General Overview of the Alphabetical Indexes of Industries and Occupations

The *Alphabetical Indexes of Industries and Occupations* were developed primarily for use as an aid in classifying a respondent's industry (employer's type of business) and occupation (employee's type of work) as reported in demographic surveys conducted by the Census Bureau. Clerical Industry and Occupation coding staff in the National Processing Center (NPC) in Jeffersonville, Indiana, converts the written questionnaire responses to codes by comparing these descriptions to entries in the indexes.

The *2018 Alphabetical Indexes* list over 22,000 industry descriptions and 32,000 job titles in alphabetical order. These are comprehensive lists of specific industries and occupations developed over time and continuously updated through review of the American Community Survey, decennial censuses and other survey responses.

Each job title and industry description has been assigned a pair of numeric codes. The first is the 4-digit number used for assigning a Census industry or occupation. The other is the 6-digit Federal standard code for industry, the *North American Industry Classification System* (NAICS)[1] code, or for occupation, the *Standard Occupational Classification* (SOC)[2] code. Clerical coders, specialized in industry and occupation coding, assign the best code to industry and occupation write-in data from surveys in order to classify the responses into appropriate industry and occupation categories.

Coverage

The indexes list industry descriptions and job titles reported in earlier censuses and surveys. In order for an industry description or job title to be included in the index, it must have been reported in a census or survey several/multiple times. Consequently, new industry descriptions or occupation titles take time to appear in the index. However, new entries are added to each of the industry and occupation indexes continuously. For example, many of the original job titles included in the occupation index came from the *Dictionary of Occupational Titles* (DOT)[3] published by the U.S. Department of Labor, Employment and Training Administration. The DOT has been replaced by the Occupational Information Network (O*Net)[4], which has been updated with each revision of the SOC.

Classification Systems

The classification systems used in these indexes organize workers into industry and occupation categories. These systems group titles describing similar industries or similar occupations into homogeneous categories and assign a code to each category. Both indexes identify each industry description and job title by the code of the category to which it is best assigned.

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[1] https://www.census.gov/eos/www/naics/index.html
[2] https://www.bls.gov/soc/
[3] https://occupationalinfo.org/
[4] https://www.onetonline.org/

Industry Classification

Industry data had been collected during decennial censuses on a continuous basis since 1910 until 2000, when the data began to be collected in the American Community Survey (ACS). The Island Areas Census, which includes the United States Virgin Islands (USVI), Guam, American Samoa and the Commonwealth of the Northern Mariana Islands (CNMI), still collect these data. Industry data also continue to be collected on other household surveys such as, the Current Population Survey (CPS) and the Survey of Income and Program Participation (SIPP).

Industry data describe the kind of business conducted by a person's employing organization. These questions ask: "What was the name of this person's employer, business, agency, or branch of the Armed Forces?," "What kind of business or industry was this?," and an item with four check boxes from which respondents are to select one to indicate whether the business was primarily manufacturing, wholesale trade, retail trade, or other (agriculture, construction, service, government, etc.). These questions were asked of all people 15 years old and over who had worked in the past 5 years. For employed people, the data refer to the person's job during the previous week. For those who worked two or more jobs, the data refer to the job where the person worked the greatest number of hours. For unemployed people and people who are not currently employed, but report having a job within the last five years, the data refer to their last job. These questions capture the industrial composition of the American labor force.

Currently, codes are assigned to the written industry responses using the 2017 Census Industry Code List based on the 2017 North American Industry Classification System (NAICS) published by the Executive Office of the President, Office of Management and Budget. The 2017 Census Industry Code List consists of 270 categories for employed people, including military, classified into 20 sectors.

The first NAICS was developed in 1997 as an improvement over the Standard Industrial Classification (SIC) system that had been previously updated from the 1930s through 1987. The NAICS has been updated every five years – 2002, 2007, 2012, and 2017. Based on these changes, the Census Industry Code List was updated accordingly. The NAICS was developed to increase comparability in industry definitions between the United States, Mexico, and Canada. It provides industry classifications that group establishments into industries based on the activities in which they are primarily engaged. The NAICS was created for establishment designations and provides detail about the smallest operating establishment, while data collected from households differ in detail and nature from those obtained from establishment surveys. Because of potential disclosure issues, the Census industry code list, while defined in NAICS terms, cannot reflect the full detail for all categories.

