1	66.5	71.7	70.9	63.2	53.6	42.0	32.5	49.6
Boston	27.9	28.8	35.6	46.4	57.1	66.5	71.7	70.9	63.2	53.6	42.0	32.5	49.6
Michigan	24.4	25.3	33.4	46.2	58.0	67.4	72.1	71.8	67.6	55.5	44.6	32.0	49.2
Detroit	13.3	12.6	21.6	37.4	49.0	58.3	63.8	62.9	61.4	48.9	32.4	19.6	44.5
Sault Ste. Marie	12.7	15.9	29.6	46.4	57.7	67.5	72.3	73.0	68.3	66.7	56.0	50.0	65.6
Minnesota	48.2	51.8	58.5	65.6	72.9	79.8	80.8	76.3	68.9	57.7	47.3	32.5	54.4
Minneapolis	28.2	31.2	42.7	54.8	64.8	72.6	78.1	77.5	70.5	58.8	45.4	34.9	56.2
Vicksburg	31.1	34.8	44.1	56.1	67.0	75.0	78.8	76.0	66.6	56.6	43.2	24.2	43.3
Mississippi	20.2	23.0	32.4	43.5	51.6	59.2	65.7	65.7	60.4	48.0	33.6	22.3	45.9
Missouri	17.1	19.4	31.8	47.0	56.9	66.9	74.3	71.7	62.1	49.7	36.6	26.7	48.3
Kansas City	22.9	26.6	36.6	48.6	58.7	67.5	72.9	70.8	66.8	54.3	38.5	26.4	50.6
St. Louis	21.9	25.5	37.0	51.2	62.4	71.6	76.7	74.4	66.8	54.3	38.5	26.4	50.6
Montana	28.6	33.5	40.0	46.7	53.9	62.8	70.6	69.3	59.2	48.3	38.4	30.0	48.4
Helena	32.5	33.6	38.8	47.8	58.1	66.6	72.1	72.5	66.8	56.9	46.6	36.4	52.3
Miles City	34.1	40.5	45.9	54.0	63.3	72.6	76.7	73.9	67.9	56.6	43.3	34.5	55.3
Nevada	23.1	24.1	32.7	46.8	59.3	68.0	72.6	70.8	63.3	52.1	39.3	28.5	48.4
Winnemucca	20.9	31.3	37.7	49.4	60.6	68.8	73.8	73.8	68.8	56.3	44.2	35.0	52.3
Atlantic City	24.6	24.6	31.8	44.9	57.1	66.1	70.7	69.2	62.4	51.5	38.7	29.3	47.6
New Jersey	35.4	38.5	44.9	53.9	62.6	68.7	71.7	70.7	65.0	55.3	45.1	37.8	54.1
New Mexico	41.4	43.2	50.2	59.4	68.5	75.7	78.8	77.0	71.1	62.0	51.0	43.0	60.1
New York	26.5	27.4	34.6	46.2	57.9	67.1	71.4	70.0	63.9	53.6	44.9	31.2	49.2
Albany	23.1	24.1	32.7	46.8	59.3	68.0	72.6	70.8	63.3	52.1	39.3	28.5	48.4
New York	30.9	31.3	37.7	49.4	60.6	68.8	73.8	73.8	68.8	56.3	44.2	35.0	52.3
Rochester	24.6	24.6	31.8	44.9	57.1	66.1	70.7	69.2	62.4	51.5	38.7	29.3	47.6
North Carolina	35.4	38.5	44.9	53.9	62.6	68.7	71.7	70.7	65.0	55.3	45.1	37.8	54.1
Asheville	41.4	43.2	50.2	59.4	68.5	75.7	78.8	77.0	71.1	62.0	51.0	43.0	60.1
Raleigh	26.5	27.4	34.6	46.2	57.9	67.1	71.4	70.0	63.9	53.6	44.9	31.2	49.2
North Dakota	38.6	41.6	49.2	59.0	68.2	75.8	78.8	77.0	71.1	62.0	51.0	43.0	60.1
Ohio	36.4	39.6	50.9	61.8	70.3	74.8	72.6	65.8	54.8	42.8	34.2	25.8	52.8
Oklahoma	39.4	42.1	46.9	51.8	56.9	62.4	66.7	66.7	61.7	54.2	46.8	41.2	53.1
Oklahoma City	26.5	27.4	34.6	46.2	57.9	67.1	71.4	70.0	63.9	53.6	44.9	31.2	49.2
Oregon	39.4	42.1	46.9	51.8	56.9	62.4	66.7	66.7	61.7	54.2	46.8	41.2	53.1
Portland	39.4	42.1	46.9	51.8	56.9	62.4	66.7	66.7	61.7	54.2	46.8	41.2	53.1
Pa.	29.0	30.2	38.9	50.9	61.8	70.3	74.8	72.6	65.8	54.8	42.8	34.2	52.8
Harrisburg	30.7	32.3	39.6	51.2	62.4	70.7	74.6	72.9	66.4	55.7	43.2	34.2	52.8
Pittsburgh	11.1	14.3	28.9	45.1	56.4	66.2	71.8	69.4	61.3	47.7	31.5	18.7	43.6
South Carolina	38.6	41.6	49.2	59.0	68.2	75.8	78.8	77.0	71.1	62.0	51.0	43.0	60.1
Charleston	49.9	52.4	57.4	64.5	72.7	78.9	81.4	81.4	78.9	70.3	61.0	54.1	69.3
Huron	38.6	41.6	49.2	59.0	68.2	75.8	78.8	77.0	71.1	62.0	51.0	43.0	60.1
South Dakota	35.3	38.1	46.9	56.8	65.4	71.5	73.9	73.9	69.3	57.7	45.5	37.0	56.3
Tennessee	45.0	49.0	55.8	63.4	71.5	79.6	81.6	81.6	78.9	70.3	61.0	54.1	69.3
Nashville	45.0	49.0	55.8	63.4	71.5	79.6	81.6	81.6	78.9	70.3	61.0	54.1	69.3
El Paso	45.0	49.0	55.8	63.4	71.5	79.6	81.6	81.6	78.9	70.3	61.0	54.1	69.3
Fort Worth	45.0	49.0	55.8	63.4	71.5	79.6	81.6	81.6	78.9	70.3	61.0	54.1	69.3
Texas	52.7	55.9	63.3	72.0	80.3	86.1	87.0	86.1	83.0	74.5	64.4	54.1	69.1
Houston	18.2	19.4	20.1	21.4	23.3	25.6	28.4	28.4	26.8	24.4	22.4	21.4	21.4
Salt Lake City	18.2	19.4	20.1	21.4	23.3	25.6	28.4	28.4	26.8	24.4	22.4	21.4	21.4
Utah	40.8	42.7	48.2	56.8	66.2	74.4	78.7	77.4	74.5	64.4	52.5	41.1	69.1
Burlington	37.9	39.6	47.2	56.6	65.4	71.5	73.9	73.9	70.3	61.0	54.1	69.3	
Norfolk	37.9	39.6	47.2	56.6	65.4	71.5	73.9	73.9	70.3	61.0	54.1	69.3	
Richmond	40.8	42.7	48.2	56.8	66.2	74.4	78.7	77.4	74.5	64.4	52.5	41.1	69.1
Washington	27.5	31.3	39.7	48.4	55.5	62.8	69.0	68.1	65.2	58.3	48.3	38.5	57.9
Seattle	32.5	34.2	42.8	53.4	63.8	71.4	75.4	75.4	72.8	63.2	53.2	44.8	65.2
Spokane	16.7	19.1	30.6	45.4	57.6	67.2	72.1	72.1	69.8	62.4	50.3	35.2	58.8
West Virginia	25.5	27.3	33.1	40.9	50.3	60.4	66.7	65.6	67.0	58.4	48.3	38.4	58.8
Wisconsin	27.7	30.0	33.7	40.7	47.7	54.2	56.7	55.3	52.6	44.3	35.7	30.9	42.2
Wyoming	71.4	71.5	71.8	73.0</									

however, that this is *not* the last column on the *table-page* since the *table-page* in a parallel table consists of the two facing book-pages taken together. (See fig. 9, p. 22.)

The hairline rule also is used at the *left* of the stub to set off tracer columns or, on occasion, line or code number columns.

b. As a nonadditive total rule.—Where a total column is nonadditive, that is, does not represent the summation of the columns shown immediately to the right, it is normally followed by a hairline rule.

On occasion, however, a medium rule is used for this purpose if the nature of the total warrants special emphasis. (See pars. 1327 and 1328a.)

c. As a panel rule.—Where more than a few major panels appear in the box-head, it is sufficient that they be closed by hairline rules *extending to the top of the panel spanner*. A multiplicity of medium-weight rules terminating spanners may defeat the purpose of their insertion. (See par. 1328.)

1327. Medium and bold rules: General.—Medium and bold rules are best used to set off independent (nonadditive) panels or columns. In the process, they also improve the vertical legibility of the table.

a. Basic principle.—Medium and bold rules should not be inserted to separate the members of a series of columns or panels which, taken together, add to a total column within the same panel or to a total panel within the same table. In other words, these rules should stress the independence, not the interdependence (if any), of the columns or panels which they separate. This function should take precedence over the improvement of vertical legibility of the presentation.

b. Signalling additive—nonadditive situations.—The principle stated above relates to a basic problem in tabular presentation; that is, the need for devices which will help the reader to identify, quickly and surely, the additive and the nonadditive relationships of the various columns and panels. Two signalling methods are available:

(1) A *positive* signal is provided by the presence of the parallel total rule at the right of a total column or panel. This tells the user that the columns (or panels) on the right add to make the total column or panel.

(2) Within limits, a *negative* signal is provided by the presence of the medium or bold rule. This warns the user that the columns or panels thus separated are *not* appearing in an additive situation.

c. Medium rule as a negative signal.—The negative signal is essential in a case such as found in paragraph 1328, example B. There, the first panel is a total panel; the next three panels add to the first; the last panel is not to be included in the addition. If the *positive* signal (the parallel total rule) is to have meaning, the user must be warned exactly where its range of influence stops. The insertion of the medium rule preceding the last panel does this. However, this important usage will be negated or obscured if, in the same table or volume, the medium-weight rule also is used as an additive total rule. (See par. 1328d.)

1328. Medium rule.—This discussion covers the use of the 3/4 point medium rule used in letterpress and its corresponding rule (1 1/2 point) used in typewriter-offset planned for 50-percent reduction.