Occupation Classification

Occupation data had been collected during decennial censuses on a continuous basis since 1910 until 2000, when the data began to be collected in the American Community Survey (ACS). The

Island Areas Census, which includes the United States Virgin Islands (USVI), Guam, American Samoa and the Commonwealth of the Northern Mariana Islands (CNMI), still collect these data. Occupation data also continue to be collected on other household surveys such as, the Current Population Survey (CPS) and the Survey of Income and Program Participation (SIPP).

Occupation describes the kind of work a person does on the job. These questions ask: "What was this person's main occupation?" and "Describe this person's most important activities or duties." Similar to the industry questions, these questions were asked of all people 15 years old and over who had worked in the past 5 years. For employed people, the data refer to the person's job during the previous week. For those who worked two or more jobs, the data refer to the job where the person worked the greatest number of hours. For unemployed people and people who are not currently employed but report having a job within the last five years, the data refer to their last job. These questions capture the occupational composition of the American labor force.

Occupation data are coded based on the detailed classification system developed for Census 2000 and modified in 2002, 2010, and lastly 2018. The 2018 system consists of 570 specific occupational categories, for employed people, including military, arranged into 23 major occupational groups. This classification is based on the 2018 *Standard Occupational Classification* (SOC), published by the Executive Office of the President, Office of Management and Budget.

Comparability

Comparability of occupation and industry data is affected by a number of factors, primarily changes to the systems used to classify the questionnaire responses. These changes are needed to identify the growth and decline in existing industries and occupations, and the desire of analysts, researchers, and other data users for more detail in the presentation of the data. The greatest cause of non-comparability is the movement of an industry description or an occupation title from one major category or sector to another. Changes in the nature of jobs, respondent terminology, and refinement of category composition make these movements necessary. Another major change to the Census industry and occupation code lists happened in 2002 when all census codes were modified from 3-digit codes to 4-digit codes.

Industry - The international policy committee that designed the NAICS set out to create a new classification system rather than simply revise the Standard Industrial Classification (SIC) used prior to 1997. The first NAICS was developed in 1997 as an improvement over the Standard Industrial Classification (SIC) system that had been previously updated from the 1930s through 1987. The NAICS expanded the SIC to include industries in Canada and Mexico with those in the United States, and changed the numbering scheme from a 4-digit to a 6-digit system. In spite of these changes, the structure of the 1997 NAICS is not drastically different from the structure of the SIC for most NAICS sectors. Therefore, crosswalks between the 1990 Census (which was based on the SIC) to the Census 2000 industry classification (which is based on the NAICS) through the two standards is fairly straightforward. The 2000-2002 ACS data used the same occupation classification systems used for the 2000 census, hence, the data are

comparable. In 2002, NAICS underwent another change and the Census industry codes were updated accordingly. Because of the possibility of new industries being added to the list of codes, the Census Bureau needed to have more flexibility in adding codes. Consequently, in 2002, census industry codes were expanded from three-digit codes to four-digit codes. This resulted in a minor change in the industry data that will cause it to not be comparable to previous years without modification. In addition, six new codes were added between 1997 and 2002 (4585, 5591, 5592, 6675, 6692, and 6695). In the next update, between 2002 and 2007, changes were focused on the Information Sector where one census code was added (6672) and two were deleted (6675, 6692).

The ACS followed the 2007 code list from 2008 through 2012, making the ACS 2008-2012 industry data comparable. NAICS was updated again in 2012. The changes were used to create the 2012 Census Industry Code List, which was first applied to the 2013 ACS and used until the 2017 ACS, making the ACS 2013-2017 industry data comparable. The revision included nine new codes (3095, 3365, 3875, 3895, 4195, 4265, 4795, 5275, and 5295), nine deletions (3090, 3360, 3870, 3890, 4190, 4260, 4790, 5270, and 5290) and 19 title changes. Then, between 2012 and 2017, NAICS updates resulted in 19 new Census industry codes (1691, 3291, 4971, 4972, 5381, 5391, 5593, 6991, 6992, 7071, 7181, 8191, 8192, 8561, 8562, 8563, 8564, and 8891) and 18 deleted ones (1680, 1690, 3190, 3290, 4970, 5380, 5390, 5590, 6990, 7070, 7180, 8190, 8560, 8880, and 8890). These changes were applied starting with the 2018 ACS, making 2018 industry data only partially comparable with previous years.

Occupation - The Census Bureau has maintained its own occupation code list since 1850. Beginning in 1980, this classification system started to be based on the Standard Occupational Classification (SOC) system, published by the Executive Office of the President, Office of Management and Budget (OMB). The SOC classifies paid work or work for profit into occupational categories based on the work performed. Every Census occupation code crosswalks to an SOC code. In 2000, the Federal interagency Standard Occupational Classification Revision Policy Committee (SOCRPC) decided to rearrange the entire structure of the SOC (Standard Occupational Classification) resulting in major changes.

Written responses to the occupation questions are coded using the Census occupational classification system developed for the 2000 Decennial Census (504 occupation codes), and modified in 2002. This same year, the Census occupation code list changed to a 4-digit structure, instead of a 3-digit one to allow for more flexibility to add more codes. In 2010, the SOC was modified again (540 occupation codes), where changes were concentrated in information technology, healthcare, printing, and human resources occupations.

The most recent modification occurred in 2018. Between 2010 and 2018, 125 Census occupation codes deleted and 155 new Census occupation codes were added. This resulted in a net gain of 30 Census occupation codes. The most significant changes to the code list occurred in the minor group of computer occupations and the major groups of healthcare practitioners and technical occupations and healthcare support occupations. At present, the Census occupation code list consists of 570 specific occupational categories for employed people, including four military codes, arranged into 23 major occupational groups.

Organization of the Indexes

Alphabetization

The titles listed in the indexes are arranged alphabetically following the word system used in telephone directories and encyclopedias. The order of the titles is based on the alphabetical order of one word at a time. This is in contrast to the alphabetic letter system used in dictionaries where the first and second words, if any, are treated as one word. Following are examples of alphabetization within the two systems:

Census Bureau Word System	Dictionary Letter System
Art dealer (ret)	Art dealer (ret.)
Art exhibits	Artesian wells (const)
Art institute	Art exhibits
Artesian wells (const)	Artichokes, bottled (mfg)
Artichokes, bottled (mfg)	Art institute

Cross Indexing, Prime Words, Key Words, and Compound Words vs. Multiword Titles

Many titles in the indexes contain two or more words. Multiword titles can appear on the screen in various word orders, e.g., "Canned vegetables" or "Vegetable cannery." In some cases, the multiword titles are listed in the index in all possible orders. However, some multiword titles are listed only once as part of a "run," i.e., a succession of listings beginning with a common word. Below are examples from one of the industry runs:

Advertising Aerial
Advertising Agency
Advertising Billboard
Advertising Company
Advertising Copy writers of

For industry, there are eight common words designated as "prime words" because they are used frequently. These prime words form the longest industry runs. Industry titles containing these prime words are usually listed only once under the prime word, but there are exceptions. For example, the title State Court will not be found under Court State; however, Auto Muffler will be found under Mufflers Auto. The prime words "United States," "State," and "City" are industry runs that simplify the coding of government agencies and government-run industries. The prime words are:

Auto	Rental	State
City	Repair	U S (United States)
Electric	Self Employed with occ	

For occupation, there are 13 frequently used words designated as "keywords." These keywords form the primary occupation runs. Occupation titles containing these keywords are listed only once under the keyword. For example, the title "auto mechanic" will not be found under "Auto," but only under "Mechanic." The keywords are:

Apprentice	Inspector	Supervisor
Assembler	Manager	Teacher
Assistant	Mechanic	Technician
Engineer	Repairer	
Helper	Sales	

In some cases, the respondent may provide the title as two words but that entry may appear in the index as a single word (compound word) or vice-versa (multiword title). Some examples would be Life Guard/Lifeguard, Head waitress/Headwaitress, and Baby Sitter/Babysitter. First, check the index for the entry as listed in the case. If not found, check it the other way.