The medium rule is recommended for three primary purposes. A fourth usage, to be avoided where possible, is its use as an additive total rule.

a. Panel or column rule.—Where the table is divided by top spanners into several independent segments, use the medium-weight rule for divide purposes; that is, to set off the panels from one another.⁴ However, this rule should not be inserted among the members of a series of panels which add to a total at the left. The same line of reasoning obtains as to the use of the medium-weight rules to set off columns within spanners, or in a table without spanners.

b. Nonadditive total rule.—A nonadditive total column may be set off with a medium column rule *at its right* if the column is considered sufficiently important. Use of the medium rule for this purpose should be held to a minimum. Usually such columns do not need the additional emphasis.

Example A. Right (simple use as a panel divider):

Year	Central heating		Electric lighting		Cooking facilities		Radio	

Example B. Right (important use to indicate presence of an independent panel):

Age	The State		Urban		Rural		Total farm	

Example C-1. Not recommended (use to separate members of additive series obscures meaning of medium rule as used in example B; use hairline instead):

Age	The State		Urban		Rural-nonfarm		Rural-farm	

Example C-2. Right (panels will add to a total, but the total panel is not shown in the table):

Age	Native white		Foreign-born white		Negro		Other races	

Example D. Not acceptable (over-use of panel-divide rule; use hairline instead):

Year	County A		County B		County C		County D		County E		County F	
	Male	Female										

⁴ A multiplicity of medium-weight rules to set off panels will defeat their purpose. On a document-size page, the number of medium rules used for panel-divide purposes might well be restricted to 3; at most, 4. On a census-size page, the maximum might be increased to 5, or even 6. If these numbers are exceeded, use hairline rules instead (see par. 1326c). For page sizes, see par. 211.

Example E. Right (if one category is set off, all parallel categories must be set off, even though one or more are represented by single columns instead of by spanner groups):

Age	1940		1930		1920, total	1910	

c. To set off a nonadditive, or independent, column, or group of columns, at the right of the table.—Three examples of this use may be mentioned.

(1) A general case is where the table is evenly divided into a number and a percent panel. Here, the medium rule is useful to improve vertical legibility of the page.

Example F:

Age	Number			Percent distribution		
	Group A	Group B	Group C	Group A	Group B	Group C

(2) A common case is where a detailed distribution is given one major category, but only the total number of units is shown (classified by the stub entries) for another category. Usually, such a "total number" column is shown at the right of the table, preceded by a medium-weight rule. Note in example G that the medium rule is also desirable to terminate the influence of the parallel total rule.

Example G:

Total experienced persons	Experienced persons by wage income groups						Number of wage workers, total
	Under \$200	\$200 to \$499	\$500 to \$999	\$1,000 to \$2,499	\$2,500 to \$4,999	\$5,000 and over	

(3) A special case is illustrated in examples H-1 and H-2. Here the "Not reporting" column is separated considerably from its coordinate column "Reporting on monthly rent." Use of the medium rule is essential to terminate the influence of the parallel total rule which appears at the left. Also, it makes clear that the "Not reporting" column is not coordinate with the columns immediately preceding it.

d. As an additive total rule: Not recommended.—In rare instances, it may be necessary to use the medium-weight rule as an additive total rule. This may occur where spanners have been deleted because of lack of space, and the parallel rule (rising to the same level) already has been used for other purposes. This situation most frequently arises where a subtotal is thus set off by a medium rule, as in the examples below. This usage of the medium-weight rule should be held to a minimum since it obscures its more important usage to set off independent panels and nonadditive columns.

Example H-1. An extreme case. Not recommended:

State	Total, all units	Reporting on monthly rent	Under \$15	\$15 to \$19	\$20 to \$29	\$30 to \$49	\$50 to \$74	\$75 and over	Not rptg.

Example H-2. Possible alternative:

State	Total, all units	Reporting on monthly rent	Under \$15	\$15 to \$19	\$20 to \$29	\$30 to \$49	\$50 to \$74	\$75 and over	Not rptg.

1329. Bold rule.—This discussion covers both the bold rule used in letterpress (1 point or 1½ point) and its corresponding rule in offset planned for a 50-percent reduction (2 point).

The bold rule should be avoided where possible. It is too black for any use except to "shock" the reader into observation. In itself, this tends to distract the user from the data.

In general, the bold rule should be reserved for cases where all spanners are crowded out for lack of space; the use of parallel rules is essential for additive totals; the medium-weight rule must be used to indicate an independent column or a subtotal; and in addition it is imperative that still another basic division of the boxhead be established. Thus, in the case illustrated below, all of the above types and weights of rules appear, and all must rise to the top rule of the table. This presentation is defective. However, any instance where the bold rule is essential is likely to be equally defective.

Example A. Use of boldface rule (table should be redesigned to avoid this complexity of rules):

Total units, Type A	Reporting on X			Not reporting	Total units, Type B	Reporting on Y			Not reporting

1330. Parallel rule.—This is used for three main purposes:

a. To set off each partial measure in a fractional-measure table.—This usage does not prevent its use also to set off an additive total rule, even though both rise to the same level of box with no superior rule intervening. When the parallel rule is used to set off a partial measure, it always precedes a new stub; its significance when so used is obvious to the user.

Example A. Use of parallel to set off both additive totals and partial measure of a half-measure table, doubled up:

Area	Total	Male	Female	Area	Total	Male	Female
Rand.....	314	163	151	Welch.....	1,299	789	510

b. To set off independent sections of the table.—Not recommended. This usage of the parallel rule is no longer as common as it once was. The medium or bold single rule is suggested for the purpose in order to reinforce the use of the parallel rule as signifying an additive total. Special cases of the use of the parallel rule to set off independent sections are where (1) all spanners have been omitted because of lack of space and (2) the medium-weight rule (rising to the top rule of the table) has been used for nonadditive totals.

Example B. Not recommended. Better to use medium rule for panel divide and single hairline for nonadditive totals.

Total A units	Percent of X	Percent of Y	Median	Total B units	Percent of X	Percent of Y	Median

c. To set off additive totals: Frequency data.—Where a total column represents the summation of the series of columns that follows, the total column normally carries a parallel rule at its right. The same is true of a total panel.

(1) *Normal case.*—Here, the total column (or panel) and the component columns are strictly parallel in form.

Example C:

The State			Urban			Rural		
Total	Male	Female	Total	Male	Female	Total	Male	Female

(2) *Special cases.*—Several special cases occur where the parallel rule is appropriate even though the pure additive situation is not present. Some of the more common are illustrated below. In each instance, the total panel provides extra information not shown for all components.

Example D. Number and percent for total panel; only number of components:

The State						Urban			Rural		
Number			Percent			Total	Male	Female	Total	Male	Female
Total	Male	Female	Total	Male	Female						

Example E. Total panels contain categories not distributed in component panels:

The State					Urban, 1940			Rural, 1940		
1940			1930, total	1920, total	Total	Male	Female	Total	Male	Female
Total	Male	Female								

Example F. Total panel with full distribution but not all components with complete distribution. However, the total, at least, should be shown for every component:

The State			Urban			Rural-nonfarm			Rural-farm, total
Total	Male	Female	Total	Male	Female	Total	Male	Female	

Example G. Grand total column with full distribution for component groups:

The State, total	Urban			Rural-farm			Rural-nonfarm		
	Total	Male	Female	Total	Male	Female	Total	Male	Female

d. To set off additive totals: Derived data.—The use of the parallel rule in setting off "total" columns or panels for derived data requires special attention.

The parallel rule is not reserved for totals representing summation of the actual derived data shown. In effect, this would restrict its use for derived data to cases where percent distributions are shown; and then only where the distribution adds to 100.0 (or the equivalent, since the Census Bureau rounds, but does not normally force percentages). Thus:

100.0	50.5	20.5	28.9
100.0	25.0	45.0	30.0

The use of the parallel rule extends considerably further. *Rule:* The use of the parallel rule to set off "total" columns or panels involving derived data depends upon whether the frequencies for the classes distributed would add to the frequency for the total column if the frequencies were shown instead of the derived figures. Its use does not depend upon whether the derived data themselves add to the value shown in the total column. This means that the parallel rule is used in all cases with derived data just as it would be used if frequencies were substituted for the derived statistics.

Example H. Parallel rules used for each panel, although additive feature differs:

Age	Sex by age			Age by sex		
	Total	Male	Female	Total	Male	Female
Total	100.0	100.0	100.0	100.0	50.2	49.8
Under 45 years.....	73.3	73.1	73.6	100.0	50.0	50.0
45 and over.....	26.7	26.9	26.4	100.0	50.6	49.4

Example J. Percentages (each cell a percent of a corresponding cell in another table):

Sex	All ages	Under 45 years	45 years and over
Total	89.8	65.1	24.6
Male.....	45.1	32.7	12.5
Female.....	44.6	32.5	12.2

Example K. Medians:

Area	Male			Female		
	Total	White	Non-white	Total	White	Non-white
United States.....	24.3	24.5	22.9	21.6	21.8	19.9
Urban.....	24.7	24.8	23.2	21.9	22.1	20.0
Rural-nonfarm.....	23.5	23.6	22.8	21.3	21.4	19.6
Rural-farm.....	24.3	24.7	22.7	21.0	21.2	19.8

1331. Combinations to be avoided.—Since both the parallel and the medium single rule are used for a variety of purposes, confusing combinations should be avoided.

a. Parallel rule.—Within a given level of box, only one parallel rule may be used, unless subsequent appearances are separated from each other, and from the first appearance, either by—

- (1) A rule (irrespective of type or weight) rising to a higher level of box; or
- (2) A medium or bold rule rising to the same level of box.

Exception: The sole exception to the above is the use of the parallel rule (in the fractional-measure table) to signify an additive total and to precede the second (and subsequent) appearance of the stub. This combination is not confusing because of the stub repetition.

b. Medium rule.—When used with a given meaning within a given box level, it should not be used again with any other meaning within the same box level, unless—

- (1) A rule (of any type or weight) intervenes which rises to a higher box level; or
- (2) The column arrangement is completely obvious to the most casual user.

Usage must be consistent.—If a medium rule is inserted in any portion of the boxhead, it must appear in all parallel situations elsewhere in the boxhead. *Specifically*, when used to set off coordinate panels, all table sections coordinate with such panels must also be set off, even though this involves setting off two adjoining individual columns.

Example A. If one category is set off, all coordinate categories must be set off:

1940			1930			1920, total	1910, total
Total	Male	Female	Total	Male	Female		

1332. Range of influence of vertical rules.—When inserting parallel or medium-weight single rules, the table must be scrutinized carefully in terms of range of influence of each such rule and for parallelism of presentation.

By “range of influence” is meant the extent to which the feature signalled by the given rule carries through the columns on the right. Thus, a parallel rule indicating an additive total signals a situation which, logically, will apply across the table until the final component

part is reached. *At that point*, it is imperative that the rule after the final component be distinctive to show that the end of the influence of the additive parallel rule has been reached. (See par. 1327b.) *On the other hand*, it is important that no intervening rule be such as to imply that the end of the influence of the additive parallel rule has been reached when, in fact, it has not.

The following observations may be helpful:

a. Parallel rule.—The range of influence of a parallel rule normally extends to the right until it encounters—

- (1) A medium rule rising to the same box level;
- (2) Any rule (any type or weight) rising to a higher box level;
- (3) A parallel rule rising to the same box level (indicating the end of the partial measure in a fractional-measure table); or
- (4) The right-hand edge of the table-page.

b. Medium rule.—The range of influence of a single medium rule extends to the right until it encounters—

- (1) Another medium rule rising to the same level of box;
- (2) A parallel rule rising to the same level of box where the parallel indicates a major division of the boxhead (this use of the parallel rule is not recommended);
- (3) Any rule (of any type or weight) rising to a higher level of box; or
- (4) The right-hand edge of the table-page.

c. Rise of rule.—Any rule (of any type or weight) rising to a given level of box curtails the range of influence of any other rule (of equal, inferior, or superior type or weight) which rises to a lower level of box.

1333. Rule extension at bottom of table or table-page.—Vertical rules are extended *below* the last line of entries, as indicated below:

a. Bottom of table.—Vertical rules are extended to meet the horizontal bottom (end) rule of the table.

b. Bottom of table-page, where stub continues.—Where the bottom of the table-page is not the end of the stub presentation (that is, where the stub continues to the next page), the horizontal end rule does not appear. (See par. 1316b.) Here, all vertical rules extend downward the depth of one additional line (if letterpress) or one-half line (if offset) below the last line of entries, or below the last stub line, whichever is lower. All vertical rules on a given page should extend downward the same distance. They should never be permitted to run “ragged”; that is, to run down dissimilar depths below the last line of the table-page.

1334. Tables in rules or boxes.—In Bureau of the Census practice, tables are rarely enclosed in rules nor are they “boxed-in” with rules. In general, the presence of vertical rules at the edge of the table, or of the box in which the entire table (including title and footnotes) is placed, distracts from the presentation in terms of the meaning of the data by overemphasizing the mechanics of construction.

Example A. Undesirable:

TABLE 1.—POPULATION, BY AGE AND COLOR

Age	Total	White	Non-white
All ages.....	100	75	25
Under 45.....	55	45	10
45 and over.....	45	30	15

Example B. Undesirable:

TABLE 1.—POPULATION, BY AGE AND COLOR			
Age	Total	White	Non-white
All ages.....	100	75	25
Under 45.....	55	45	10
45 and over.....	45	30	15

Example C. Right:

TABLE 1.—POPULATION, BY AGE AND COLOR

Age	Total	White	Non-white
All ages.....	100	75	25
Under 45.....	55	45	10
45 and over.....	45	30	15

Chapter 14

THE FIELD (1401-1448)

Sec. 14-A. General (1401-1402)

1401. Definition.—The field of the table is that portion extending from the bottom rule of the boxhead to the bottom of the table-page; and from the column rule at the right of the stub to the right-hand edge of the table-page; or, in fractional-measure tables, to the next repetition or continuation of the stub. The field is the depository of statistical or other information.

1402. Component parts defined.—In terms of construction, the component parts of the field are comparatively few in number. The more important of these are listed and described below.

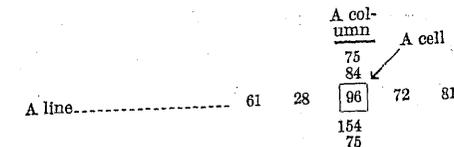
a. Cell.—The basic unit of presentation. (See sec. 14-B.) The intersection of any stub data-line caption with any column caption.

The description of a given cell consists of the combination of the stub caption and the column caption, supplemented or qualified by related center heads and colon or read-in lines in the stub, and the applicable spanner heads in the boxhead.

The cell entry may be informational (figure, word, phrase, reference symbol, etc.) or noninformational (leaders). On rare occasions, it may be left blank because it has been braced out of existence or for another special reason.

b. Line.—A horizontal row of cells with a common classification extending across from a data-line caption in the stub. (Properly speaking, the "line" includes the caption.)

c. Column.—A vertical row of cells with a common classification extending down from the descriptive entry in the column head. (Properly speaking, the "column" includes the individual column head.)



d. Unit-indicator.—A specification of measure or presentation unit. Usually it appears at the top of a column directly above the first data line in the field. Occasionally, however, it may appear elsewhere in the field, as in a "unit of measure" column, or in a field spanner. The unit-indicator consists of a statement such as "dollars," "bushels," "acres," etc.; or it may indicate digit omission as

"add 000," "thousands," etc. Where it appears at the top of a column, it is set in italic, if letter press; it is placed within parentheses, if typewriter offset. (See sec. 14-C.)

Examples:

Acres	Dollars	(Units)	(Sq. mi.)
65	6,254	23	2,516
28	1,542	64	7,418
69	7,890	72	6,736
84	6,289	65	4,987

e. Field spanner.—A type of spanner appearing recurrently in, and constituting a component part of, the field. Functionally, it may be thought of as a part of the stub transposed into the field because of space difficulties. The field spanner is inherently undesirable, but it is necessary in certain cases. Its major defect is that it breaks across the column rules and separates the column captions from the entries they describe. (See sec. 14-D.) In the following example, the field spanner is indicated by an arrow.

Example:

Other races.....	9	3	4	2
	New York City		Bronx Borough	
All classes.....	80	65	32	21
White.....	50	40	20	15
Negro.....	25	23	10	5
Other races.....	5	2	2	1

A common error is the erroneous inclusion of the uppermost of a series of field spanners in the boxhead of the table. This practice leads to serious confusion. (See par. 1434.)

f. Braces.—A means of indicating the funnelling together of two or more data lines into fewer lines; and a subsequent reexpansion to a greater number of lines. Braces are always placed at the left of the entries and at the right of the column rule. (See sec. 14-E.)

Example:

White.....	832	} 990 {	269,324
Nonwhite.....	646		114,007

Sec. 14-B. The Cell (1411-1414)

1411. Definition.—The cell is the basic unit of presentation. It consists of the intersection of any stub data-line caption with any column caption. The description of a given cell consists of the combination of the stub caption and the column caption, supplemented or qualified by related center heads and colon or read-in lines in the stub, and the applicable spanner heads in the boxhead.

1412. Function and purpose.—The cell provides placement for the informational or noninformational entries defined by the combination of the controlling stub line-caption and column caption.

1413. Types of entries.—Normally, each cell should contain an entry of some kind. Cells left completely blank are subject to misinterpretation by the user. Blank cells also may cause difficulty in the verification of transcription and computing operations. "Blanks"

are particularly objectionable where the user is unable to tell whether the cell was deliberately left blank or whether a clerical omission was responsible.

The major types of cell entries are listed below. The presence of any of these types of entries prevents the cell from being classified as an empty or "blank" cell.

a. A specific observation or datum.—Usually this is a specific figure. However, it may be a date, a name, a class, a summary statement, or a code entry. It may be accompanied by a footnote reference symbol.

b. A footnote reference symbol, in parentheses.—A footnote reference symbol (in parentheses) may stand alone in a cell. It is normally required in any instance where—

- (1) Data are not available.
- (2) Data are available but are suppressed by the Bureau of the Census because of "disclosure"; that is, their publication in the given context would permit the reader to identify the specific person or firm to which they apply.
- (3) A sample observation or datum has been omitted because it is less than a given frequency or has too great a sampling error to warrant publication.
- (4) Data are omitted for other specific reason; the reason is specified in the footnote.

c. Leaders (letterpress) or three periods (offset): General rule.—Generally required in any instance where—

(1) Data are not applicable. This refers to a case where the combination of line caption and column caption is such as to make an entry illogical. *Example:* Intersection of a percent line and a percent column; or intersection of a median line and a ratio column; etc.

(2) A derived entry (percent, median, etc.) is not shown because—

- (a) The base is less than a lower limit specified in the headnote, as—

Examples: Where percents are not shown where the base is less than 100; Where medians are not shown where the base is less than 50.

(b) The value, when computed, is less than a lower limit specified in a headnote, as—

Example: Where percents are not shown where less than 0.1 after rounding.

d. Specialized code entries.—In certain materials, specialized code entries may be used to express one or more of the concepts listed above as requiring a leader (letterpress) or three periods (offset). In such cases, the practice customary for the given subject matter should be followed carefully. In this respect, however, one general rule should be observed:

General rule: No code entry should appear in any table unless the meaning of the given code is made clear in a readily accessible and observable point in the report. Preferably, all such codes should be explained on the same page as that on which they appear.

1414. Braces in cells.—One or more braces may affect a given cell in addition to any of the above entries. Where a brace appears in a table, it invariably appears at the right of a column rule, preceding a given observation or cell entry. (See sec. 14-E.)

Sec. 14-C. The Unit-Indicator (1421-1426)

1421. Definition.—The unit-indicator is a device designed to make clear the exact unit of measurement to which the given statistics refer. It is sometimes referred to, as in the *G. P. O. Style Manual*, as the “unit of quantity.”

The unit-indicator and similar auxiliary devices may appear in the field, stub, or boxhead. The nature of this device, restrictions on its use, etc., are discussed in detail in sec. 9-F. The principles outlined there, although the application is in terms of use of the unit-indicator in the stub, apply generally to its use elsewhere in the table.

1422. Placement in the field.—In the field, unit-indicators normally are placed at the top of the affected column on the line above that allocated to the first data line of the table-page.

Example A:

	(Lower rule of boxhead)		
	1,000 acres	1,000 bushels	1,000 dollars
1940.....	6,589	62,570	35,579
1941.....	7,483	113,649	29,940
1942.....	7,966	109,745	32,698
1943.....	7,307	82,685	42,168
1944.....	6,830	40,224	40,133

Example B:
(Lower rule of boxhead)

Dol. per ton
4.58
8.11
5.80
7.30
7.00

1423. Range of influence.—A unit-indicator placed at the top of a column applies to all entries in that column on the given table-page. Its influence does not carry over to the next page; it must appear at the beginning of each new table-page.