Use of the Indexes in Clerical Coding

General Description

In all the sections of the *Alphabetical Index of Industries,* the first column shows each industry description (or title,) followed by the column providing the appropriate census industry code. The index has a separate section for "Self employed with occ". These lines provide occupation codes in the third column, which only apply to specific industries where respondents are self-employed.

The *Alphabetical Index of Occupations* provide the occupation description (or job title), industry restrictions (if applicable), and the Census occupation code, each in separate columns.

In the sections below, examples from the indexes are shown, as well as portions of the instructions provided to clerical coders when coding industry and occupation.

Industry Titles

Industry titles are listed in several ways:

1. *Typical (basic) industry entry*:

   Dry cleaning 9070

   For an industry response on the screen of "dry cleaning," assign the industry code "9070."

2. *Abbreviations following industry titles* **-** The following abbreviations are used with certain industry titles and are considered an essential part of the title:

(Const) - as abbreviation for construction, building, excavating, etc. (associated with industry code 0770)(Ext) - as abbreviation for extracting, mining, mine, well, quarry, etc. (associated with industry codes 0370 - 0490)

(Mfg) - as abbreviation for manufacturing, factory, mill, plant, etc. (associated with industry codes 1070 – 3990)

(Ret) - as abbreviation for retailing, retail store, retail shop, etc. (associated with industry codes 4670 - 5790)

(Whsl) - as abbreviation for wholesaling, wholesale company, wholesale store, etc. (associated with industry codes 4070 – 4590, except 4585)

(Whsl- brk) - as abbreviation for wholesale-broker (associated with industry code 4585)

For example:

Acetylene gas (mfg) 2290
Acetylene gas (whsl) 4380

In this example, assign code 2290 to such entries as "acetylene gas factory" and "acetylene gas plant." Assign code 4380 to such entries as "wholesalers acetylene gas company" and "acetylene gas wholesaling."

3. *"Any not listed" and "exc"* **–** These words appear in residual lines, usually the line following a list of specific industry titles.

The phrase "any not listed" covers either specified or unspecified kinds of industries not shown in the preceding entries. For example:

Garage equipment (whsl)…………...4070
Garage farm equipment 8870
Garage parking 9090
Garage\ any not listed 8770

In this example, assign code 8770 to an entry like "Auto service garage," which does not fit any of the preceding types of garages listed.

The abbreviation "exc" (except) covers all cases except the related

entries preceding or following it.

For example:
Mattress covers exc rubber (mfg) 1590
Mattress covers rubber (mfg) 2390

In this example, assign code 1590 for mattress cover manufacturing other than rubber.

4. *Not specified – "ns"* - Some industry titles in the Index end with the letters, "ns" which stand for "not specified." Assign these codes when the industry description on IND line is not specific. For example, the Index lists:

Aluminum chloride (mfg)……………………………………………………2290
Aluminum ware (ret)………………………………………………………4770
Aluminum\ ns (mfg)………………………………………………………2680

When the industry response on the EMP line, and the description on IND line are not specific, use the code for the residual line. In the following example, the kind of aluminum is not specified, therefore assigned industry code "2680"-

EMP- Able's Aluminum Plant
IND- Making aluminum

5. *"With"* and *"without"* - Occasionally, you will find a residual line containing the terms "with" or "without" as part of an industry title and activity description in the Index.

Homes and institutions with medical care…………………………..8270
Homes and institutions without medical care……………………8290

6. *Self-employed with occ, own account, etc.* **–** Some respondents in business for themselves return entries of "self-employed," "own business," "own practice," and the like without any description of the type of business. For many of these cases, the industry is determined from the occupation. The industry list includes a series of lines for "Self-employed, with occupation," which includes various occupations of self-employed individuals. In this list, the occupation code is shown as well as the industry code. The first code is the industry code and the second is the occupation code. For example:

Self employed with occ abstracter ....7270..........2160

Assign industry code 7270 and occupation code 2160 for a "self-employed abstracter." In this example, it is not necessary to refer to the occupation

index, because both the industry and occupation codes are provided in the industry index.