Three special cases deserve mention:

a. Divide tables.—Here, the table is set in decks, with the entire boxhead repeated, or an entirely new boxhead shown, for each deck. (See par. 217.) The unit-indicator must appear at the top of the field in each deck. The parallel top rule of each succeeding deck actually represents a continuation of the top rule of the table, hence the range of influence of the unit-indicators in the preceding deck is terminated. A new appearance is necessary, therefore, as on any continued page.

b. Fractional-measure tables.—The same rule applies as for divide decks and continued pages. Each section of the fractional-measure table is, in effect, a continued page, and the unit-indicators must appear again accordingly.

c. Field spanners.—Here, again, the difference between the field spanner and the boxhead of the lower deck (or decks) of the divide table must be kept closely in mind.

(1) The presence of field spanners does *not* affect the range of influence of a unit-indicator placed at the top of the column.

(2) By definition, at least two levels of field spanners must appear, if any appear. The first level will appear below, but will not be a part of, the boxhead. Here, the unit-indicator will appear at the top of the first data line even though this means it will appear below, and not above, the first level of field spanner. In spite of this, its influence is maintained to the bottom of the table-page,

irrespective of the presence of other field spanners cutting the column rules. The only way to interrupt its influence is to insert a different unit-indicator in the column.

(3) If the unit-indicator appears at the top of the column in a table with field spanners, field spanners should not be used for the purpose of specifying unit-indicator change below. Either the upper unit-indicator should be placed in a field spanner, or the lower one should be removed from the field spanner and run as a unit-indicator, as such.

(4) Where the field spanner includes or consists of a statement of unit, its influence extends to the next field spanner or to the bottom of the table-page, whichever appears first.

1424. Italics versus parentheses.—Where the material is in letterpress, the unit-indicator is set in italic and placed at the top of the column. Unit-indicators are not enclosed in parentheses in letterpress composition.

If the material is typed for offset and the unit-indicator is inserted on the regular typewriter, italic is not available; therefore, parentheses are used.

In each case the intent is to make the unit-indicator stand out in its position at the top of the column.

1425. Capitalization.—Capitalization differs according to whether the unit-indicator appears at the top of a column, as in par. 1422, above; or whether it appears in a field spanner.

a. At top of column.—When at the top of a column, the unit-indicator is given an initial cap. That is, if it starts with a word, the starting word carries an initial cap; succeeding words do not. This is true in both letterpress and offset material.

Example A-1. Right:

Dollars	1,000 acres	Thous. of dol.
754	29	7,562
629	55	4,138
385	32	7,296

Example A-2. Wrong:

dollars	1,000 Acres	Thous. of Dol.
754	29	7,562
629	55	4,138
385	32	7,296

b. In a field spanner.—If the sole purpose of the spanner is to specify the unit-indicator, normal spanner rules apply; that is, it should appear in lower case (This is in lower case), not in caps and lower case (This Is in Caps and Lower Case), nor in caps (THIS IS IN CAPS).

Where the unit-indicator appears parenthetically at the end of a field spanner, it should be run in without a cap in both letterpress and offset.

Number (thousands)	Value (thousands of dollars)

1426. **Style and abbreviation.**—The style is as succinct as possible. Include no more than that which is absolutely necessary to carry the meaning. Normally, space is at a distinct premium. Abbreviate freely, as long as the meaning is perfectly clear.

Certain liberties may be taken with expressions. Thus, "Thousands of dollars" may be condensed to "Thous. dols.," "1,000 dollars" or "1,000 dols.," as necessary. However, it is desirable that consistency be maintained in such treatment, particularly within the same table.

Sec. 14-D. The Field Spanner (1431-1434)

1431. **Definition.**—The field spanner is a type of spanner appearing recurrently within, and constituting a component part of, the field. It is commonly confused with the complete boxhead which appears over each deck of a divide table.

This confusion may be minimized if the field spanner is thought of as a stub center head transposed into the field in cases where—

- a. No room is available to repeat the stub, and
- b. The stub, if repeated, would be identical in every detail (except for the center head represented by the field spanner) as the stub already shown.

Actually, the field spanner represents the uppermost spanner of a boxhead, of which the remaining portion, identical with the boxhead of the table, is not shown at each repetition. Thus, if the entire box were repeated each time, the uppermost field spanner would be transposed to the top of the table to become the uppermost spanner of the boxhead of the first deck, and the table would become a divide table.

Example A-1. Table with field spanners; compare with example A-2, divide table:

Country of birth	Total	Male	Female	Total	Male	Female
	The State			Urban		
All countries.....						
England.....						
Scotland.....						
* * * *						
All other.....						
	Rural-nonfarm			Rural-farm		
All countries.....						
England.....						
Scotland.....						
* * * *						
All other.....						

Example A-2. Divide table; compare with example A-1, table with field spanners:

Country of birth	The State			Urban		
	Total	Male	Female	Total	Male	Female
All countries.....						
England.....						
Scotland.....						
* * * *						
All other.....						
Country of birth	Rural-nonfarm			Rural-farm		
	Total	Male	Female	Total	Male	Female
All countries.....						
England.....						
Scotland.....						
* * * *						
All other.....						

1432. **Preferred usage.**—The field spanner should be avoided except where no other means is available for proper description of the data concerned. Preferably, several conditions should be fulfilled before its use is considered. (See also par. 1432c (2), below.)

- a. The table should be one consisting of a series of blocks of data arranged both in decks and panels, with—
- b. All data in each deck having a common stub, but requiring a different center head; and with all data in each panel having a common box head but requiring a different uppermost spanner; and—
- c. It is impossible or undesirable to repeat the stub for each panel (fractional-measure table, or the entire box for each deck (narrow-divide table), because—
 - (1) Not enough room is available, or
 - (2) Each deck is so shallow, and each panel has so few columns, as to demand too much space for repetition of the complete stub, or of the complete boxhead.

1433. **Problems.**—The following instances represent common problems and suggested solutions:

- a. **Where stub can be repeated in one-half, or one-third, measure without too great sacrifice in space.**—Here, shift the field-spanner statement to a center head in the repeated stub.
- b. **Where the entire box can be repeated for each deck without too great sacrifice in space.**—In this case, repeat the box, convert each field spanner to an uppermost spanner, and thereby make the table a divide table.
- c. **Where the field spanners extend across the entire body of the table.**—Here, the suggested procedure varies according to the nature of the head statement.
 - (1) **Statement of universe.**—Place it as a center head in the stub if it can be condensed into not more than three lines. Otherwise, use the field spanner.

(2) *Unit-indicator*.—If the statement specifies some type of derived measure, such as percent, median, average, etc., it usually will be satisfactory to transpose it to the stub as a center head if the rest of the table is devoted to frequencies. However, if a statement such as “millions of dollars,” “thousands of short tons,” etc., is involved, it usually is wiser to leave it as a field spanner.

1434. Incorrect placement of field spanners.—When field spanners are used, it is important that four common errors be avoided.

a. *Upper and lower rules extending through stub.*—Even where the spanner head applies to the entire field, the upper and lower spanner rules should never extend across the stub.

Example A-1. Wrong:

Year	Average	Jan.	Feb.	Mar.	Apr.	May	June
Total operating revenues (millions of dollars)							
→ 1918.....	410.5	285.4	290.0	336.4	371.6	379.0	395.2
1919.....	432.0	397.2	352.4	377.4	389.5	413.9	426.1
* * *							
Freight ton-miles (millions)							
→ 1927.....	39,559	39,233	37,259	41,817	37,111	40,116	38,477
1928.....	39,769	36,289	35,723	39,486	35,887	39,263	37,307
* * *							

Example A-2. Right:

Year	Average	Jan.	Feb.	Mar.	Apr.	May	June
Total operating revenues (millions of dollars)							
→ 1918.....	410.5	285.4	290.0	366.4	371.6	379.0	395.2
1919.....	432.0	397.2	352.4	377.4	389.5	413.9	426.1
* * *							
Freight ton-miles (millions)							
→ 1927.....	39,559	39,233	37,259	41,817	37,111	40,116	38,477
1928.....	39,769	36,289	35,723	39,486	35,887	39,263	37,307
* * *							

b. *Head for first deck placed as an uppermost spanner of table boxhead.*—This is incorrect because—

(1) Any head appearing at the top of, and as a part of, the boxhead applies to all decks down to the bottom of the table, or until the entire boxhead is repeated (or a new boxhead presented) as in a divide table.

(2) The basic idea in using the field spanner is that the table boxhead applies to all decks; the variation is confined to the affected portion of the field. Where the first level of field spanner is placed as an uppermost spanner of the boxhead, it means that all of the boxhead applies to the first deck, but only a portion of it is supposed to apply to all succeeding decks. This inconsistency is confusing to the user.

(3) The first deck is thereby deprived of a head parallel with those shown for all succeeding decks.

Example B-1. Right:

Age	Total	Male	Female	Total	Male	Female
→	The State			Urban		
→	Rural-nonfarm			Rural-farm		

Example B-2. Wrong:

Age	The State			Urban		
	Total	Male	Female	Total	Male	Female
→						
→	Rural-nonfarm			Rural-farm		

c. *Head for first deck placed as undercut spanner of table boxhead.*—This procedure is incorrect for the same reasons as stated in the preceding case. Either all of the boxhead should apply to all decks, or none of it should. If all of it is to apply, the field spanner for the first deck should not be a part of the boxhead. If none of the boxhead is to apply to other decks, then the entire boxhead should be repeated for each deck and the table made a divide table. However, where the table is extremely tight, this technique is acceptable, though undesirable, if the space saved makes it possible to squeeze the table on the page. In example C, below, note that no space is saved. However, if the stub box contained a 3-line stub head, space-saving would result. In contrast, the procedure shown in example B-2 is never acceptable.

Example C. Wrong (for “right” version, see example B-1, above):

Age	Total	Male	Female	Total	Male	Female
→	The State			Urban		
→	Rural-nonfarm			Rural-farm		

d. Omission of head for first deck.—The usual case is where the first deck represents a summary section of the table. Here, there is a tendency to assume that the table title will carry the story, or that the reader will take the summary nature of the first deck for granted. In consequence, the field spanner is erroneously omitted for the first deck, even though such a head appears for all succeeding decks. This is incorrect; if any deck carries a field spanner, then all should carry one.

Example D-1. Wrong:

AGE OF THE WHITE POPULATION, FOR CITIES OF 25,000 INHABITANTS OR MORE, BY CITY SIZE-GROUPS: 1920 TO 1940

Census year	All ages	Under 5	5 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 44	45 and over
1940.....									
1930.....									
1920.....									
	→ (What is the area covered by this first deck?)								
In cities of 100,000 inhabitants or more									
1940.....									
1930.....									
1920.....									
In cities of 25,000 to 100,000 inhabitants									
1940.....									
1930.....									
1920.....									

Example D-2. Right:

AGE OF THE WHITE POPULATION, FOR CITIES OF 25,000 INHABITANTS OR MORE, BY CITY SIZE-GROUPS: 1920 TO 1940

Census year	All ages	Under 5	5 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 44	45 and over
	→ Total								
1940.....									
1930.....									
1920.....									
In cities of 100,000 inhabitants or more									
1940.....									
1930.....									
1920.....									
In cities of 25,000 to 100,000 inhabitants									
1940.....									
1930.....									
1920.....									

Sec. 14-E. Braces (1441-1448)

1441. Definition.—The brace is a device for indicating the relationship of a given line to a group of lines, or of a smaller group to a larger group, and vice versa. Specifically, it provides a means of indicating the funnelling together of two or more data lines into fewer combined lines and a subsequent reexpansion to a greater number of lines. Braces should be avoided where possible.

a. Types of braces.—Two types of braces are used; they may be referred to as the contracting brace (}) and the expanding brace (}). These terms are descriptive of their function as the table is read from left to right.

Example:

Area A.....	646	}	990	{	114,007
Area B.....	832	}		{	269,324

1442. Principle of placement.—The following rules apply:

a. Point toward smaller group.—Braces should be placed so that the point is toward the fewer number of entries and the spreaders embrace the larger number of entries.

Example A-1. Right:

$$A \left\{ \begin{array}{l} a \\ b \\ c \end{array} \right.$$

Example A-2. Wrong:

$$A \left. \begin{array}{l} a \\ b \\ c \end{array} \right\}$$

Example B-1. Right:

$$\begin{array}{l} A \\ B \end{array} \left\{ \begin{array}{l} a \\ b \\ c \end{array} \right.$$

Example B-2. Wrong:

$$\begin{array}{l} A \\ B \end{array} \left. \begin{array}{l} a \\ b \\ c \end{array} \right\}$$

Example C-1. Right:

$$\begin{array}{l} A \\ B \\ C \end{array} \left\{ \begin{array}{l} a \\ b \end{array} \right.$$

Example C-2. Wrong:

$$\begin{array}{l} A \\ B \\ C \end{array} \left. \begin{array}{l} a \\ b \end{array} \right\}$$

b. Placed at the right of column rule.—Braces should be placed at the right of the intervening column rule when the entries affected are in different columns.

Example D-1. Right:

White.....	832	}	990	{	269,324
Nonwhite.....	646	}		{	114,007

Example D-2. Wrong (braces on wrong side of column rule):

White.....	832	}	990	{	269,324
Nonwhite.....	646	}		{	114,007

1443. Stub listing determined by maximum lines needed.—Where braces are used, the stub listing must account for all lines on which data are shown separately in any column. The stub should not be restricted to the captions necessary for the entries which appear in the first column. Otherwise, where the detail is expanded, the additional lines may lack stub captions.

Example A-1. Right (expansion lines explained):

White.....	}	224	{	172	196
Nonwhite.....				163	129

Example A-2. Wrong (expansion lines not explained):

All races.....	}	224	{	172	196
				163	129

1444. Braces rarely appear singly.—Braces usually, though not always, appear in groups of two or more, although not within the same column. The only instance where a single brace (always a contracting brace) appears on a given line within the field is where its influence extends to the right-hand edge of the table-page (or to the next repetition of stub in a fractional-measure table). Here, there is no need for an expansion brace to appear.

1445. The contracting brace (}).—This is used wherever the figures for two or more consecutive stub entries are available only in combination.

Example:

Hand sprayers.....	}	3,024	|	2,123
Power sprayers.....				

a. It is placed with its spreaders pointing to the left and embracing the group of lines for which the combination entry is to be shown (including overrun lines). Its point is directed toward the single cell entry on the right into which the preceding lines are being funnelled.

b. The spreaders should encompass the space occupied by the stub line-captions which describe the entries preceding the brace, not merely the space occupied by the entries themselves. If the line captions overrun and the cell entries are shown against the top line (see par. 1014a), the braces should be spread to include the overruns clear across the table.

c. Cells which cease to be applicable because of the brace are considered to be braced out of existence. They should always be left blank. They should not carry data, leaders, hyphens, or footnote references.

d. A footnote reference relating to the combination entry, or relating to any one of the component lines thus consolidated, is placed against the combination entry. It is not inserted in the cells above or below it which have been braced out.

e. The influence of the brace extends to the right until an expansion brace is encountered; until the edge of the table page is reached; or, in a fractional-measure table, until a new stub is reached.

1446. The expanding brace ({).—This is used against figures in those cases where a combination line created by a contracting brace is reexpanded to two or more (but not necessarily all) of the original stub lines.

Example:

Hand sprayers.....	}	3,024	|	4,146
Power sprayers.....				2,739

a. It is placed with its spreaders pointing to the right, embracing the group of lines for which the entries are to be again shown separately. Its point is directed toward the single cell entry on the left which is being expanded.

b. The spreaders invariably encompass the space occupied by the line captions (in the stub) which describe the entries that follow the brace. Their spread is not limited to the space occupied by the following entries, as such.

c. The line caption which appears on the given line in the stub automatically applies to each row of entries thus again shown separately.

d. When a group of lines is braced to a combination entry, no line should be included within the spreaders where the separate entry is known to be zero or where no entry is applicable. Where it seems to be essential that the brace include such a line, the combination entry should be footnoted to give the known information unless the purpose of the brace is to prevent disclosure; that is, to prevent the reader from identifying the specific person or firm to which the statistics relate.

1447. Range of influence.—The influence of a brace is never interrupted by a column rule, any more than the range of a stub caption is interrupted.

The sole exception to this is where a new series of stub captions appears (new stub) as in a fractional-measure table. In this case, new braces must be inserted, even though the new stub is identical with the old, and even though identical line captions happen to line up in the two (or more) stubs.

1448. Braces not used against column heads.—Except in rare instances, braces should not be used to consolidate entries for adjoining columns. The use of braces is best restricted to consolidation of data appearing in lines. Where a consolidated entry is necessary for adjoining columns, handle as follows:

a. Preferred method.—Place the entry in one column; footnote both cells. The entry should normally be placed in the cell in which the major portion of the combined entry would appear if available separately. Footnote the combined entry; also insert the same footnote reference in the adjoining cell which has thereby been deprived of its entry. This method is most suitable where only one or two lines are involved.

Where a large number of lines are affected, particularly a consecutive block of lines, the footnote might well be placed against the column heads, reading, for example, "Figures for other races included with those for Negro for 1870 and earlier years."

Example A-1. Preferred:

Census year	White	Negro	Other races
1940.....	12,516	8,742	651
1900.....	9,248	5,219	384
1890.....	6,543	2,824	(1)
1880.....	4,123	1,131	(1)
1870.....	1,234	600	100

¹ Statistics for "Other races" included with Negro for 1890 and 1880.

Example A-2. Undesirable:

White	Negro	Other races
12,516	8,742	651
9,248	5,219	384
6,543	2,824	
4,123	1,131	
1,234	600	100

b. Acceptable method.—Where an even number of columns is involved, as in example A-1, break the column rules separating the columns. Then center the combined entry (without a brace) under the group of columns. The breaking of column rules is troublesome to the printer and therefore is costly where used to excess.

This method is not practicable where an odd number of columns is involved since the combined entry would fall directly into the middle column. Perhaps the greatest justification for horizontal braces is where the entries in an odd number of columns must be consolidated to a single entry.

Example B-1. Acceptable, but troublesome to printer:

Census year	White	Negro	Other races
1940.....	12, 516	8, 742	1, 651
1900.....	9, 248	5, 219	1, 884
1890.....	6, 543	3, 824	
1880.....	5, 123	2, 131	
1870.....	4, 234	1, 600	1, 100

Example B-2. Wrong (if last two entries are for all groups combined):

A	B	C
742	632	849
493	701	275
508	946	361
	356	
	748	

Example B-3. Acceptable (troublesome to printer. Also, note effect on caption spacing in stub):

Census year	White	Negro	Other races
1940.....	12, 516	8, 742	1, 651
1900.....	9, 248	5, 219	1, 884
1890.....	10, 367		
1880.....	7, 254		
1870.....	4, 234	1, 600	1, 100