Occupation Titles

Occupation titles are listed in several ways:

1. *Occupation titles with no center line industry restrictions-*

   Ticket writer ………………………………………………………....................5940

   Assign code 5940 to "ticket writer," regardless of other entries.

2. *Occupation titles with activities or other descriptive words-* many occupation titles in the Index are followed by a specific description or activity, which will further describe a particular occupation. For example:

   Painter animated cartoons..........................2600
   Painter brush……………………………………………8810
   Painter hand……………………………………………8810
   Painter house or other buildings……………..6410
   Painter landscape……………………………………..2600

   Each activity following the title "Painter" describes a particular type of painter. Assign code 6410 when an entry says "painter" or "housepainter" for kind of work and the most important activity is "painting houses." An "animated cartoons" painter is coded 2600.

3. *Education level restrictions –* Some titles that are used by people in two or more different occupations are best classified by referring to the person's educational attainment. For example:

   Accounting work (exc accountant) less than associate degree 5120
   Accounting work associate degree or higher 0800

   To code the entry "Accounting work" you must also look at the education line to see what level of education this person has. Nevertheless, entries of accountant must always be coded as accountant and entries of accounting clerk must always be coded as accounting clerk.

4. *Occupation titles with industry and/or class of worker relationships:*

   a. Titles with one industry code with only one listing:

      Letter carrier ....6370……………….5550

Assign code 5550 to an entry of "letter carrier" only when the industry code is 6370. In addition, if industry is "blank" or "unknown," assign code 5550 for occupation and 6370 for industry. If the code for the industry entry is something other than 6370, then the coders REFER the occupation entry by entering code 9970[5].

b. Title with one industry code in the center, multiple listings:

Color tester…………………………………………………………….2270………………………1920
Color tester…………………………………………………………….2690………………………8740

Assign code 1920 to the occupation entry color tester only when the industry has been assigned the code 2270. Similarly, occupation code 8740 can be used only when industry is coded 2690. If any other industry code has been assigned, the occupation entry is referred.

c. Titles with a range of industry codes. For example:

Manager food production ....1070-1290 ……………...7700

Assign code 7700 to an entry of "manager food production" if the industry code is 1190 because code it falls within the range 1070-1290.

d. Titles with multiple lines with ranges:

Manager floor…………………………………………………………….1070-3990…………….7700
Manager floor …………………………………………………………….4670-5790…………….4700
Manager floor …………………………………………………………….8660-8690…………….4010

Assign occupation code 7700 only if the industry code falls in the range of 1070-3990. If the industry code is 1170 or 2570, you could assign code 7700 to the "floor manager" because these codes fall within the range of 1070-3990. If the industry code does not fall within this range of industry codes in the middle column of this occupation entry, you cannot use code 7700 for occupation. Look at the other two "floor manager" lines to check if the industry falls between the other ranges. If an OCC line has a range and industry is not in any of the ranges, case is then referred for the occupation portion of the case.

e. Titles in combination with multiple industry codes, single listing:

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[5] When a production coder cannot assign a valid code to an industry description or an occupation title, these cases are referred to a more specialized coder using code 9950. These coders are known as referralists.

Jewel setter .... 3390, 3970, 3980, 4290, 5190, 8891........8750

Assign code 8750 to an entry of "jewel setter" only if the industry code is 3390, 3970, 3980, 4290, 5190, or 8891.

f. Titles with an industry description:

Engineer zoning .... City Planning Board 9390……………..1360

Assign code 1360 to an entry of "zoning engineer" only if the industry entry is "City planning board," which would be coded 9390.

g. Titles with a residual relationship:

Mail carrier ....\ Any not listed 5510

Assign code 5510 to an entry of "mail carrier" with the "any not listed restriction" when none of the other listed industries applies or when the industry question was not answered.