INDEX

	Paragraph	Paragraph
Abbreviations:		
Boxhead.....	1209	Boxhead (<i>see also individual component parts</i>):
"Do." not used for "ditto".....	963	Abbreviations used.....
Footnote, use in.....	662	Allocation as compared with stub.....
Headnote, use in.....	523	Banner head.....
States.....	347, 1109, 1114	Capitalization.....
Unit-indicator.....	1426	Captions running up.....
Additive lines.....	945	Captions should run across, not up.....
"All" vs. "Total".....	958	Column head not used.....
Allocation to stub and boxhead:		Column head.....
General relationship.....	701	Component parts.....
Influence of table purpose.....	702	Continuous.....
Mechanical advantages of each.....	712	
Principles, summary.....	711	Dates, use of.....
Relationship between tables in a series.....	703	Definition.....
Space requirements of each.....	713	Footnote numbering sequence.....
Analytical space break (<i>see also Reader break and Space break</i>):		Heads in field, not in box.....
Definition.....	1023	Horizontal rules.....
Insertion.....	1024	Levels of box.....
Analytical table.....	132	Mechanical advantages.....
"And," use in time-reference segment of title.....	367	Presentation principles.....
Appendix tables, numbering of.....	423	Read-in heads.....
Arabic numerals (<i>see also Asterisk, Capital letters, Small letters, Table number, etc.</i>):		Space problem.....
Reference symbols, use as.....	633	Space requirements.....
Table number, use as.....	402-403	Spacing of captions.....
Area or space segment of title:		Spanner head.....
"By," use of.....	351	Style and punctuation.....
Cities.....	347	Undercut spanner.....
City size-groups.....	348	
Continental United States.....	344	Braces:
Counties.....	350-352	Appear singly only in rare instances.....
Definitions.....	303, 341	Cell entry, use with.....
		Contracting brace.....
"For," use of.....	351	Definition.....
Omission and curtailment.....	350	Expanding brace.....
Placement.....	342	Not used against column heads.....
Regions and divisions.....	346	Placement.....
"Selected" or "Specified," use of.....	352	Range of influence.....
States.....	345	Stub, effect on.....
Terminology.....	343	Brackets, use in headnote.....
Territories and possessions.....	344	
United States.....	344	Broad table:
Urban and rural.....	349	Captions never run up.....
Areas (<i>see also Area segment of title, Cities, Regions and divisions, etc.</i>):		Defined and described.....
Distinction in banner head of standard tables.....	1262	Placement on page.....
Spelling of names.....	1117-1118	Broad-divide table.....
Standard stub listing.....	832, 1101-1116	Broad-measure defined.....
Asterisk:		"By":
Headnote explanation.....	513	Cross-classifying term.....
Placement of footnote bearing symbol.....	656	Spanner head, use in.....
Reference symbol, use as.....	633, 640	Title usage.....
Banner head (<i>see also Spanner head</i>):		Versus "For".....
Acceptable uses.....	1262	Capital letters (<i>see also Arabic numerals, Small letters, Table number, etc.</i>):
Definition.....	1202, 1261	Reference symbols, use as.....
Improper uses.....	1263	Table number, use as.....
Quasi-banner.....	1264-1266	Capitalization:
Bearoff:		Boxhead.....
Definition.....	1324	Center head in stub.....
In boxheads.....	1211	Column head or caption.....
Blank cell:		Headnote.....
Reference-symbol placement.....	637	Line caption, data line.....
Types of entries.....	1413	Line caption, total and subtotal.....
Block:		Titles.....
Definition.....	203	Unit-indicator.....
Levels assigned in stub.....	916	Cell:
Rules (horizontal), use of.....	1313-1314	Braces in cells.....
Boldface type (<i>see also Italic type and Type specification</i>):		Definition.....
Horizontal rule, use with.....	1312	Function and purpose.....
Line caption, total and subtotal.....	959	Function and purpose.....
Not used to indicate coordinate level.....	1032	Grand-total cell.....
Stub, use in.....	1032	"Read in" rarely made to cell entries.....
Table number, use in.....	308	Reference range of symbols.....
Boxed-in tables.....	226, 1334	Reference symbol placement.....
		Types of entries.....
		Census dates (<i>see also Dates</i>):
		Boxhead, use in.....
		Stub listing.....
		Time-reference segment of title, use in.....

INDEX

	Paragraph		Paragraph
Census-size page, specification	211	Column head or caption—Continued	
Census tracts, stub listing	1115	Unit-indicator	1225
Center head (see also Subhead):		Word order	1224
Comparison with colon and dash line	913	Column head, total and subtotal:	
Definition	203, 812, 911	Definition	1231
Level combinations	918-920	Grand-total cell	1233
Levels of center heads	915	Meanings of term "total"	1232
Level distinction	916	Spanners covering	1254
Omission in special cases	917	Column number, definition	1202
Purpose and function	912		
Range of influence	914	Combination of head levels. See Center head.	
Shifted to total lines	955	Comma (see also Colon, Dash, Punctuation, Semicolon, etc.), use in time-reference segment of title	363
Citations of source. See Source note.		Common footnote or reference number. See Recurrent references.	
Cities (see also City size-groups and Metropolitan districts):		Complex tables	133
Area segment of title, use in	347, 350	Composite forms of tables	212, 225
Independent cities	1108	Composition table titles	335
Listing under State heads	1109	Contents, tables of (see also Leader work and Tables of contents), tabular form	414
Specification of area designation	1111	Continental United States. See United States.	
State name imperative, special cases	1109	Continued line, definition	819
Stub listing	1109		
City size-groups (see also Cities and Metropolitan districts):		Coordinate levels:	
Area segment of title, use in	348	Boldface type not used	1032
Stub listing	1110	Influence on indent	1002
"Class," use in stubhead	903	Counties:	
Classification level:		Area segment of title	350-352
Definition	1002	Spelling of names	1117
Influence on indent	1002	Stub listing	1108
Classification segment of title:		Cross-classification:	
"By," use of	336	Boxhead, use of "by"	1253
"Composition" table title used only once	335	"By" versus "For"	351
Cross-classification:		Stubhead, indication in	902
Limiting explanation	336	Title usage	333, 334, 336, 351
Splitting of segment	333	Cross-references:	
Variation in description	334	Footnotes at end of table	652
Definition	303, 331	Headnote	512
Placement	332	Stubhead or box	909
Wording	307		
Classification term substituted for "Total"	643	Dash, punctuation mark (see also Colon, Comma, Hyphen, Punctuation, etc.):	
Codes as cell entries	1413	Confusion of internal with terminal dash	930
Coextensive counties and cities	1108	Key-phrase title, use in	313
Colon (see also Punctuation, and individual marks):		Metropolitan district names, use in	1114
Introduces leader work	112	"Read-in" significance	926-927
Introduces text tabulation	121	With table number	401
Key-phrase title, use in	313	Dash (or read-in) head, boxhead:	
Time-reference segment of title, use in	363	Avoidance of misunderstanding	1243
Colon heads, boxhead:		Avoided over total columns	1245
Colon column heads not used	1206	Clarifies paired distributions	1242
Single subentry	1206	Definition	1241
Colon line:		Incorrect use	1248
Comparison with center head	913	"Reading in" to terminal groups	1247
Comparison with dash line	923	"Read in" rarely made to cell entries	1244
Definition	813, 922	Residuals exempted	1246
Leaders not used	1017	Dash (or read-in) line, stub:	
Single subentry	924	Comparison with center head	913
Space break insertion above, not below	1027	Comparison with colon line	923
Substituted for center head	917	Consecutive read-in lines permissible	931
Uses	925	Dash, confusion of internal with terminal	930
Column (see also Boxhead, Column head, and Field):		Definition	813, 926
Definition	205, 1402	Leaders not used	1017
Space allocation	1324	Not a heading	913
Vertical rule, use of	1327-1328	"Read in" defined	927
Column head or caption (see also Boxhead, Column):		Residual subentries	923
Abbreviations used	1209	Single subentry	929
Additive and nonadditive columns	1223	Space break insertion above, not below	1027
Braces not used against column heads	1448	Space requirements of stub	932
Capitalization	1210, 1226	Test of read-in application	933
Colon head not used	1206	"Dashes" versus "leaders"	1302
Definition	204, 1202, 1221	"Dashes" versus "rules" (see also Rules)	1302
Limitations	1204	Data line (see also Line caption):	
Prime and nonprime columns	1222	Classes and types	942-943
Reference range of symbols	641-642	Definition	941
Reference symbol placement	637	Type specification	948
Rule (vertical), use of	1227	Date column	966
Single level	1225	Dates (see also Census dates, Time-reference segment of title, etc.):	
Space problem caused by wordiness	1205	Boxhead, use in	365
Spacing	1211	Banner head	1262
Style and punctuation	1209	Reference symbol placement	637
		Standard stub arrangement	833

INDEX

Definitions:	Paragraph	Definitions—Continued	Paragraph
Additive data-lines	945	Structural types of tables	211
Analytical space break	1023	Stub	203, 802
Area or space segment of title	303, 341	Stub leaders	817, 1013
Banner head	1202, 1261	Stubhead or box	203, 811, 901, 1202
Bear-off	1324	Suffix letters	431
Block	203	Superior figures	633
Boxhead	204, 1201	Table number	202, 401
Braces	1402, 1441	Table title	301
Broad table	219	Tabular presentation	101
Broad-divide table	220	Text tabulation	121
Cell	205, 1402, 1411	Time-reference segment of title	303, 361
Center head or subhead	203, 812, 911	Title	202
Classification level	1002	Totality table (described)	434
Classification segment of title	303, 331	Tracer numbers	820
Colon line	813, 922	Undercut spanner	1202, 1271
Column	205, 1402	Unit-indicator	816, 961, 1203, 1402, 1421
Column head or caption	204, 1202, 1221	Universe segment of title	303, 321
Column head, total and subtotal	1231	Vertical rule	1321
Column number	1202		
Continued line	819	Ditto, not used by Census Bureau	963
Dash (or read-in) head	1241	Divide, definition	211
Dash (or read-in) line	813, 926	Divide table (see also individual types of tables):	
Divide	211	Boxhead rules, use of	1314
Divide table	211	Unit-indicator, use of	1423
Expansion table (described)	434, 435	Divisions, geographic (see also Regions and divisions):	
Field	205, 1401	Listing with States	1105
Field spanner	1203, 1402, 1431	Listing with regions	1103
Folio line	208	"Do," term not used by Census Bureau	963
Footnote	206, 603, 605	Document-size page, specification	211
Formal table	131	"During" in time-reference segment of title	367
Fractional-measure tables	215		
General footnote	605	Field (see also individual component parts):	
Group or line number	821	Braces	1402, 1441-1448
Heading	202	Cell	1402, 1417-1414
Headnote	202, 501	Component parts	205, 1402
Horizontal rule	1311	Definition	205, 1401
Indentation	1001	Field spanner	1402, 1431-1434
Keyed item (footnote identification)	603	Unit-indicator	1402, 1421-1426
Leader work	111	Field spanner:	
Leaders:		Definition	1203, 1402, 1431
General	1011	Horizontal rule, use of	1313, 1314
Cell leaders	1413	In narrow table	216
Stub leaders	817, 1013	Incorrect placement	1434
Line	205, 1402	Part of field, not of box	1203
Line caption	203, 941	Preferred usage	1432
Line caption, data line	814, 941	Problems	1433
Line caption, total and subtotal	815, 951	Unit-indicator, capitalization of	1425
Master table (described)	432	Unit-indicator, use of	1423
Measure	211		
Multipage box or stub	1316	Folio line	201, 208
Multipage narrow table with continuous boxhead	218	Folio number. See Page number.	
Narrow table	216	Footnote:	
Narrow-divide table	217	Definition	206, 603
Nonadditive data-lines	945	General footnote	601, 605-606
Nonprime data-lines	942	Headnote relationship	603, 612-613
One-page box or stub	1316	Numbering sequence	638-639
Overrun	1010, 1014	Omission and curtailment	615
Panel	204, 1202	Period always used at end	523, 662
Parallel rule	1312, 1322	Placement and arrangement	651-656
Parallel table:		Practices to avoid	615
Normal type	221	Presentation of footnote-type of statement improper in stubhead	908
Special type	222	Purpose	611
Parallel-divide table	223		
Prefix letters	421	Reference range of symbols	641-643
Prime lines	942	Reference symbols	631-640
Quasi-banner head	1202, 1264	Restrictions on use	606, 614
Reader break	1023	Scope of discussion	602
Reader cell	637	Source note	601, 604, 621-624
Reader column	1014	Specific footnote	601, 603, 611-615
Reader entry	637	Style	662
"Read in"	927	Tabular footnote	665
Read-in head	1241	Title relationship	613
Read-in line	813	To leader work	113
Recurrent reference	503	To title	502, 613
Reference symbol	631	Types	601
Residual item	1143	Wording	651-665
Rules, horizontal and vertical	1301		
Source note	207, 604, 621	Footnote numbering (see also Reference symbols):	
Space break	818, 1021	Leader work	113
Spanner head	204, 1202, 1251	Multipage tables	636
Specific footnote	603	New series for each table	635
Standard-series tables	411	Numbering sequence	638-639
Standard table forms	505	Placement of symbol	637

INDEX

Footnote numbering—Continued	Paragraph	Indentation:	Paragraph
Reference range of symbols	641-643	Comparative indent	1003
Symbols	633-634	Definition	1001
Total cells, columns, and lines	642	Indent spacing	1009
Footnote placement (see also Footnote numbering and Reference symbols):		Overruns	1010
Leader work	113	Purpose and function	1002
Location of footnotes	651-656	"Reverse" versus "flush" for totals	1004
Text and tables on same page	113	Selection of method	1007
Footnote symbols. See Reference symbols.		Spacing (vertical) effect on scheme	1008
		Titles	808
		Total lines (see also Boldface, Type specification, etc.):	1004-1007
"For":		Italic type (see also Boldface, Type specification, etc.):	
Title usage	351	Deduct or decrease items	1033
Versus "By"	351	Selected items of a distribution	953
Formal table:		Stub, use in	1033
Analytical types	132	Unit-indicator	1203, 1424
Bottom rule, use of	1313, 1315-1316	"Item" in stubhead	903
Class of tabular presentation	102		
Complex and simple tables	133	Leader work:	
Definition	131	Definition	111
General purpose and special purpose table	132	Footnotes to	113
Heading (see also Table number, Title, and Headnote)	202	General features	112
Parts (structural) of table (see also individual parts)	201-208	Indexes	114
Types (structural) of tables (see also individual types)	211-226	Introduced by a colon	112
Without title	125, 606	Tables of contents	114
		Leaders:	
Fourth-measure table. See Fractional-measure tables.		All leader lines	941
Fractional-measure tables:		Cell entry	1413
Defined and described	215	Colon or dash lines never take leaders	1017
Parallel rule, use of	1330	Definition	817, 1011, 1013
Unit-indicator, use of	1423	Excessive use	1325
Fractions in footnotes	664	Flush to caption	1016
Frequency tables:		Follow data-line captions	941
Numbering, using suffix letters	434-435	Omission of period	1015
Title, when appearing in same table with percent data	372	Overrun item	1014
Title, when appending percentage description	374	Periods used in offset	1011, 1013
		Purpose and function	1012
General footnote (see also Footnote), defined and described	605-606	Stub leaders	817
General purpose table	132	Unit-indicator in stub, use with	963
Group or line numbers, defined and described	821		
Hairline rules. See Rule, horizontal, and Rule, vertical.		Levels of boxhead, limitations	1204
Half-measure table. See Fractional-measure tables.		Levels of center heads. See Center head.	
Heading of table (see also individual component parts), defined and described	202	Line, definition	205, 1402
Headnote:		Line caption:	
As footnote to title	502	Classes and types	941-945
Component of heading	202	Definition	203, 941
Continued pages of table	505	Part of stub	203
Definition	202, 501	Punctuation	947
Footnote relationship	503, 612-613	Line caption, data line:	
Function	501	Additive and nonadditive lines	945
Parallel table	221	Capitalization	946
Period never used at end	523	Definition	814, 941
Practices to avoid	506	Prime and nonprime lines	942-944
Preprinted table forms	505	Punctuation	947
Presentation of headnote-type of statement improper in stubhead	908	Type specification	948
Repetition, multipage table	505	Line caption, total and subtotal:	
Restrictions on use	504	Area names, use of	1116
Specific uses	511-513	Capitalization and type specification	959
Style, including capitalization and punctuation	523	Definition	815, 951
Tables without titles	606	Indentation	1005-1006
Time factor, specification of	364	Meanings of term "Total"	952-955
Title relationship	602, 613	Placement of "Total" in combination with other wording	957
Use to curtail universe segment of title	323	Reader-break insertion above, not below	1027
Use to qualify classification segment of title	334	Rules (horizontal), use of	959, 1313-1314
Wording	621-623	"Total" versus "All"	958
		Uses	956
Horizontal rule. See Rule, horizontal.		Line numbers compared with tracer numbers	821
Hyphen:			
In column heads	1204	Master table, described	432
Metropolitan district names, use in	1114	Measure, definition	211
Rural-nonfarm and rural-farm, use in	1113	Metropolitan areas	1114
Time-reference segment of title, use in	367	Metropolitan districts, stub listing	1114
		Minor civil divisions, stub listing	1112
		Multipage box or stub, definition	1316
		Multipage narrow table with continuous boxhead:	
		Compared with parallel table	218, 221
		Defined and described	218
		Multipage table:	
		Bottom rule, use of	1316
		Footnote placement	651, 655
		Footnote treatment	636
		Headnote repetition	505

INDEX

Narrow table:	Paragraph	Period—Continued	Paragraph
As the normal table type	214	Headnote, not used at end	523
Defined and described	216	Omission before leaders	1015
Deviations caused by space requirements	214	Overruns	947, 1014
Multipage, with continuous boxhead. See Multipage narrow.		Substitute for leaders in offset	1011, 1013
Narrow-divide table:		Placement:	
Compared with narrow table with field spanners	217	Area or space segment of title	342
Defined and described	217	Braces	1442
Narrow-measure, defined	216	Broad table on page	219
Normal table. See Narrow table.		Classification segment of title	332
"Note":		Footnotes	651-656
Footnote usage	206, 605-606, 615	Leaders, in stub with unit-indicator	963
Headnote, usage avoided in	506	Reference symbols	637
Number. See Numbering schemes, Table number, Prefix letters, Suffix letters, etc.		Space breaks	1024-1030
"Number" omitted as center head	917	Time-reference segment of title	362
Numbering schemes, footnotes:		"Total" in combination with other wording	957
Boxheads	639	Unit-indicator in field	1422
Normal scheme for tables	635	Unit-indicator in stub	963
Symbols used	633-634	Universe segment of title	322
To leader work	113, 635		
Numbering schemes, tables:		Plural form versus singular in description	307
Normal scheme	406	Prefix letters (see also Suffix letters, Table number, etc.):	
Prefix letters:		Census tracts, use in	1115
Standard-series tables	424	Definition	421
Text and appendix tables	423	General use	422
Series of tables	407	Standard-series tables	424
Standard-series tables	411-414	Text and appendix tables	423
Suffix letters	434-435	Presentation unit. See Unit of presentation.	
Symbols used	402-403	Prime lines	942
Text and tabular section	407		
Numbers in footnotes	664	Punctuation (see also Comma, Colon, Dash, Period, Semicolon, etc.):	
		Boxhead	1209
"Of," use in spanner head	1253	Headnote	523
One-page box or stub, definition	1316	Leader work	112
"Other" versus "All other"	1144	Line caption, data line	947
Overruns:		Text tabulation	122
Definition	1010, 1014	Titles (Time-reference segment)	363
Indentation	1010		
Placement of cell entries with tracer numbers	1014	Qualitative and quantitative classifications, stub arrangement and listing	834-835, 1131-1133
Reader-break insertion	1029	Quasi-banner head	1264-1266
Tables with tracer numbers	947, 1014		
Tables with reader columns	1014	Reader break (see also Analytical space break and Space break):	
Unit-indicators	963	Counting off lines, overruns and totals	1028-1029
		Definition	1023
Page number as a part of folio line	208	Insertion, coordinate and noncoordinate items	1023-1027
Page size, influence on table design	211	Principles of insertion	1025
Page sizes of Bureau of Census	211	Reader cell:	
Panel:		Definition	637
Definition	204, 1202	Reference symbol placement	637
Vertical rule, use of	1326-1329	Reader columns	1014
Parallel rule (see also Rule, horizontal, and Rule, vertical):		Reader entry	637
Definition	1312, 1322		
Drafting specification	1314, 1323	"Read in":	
Horizontal rule, use as	1314	Definition	927
Vertical rule, use as	1330	Test of	933
		Cell entries for overrun captions	947
Parallel table (see also Tracer numbers):		Cell entries, placement with caption overruns	1014
Cell entries for overrun captions	947	Compared with multipage narrow table	218, 221
Cell entries, placement with caption overruns	1014	Headnote arrangement	218, 221
Compared with multipage narrow table	218, 221	Normal type, defined and described	221
Headnote arrangement	218, 221	Paging	213, 221
Normal type, defined and described	221	Special type, defined and described	222
Paging	213, 221	Stub placement	218, 221-222
Special type, defined and described	222	Title arrangement	218, 221
Stub placement	218, 221-222	Tracer numbers in stub	218, 221-222
Title arrangement	218, 221	Tracer numbers versus group or line numbers, use of	820
Tracer numbers in stub	218, 221-222	Parallel-divide table	223
Tracer numbers versus group or line numbers, use of	820		
Parallel-divide table	223	Parentheses:	
		Headnote, use in	623
Parenteses:		Unit-indicator, use with	1424
Headnote, use in	623	Parts of table. See Structural parts of table and individual parts by name.	
Unit-indicator, use with	1424	Percent data, description in title	371-374
Parts of table. See Structural parts of table and individual parts by name.		Percent tables, numbering of	434-435
Percent data, description in title	371-374	Period:	
Percent tables, numbering of	434-435	Abbreviation at end of line caption	947
Period:		Boxhead, not used in	1209
Abbreviation at end of line caption	947	Footnote, always ends with period	623, 662
Boxhead, not used in	1209		
Footnote, always ends with period	623, 662		