Examples of other entries designating residual industry and/or class of worker relationships are:

"Mfg. not listed," (Manufacturing, not listed)-
Production…………………………Mfg. not listed……………….……………8990

"Exc…," (except other listed entries)-
Mechanic propeller……… Exc. 3580, 3590, 6070, 9590................7640

"Mfg exc…" (Manufacturing, except other listed entries)-
Assistant research\ ns…………. Mfg. exc. 1070-1370, 2190…………1555

h. Titles with class of worker and industry relationships:

Digger ....GOV or PR 0170, 0290…………………………6050
Digger……………………………OBNI 0170……………………………………………..0205

Assign code 6050 to an entry of "digger" only when the class of worker entry is either "government" or "private" with an industry code is either 0170 or 0290. Both conditions must be met. If "digger" has a class of worker entry of "own business not incorporated (OBNI)" with an industry code of 0170, then code it to 0205. Class of worker abbreviations are identified under class of worker below.

    i.   Titles with "n s" and with industry restrictions:

        Laborer \ ns 0170, 0180, 0290 6050
        Laborer \ ns 0190 6120
        Laborer \ ns 0270 6130
        Laborer \ ns 0370-0490 6950
        Laborer\ ns................... 0770.. 6260
        Laborer\ ns.................. 5090, 8770, 8780......................7610

Assign code 6120 to an entry of "laborer" when a respondent has not specified (ns) the most important activities of the job, and the industry code is "0190".

Assign code 6950 to an entry of "laborer" when a respondent has not specified (ns) the most important activities of the job, and the industry code is "0380".

Coding Industry from Occupation Responses

There is a strong relationship between some occupations and industries. In these cases, the occupation write-in can help a coder derive a missing industry response or revise an assigned industry code. If industry responses in EMP (employer name) and IND (Industry type) are blank, or have an entry like "NA," "no answer", "unknown," "refused," or "classified," use the suggested code in parentheses in the Index to code the industry based on the occupation. For example:

1. *Titles with industry code in parentheses***:**

    Parking lot attendant ....(9090) 9350

    If the industry is not reported and the occupation is "parking lot attendant," assign the industry code 9090. The parentheses indicate that the industry may be derived from the occupation when the industry was not supplied by the respondent.

    When the industry response is not blank, the industry restriction is in parentheses, and the coder has assigned a code other than the suggested code in parentheses, this industry code is not to be changed.

2. *Titles with industry code preceded by a number or pound sign (#):*

    Foster parent ....#8290 4600

    Assign occupation code 4600 to a questionnaire entry of "foster parent" regardless of the industry code, which must be changed to 8290 if the

industry is not already coded to that category. The number sign indicates that the occupation "foster parent" can occur only in industry 8290; no other combination is possible.

Summary of Industry Restrictions in Occupation Titles

Format	Meaning
1070	When this is the industry code, assign this occupation code
(1070)	This industry code is *suggested* for this occupation code
#1070	This industry code is mandatory for this occupation code
1070, 1080	If either of these are the industry code, assign this occupation code
1070-1390	If industry code is in this range, assign this occupation code
exc 1070	If this is not the industry code, assign this occupation code
\Any not listed	Check the other index lines; if none apply, assign this occupation code

Class of Worker

In addition to asking for industry and occupation, most Census Bureau surveys ask a "class of worker" question, which identifies whether the respondent is working for an employer or self- employed, and whether the person works in the private sector, government, or active duty military. Assigning class of worker categories is, in most cases, independent of industry and occupation.

The Census Bureau currently uses nine categories in the ACS for class of worker. When this question is asked in a survey, the coding specialist should make sure that the question was answered and that it is consistent with the other answers about the respondent's job.

The class of worker entry can aid in coding industry and occupation. The explanations of the class of worker abbreviations used in the occupation section of the Index are as follows:

Abbreviation	Class of Worker
PR	Working for a private company, business, or individual, for wages, salary, or commission
PR NON	Working for a private not-for-profit, tax exempt, or charitable organization
GOV, FGOV, SGOC, LGOV	Working for Federal (including foreign, international and tribal), state, or local government

OWN, OBI[1],OB[2], OBNI[3]	Working in own business, professional practice, or farm (incorporated and not incorporated)
WP	Working without pay in a family business or farm
M or AD	For active duty military cases, an M or an AD will appear in the employer name line of the I&O coding screen

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[1]OBI means "own business incorporated."
[2] Own Business
[3]OBNI means "own business not incorporated."