INDEX

Regions and divisions:	Paragraph	Paragraph
Area segment of title, use in	346, 350	Space break (<i>see also</i> Analytical space break and Reader break):
Standard stub arrangement	832	Analytical versus reader breaks
Stub listing	1103-1106	Definition
Repository tables	132	Purpose and function
Residuals:		Reverse indent, used in
Dash head	1245-1247	Placement
Dash line, use with	928	Spacing of column head captions
Definition	1143	
Maintaining identity	1144	Spanner head (<i>see also</i> Banner head, and individual components of boxhead):
Stub listings	1143-1144	Clarifying point of reference
Value varies	1002	Definition
Roman numerals, use as table number	402-403	Omission
Rule, horizontal (<i>see also</i> Rule, vertical):		Purpose and function
Boldface type, use with	1032	Top spanner in narrow-divide tables
Boxhead	1201, 1211, 1313-1314	Total columns
Definition	1311	Special purpose table
End or bottom rule of table, use as	1315-1316	Specific footnote (<i>see also</i> Footnote), definition
Parallel rule, use of	1314	"Specified" use in area segment of title
Single rule, use of	1313	Spelling of area names
Top rule of table	1314	Standard-series tables:
Total and subtotal lines, use with	959	Definition
Types	1312	Numbering scheme
Rule, vertical (<i>see also</i> Rule, horizontal):		Omission of tables in series
Column head or caption, use in	1227	Prefix letters as table numbers, use of
Combinations to be avoided	1331	Purpose and use
Definition	1321	Suffix letters as table numbers, use of
Extension at bottom of page	1333	Standard metropolitan areas
Parallel rule	1330	States:
Range of influence	1332	Abbreviations
Single rule:		Abbreviations used with city names
Bold	1327, 1329	Area segment of title, use in
Hairline or lightface	1326	Listing alphabetically or geographically
Medium	1327-1329	Listing under division heads
Space allocation	1325	Metropolitan districts, use of names in
Space requirements	1324	Required with certain cities
Specifications for	1323	Standard stub arrangements
Types and weights	1322	State name with cities, special cases
Rules (<i>see also</i> Rule, horizontal, and Rule, vertical):		Stub listing
"Dashes" versus "rules"	1302	Structural parts of table (<i>see also</i> individual parts), component parts
Definition	1301	Structural types of tables (<i>see also</i> individual types):
Drafting specifications	1314, 1323	Classification not based on number of pages
Horizontal rule	1301, 1311-1316	Composite forms
Mode of describing	1322	Definition
Tables enclosed in rules	226, 1334	Described and compared
Vertical rule	1301, 1321-1334	Narrow table as the norm
Running head:		Specific types
Conventional treatment	208	Tables in rules
Not part of table	201	Tables without stubs
Omission of time-reference segment of title, use with	368	Stub (<i>see also</i> individual component parts):
Omission of universe segment of title, use with	324	Allocation as compared with boxhead
Part of folio line	208	Areas, standard listing
Specification of State name, use as	345	Center head and subhead
Standard-series tables	414	Classification term substituted for "total"
Rural. <i>See</i> Urban and rural.		Colon and dash (read-in) lines
Rural-farm and rural-nonfarm, use of hyphen	1113	Combining center heads
"Selected," use in area segment of title	352	Component parts
Semicolon (<i>see also</i> Comma, Colon, Punctuation, etc.) use in time-reference segment	363	Continued line
Series tables. <i>See</i> Standard-series tables.		Continuous
Simple table	133	Definition
Single rule (<i>see also</i> Rule, horizontal, and Rule, vertical):		Indentation
Horizontal rule, use as	1313	Leaders
Vertical rule, use as	1322, 1324-1329	Line caption, data line
Singular versus plural form in description	307	Line caption, total and subtotal
Size-referent, omission or use	348	Mechanical advantages
Small letters (<i>see also</i> Arabic numerals, Capital letters, etc.):		Multipage narrow table with continuous boxhead
Reference symbols, use as	633	Organization of discussion
Suffixes to table numbers	402-403, 431-435	Parallel table
Table number, use as	402-403	Presentation principles
Table title, use in	308	Quantitative and qualitative classifications, standard listing
Source note:		Reference range of symbols
Definition	207, 604, 621	Reference symbol placement
General principles	622	Relationship between stubs of varying detail
Headnote explanation	512	Residual items
Unpublished manuscript	624	Space allocation
Use	623	Space breaks
Source tables	132	

INDEX

Stub—Continued	Paragraph	Text tables:	Paragraph
Space requirements	713	Footnotes	635, 638, 654
Standard stub arrangements	831-835	Need for title	124
Stubhead or box	811, 901-909	Numbering	407
Time periods, standard listing	1121-1124	Summary tables	132
Type specification	1031-1033	Text tabulation:	
Unit-indicator	816, 961-966	Definition	121
		Disadvantages	124
		Footnote placement when table at bottom of page	654
		Footnote, use of	606
		General features	122
		Introduced by a colon	122
		Overuse and misuse	123
		Release table without title	125
Stub leaders. <i>See</i> Leaders.		Third-measure table. <i>See</i> Fractional-measure tables.	
Stubhead or box:		Time periods. <i>See</i> Census dates, and Dates.	
Amplifying title	907	Time-reference segment of title:	
Captions to be avoided	908	"And," use of	367
City, town, county specification	1111	Definition	303, 361
Coverage	902	"During," use of	367
Cross-references in	909	Hyphen, use of	367
Definition	203, 811, 901, 1202	Listing of dates	364-368
Order of listing	904-906	Omission and curtailment	368
Purpose	901	Placement	362
"Subject," "Class," or "Item," use of	903	Punctuation	363
Style (<i>see also</i> Capitalization, Punctuation, Wording, etc.):		"To," use of	367
Boxhead	1209	Title (<i>see also</i> individual component parts):	
Footnote	662	Amplified by stubhead or box	907
Headnote	523	Area or space segment	303, 341-352
Title	308	Arrangement of segments	304
Unit-indicator	1426	Capitalization and indent	308
		Classification segment	303, 331-336
		Comparison with stubhead	902
		Component parts or "title segments"	303
		Coverage and brevity	302, 306, 336
		Definition	202, 301
		Footnote relationship	613
		Footnote to title not used	615
		Function	302
		Headnote relationship	502, 613
		Parallel table	221
		Parallel versus multipage narrow tables	218
		Percent data, description of	371-374
		Relationship between content and arrangement	304
		Time-reference segment	303, 361-368
		Title-writing methods	311-314
		Treatment of segments	305
		Type size	309
		Universe segment	303, 321-325
		Word division	308
		Wording	307
		Title segments	303
		Title writing methods	311-314
		"To," use in time-reference segment of title	367
		"Total," as a term:	
		Meanings	952-958, 1232
		Placement	957
		Totality table. <i>See</i> Master table.	
		Total cells, columns, and lines (<i>see also</i> Cell, Column head, Line caption):	
		Aggregate	954, 1232
		Area names	1116
		Boldface	959, 1032
		Captions	815
		Class in itself	955, 1232
		Double-duty totals	1254
		Footnoting	642-643
		Grand-total cell	956, 1233
		Indentation	1004-1007
		Meanings, differences in	952-955, 1232
		Multiple uses	956
		Placement in captions	957
		Reader-break grouping, effect on	1028
		Result of summation	953, 1232
		Spanner heads	1254
		Style	959
		"Total" versus "all"	958
		Total rule. <i>See</i> Rule, horizontal, and Rule, vertical.	
Table of contents, standard-series tables	414		
Tables in rules or boxes	226, 1334		
Tables in series. <i>See</i> Standard-series tables.			
Tables without stubs	224		
Tables without titles (<i>see also</i> Text tabulation):			
Footnoting	122-125, 606		
Release tables	125		
Tabular footnotes, introduction required	665		
Tabular presentation:			
Definition	101		
General classes	102		
Terminology. <i>See</i> Wording.			
Territories and possessions:			
Stub listing	1102		
Title, use in	344		

INDEX

	Paragraph	Unit-indicator—Continued	Paragraph
Tracer numbers:		Parentheses, use of.....	1203
Bottom boxhead rule, use of.....	1313	Part of field, not of box.....	1203
Compared with line or group numbers.....	821	Placement in field.....	1422
Definition.....	820	Placement in stub.....	963
Leaders, use with.....	1014	Presentation improper in stubhead or box.....	908
Line caption overrun.....	947	Range of influence.....	1423
Not used in multipage narrow table.....	218	Reference range.....	964
Parallel table.....	221	Restrictions on use.....	962
Type specification (see also Boldface, and Italic):		Spanner head.....	1252, 1253
Center heads in stub.....	916	Specify units of measure clearly.....	965
Line caption, data line.....	948	Style and abbreviation.....	1426
Line caption, total and subtotal line.....	959	Undercut spanner.....	1272
Stub, boldface and italic.....	1031-1033	Universe segment of title.....	325
Titles.....	309	Universe segment of title:	
Vertical rule.....	1323	Curtailment by use of headnote.....	323
Types of tables (see also Structural types of tables and individual types).....	132, 137, 211-226	Definition.....	303, 321
Undercut spanner:		Omission of portion thereof.....	324
Conditions of use.....	1272	Placement.....	322
Definition.....	1202, 1271	Unit-indicator.....	325
Underscore (see also Rule, horizontal):		Unpublished data, source citation.....	624
Center heads, typing.....	919	Upright table. See Narrow table.	
Total lines (field only).....	959	Urban and rural:	
Unit column.....	964, 966	Area segment, use in.....	349
Unit of presentation in stubhead.....	908	Stub listing.....	1113
Unit of quantity. See Unit-indicator.		Vertical rule. See Rule, vertical.	
United States:		Word order of column heads.....	1224
Stub listing.....	1102	Wording:	
Title, use in.....	344	Area segment of title.....	343
Unit-indicator:		Basis of size classification.....	348
Capitalization.....	1425	Classification segment of title.....	307
Colon line, indication in.....	925	Footnote.....	661-665
Column head or caption, use in.....	1225	Headnote.....	521-523
Columnar arrangement.....	966	Percentage titles.....	373
Definition.....	816, 961, 1203, 1402, 1421	"Selected" versus "Specified".....	352
Field spanner, use in.....	1433	Title.....	307
Headnote explanation.....	512	Total columns and lines.....	957
Italic type.....	1033, 1203	Use of "and," "during," "to," and hyphen (-) compared.....	367
Italics versus parentheses.....	1424	Yellowstone National Park, listing.....	1108
Leaders against.....	963		
Line-up in stub.....	963		