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SCHOOL ATTENDANCE IN 1920

AN ANALYSIS OF SCHOOL ATTENDANCE IN THE UNITED STATES AND IN THE SEVERAL STATES, WITH A DISCUSSION OF THE FACTORS INVOLVED

BY

FRANK ALEXANDER ROSS

CENSUS MONOGRAPHS

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FOREWORD.

Next in importance to civil and religious liberty as foundation stones in the structure of American democracy has always been the ideal of universal education. In order that information might be available as to the extent to which this ideal has been realized, statistics concerning illiteracy and education have been gathered a teach decennial census enumeration since 1840. Obviously there are too many important demographic facts to be ascertained by means of the census of population to make possible the inclusion of anything but the simplest of inquiries in the schedules. As a consequence, the subject of education has been limited to three questions, namely, school attendance, ability to read, and ability to write. No one of these nor even all of them taken together can afford the basis for more than a rough estimate of the extent to which the educational facilities of the country are being effectively utilized.

The figures of school attendance, however, even though they may mean anything from a single day to a full school year, have been considered worthy of careful study and analysis because they were the only data available for the entire country on anything like a comparable basis. This monograph is the result of a thoroughgoing effort to find out what conclusions or implications can be safely drawn from these census data.

Classifications by age, sex, and race, as well as by geographic divisions, have revealed, among other things, very interesting side lights upon the effectiveness of compulsory school-attendance laws, labor laws, and as to the influence of industrial and social environment. Conclusions along these lines must, of course, be tentative, and need to be checked against other sources of information, but, in general, it may be said that measurable progress has been made in recent decades in spite of the increasing demand for child labor, the rapidly expanding industries of the country, and in the face of an augmented immigration from lands where educational ideals and opportunities are far below American standards.

CARROLL W. DOTEN.

INTRODUCTION.

With the developing complexity of the social, political, and economic life of the United States, many problems have arisen which demand careful study. As a basis for such study the masses of data gathered, compiled, and published by the Bureau of the Census are excellent.

Much of this large body of information is little used, owing to the lack of knowledge of what data are available and how they may be utilized. This is particularly true of data on education. Much important research can be pursued, using the data for the past several decades, which will throw light on the development and incidence of education in the Nation as a whole and in its subdivisions. As a means of educational inventory the material is excellent. And, as is true with other social movements, check-up of the educational system is essential if development is to come in the wisest direction, and if the *national* problem is to be seen. Yet this large compilation of information is left untouched, decade after decade, save for the most general and superficial scanning. The reasons are not far to seek. They lie in the complexity of the material, in distrust of its accuracy, and in unfamiliarity with the technique for handling such information.

The purpose of the chapters which follow is not to discover ultimate truths or general laws. The aim is rather, first, to bring before educators and those concerned with research in education the material, indexed and ready for use; second, to disperse the distrust which surrounds the data; third, to arrive at some of the primary factors involved in the problem; and fourth, to exemplify the methods which may be applied to the data in further, more careful and more intensive analysis—in true research. Incident to these aims and to the analysis as pursued, certain generalizations have been made—might almost be said to have made themselves. Many of these, perhaps, will seem mere platitudes to those who have had opportunity to view education in its most general aspects. Some will seem counter to experience. The conclusions should be considered as by-product rather than prime object, and as substantiation or challenge, as the case may be. They constitute but a small part of the large body of generalizations that could be extracted from the rich "pay dirt" of the census material.

A pioneer in the field of practical self-government, this country early assumed as a basic axiom of political thought that universal education was essential to enlightened popular control. In early colonial days acts were passed by the legislatures of Massachusetts and Connecticut requiring parents or other custodians of children to send to school the boys and girls under their guardianship, and imposing penalties for noncompliance with the act. The "little red schoolhouse" might well have been incorporated on the seal of more than one of the original States, and is as widely known an emblem of New England as is the proverbial Massachusetts cod or the Connecticut nutmeg.

This early tradition in favor of formal instruction of the young has been preserved throughout the history of the Nation, though not without strenuous effort. In the tide of migrants to these shores elements early appeared that did not realize the importance to the Nation of thorough schooling. With the successive waves of aliens have come increasing numbers from lands where the populace has had little opportunity to learn. These individuals have seen in the "prolongation of infancy" only economic waste and personal financial loss. It has required strenuous effort on the part of those with keener social vision to maintain even a modicum of universal instruction.

In order to discover the status of education throughout the Nation, the Federal Government long ago instituted inquiries through its data-gathering agency, the census, and for many decades [1] the Bureau of the Census has been gathering statistics of education. During the earlier part of this period inexperience on the part of those planning the collection of the material as well as the inefficiency of the enumerators, caused variations in the fundamental plan and errors which rendered the data incomparable, census with census. Since the organization of the permanent Census Bureau in 1902, however, there has been a high degree of uniformity in the enumerations.

In the Fourteenth Census, as in the two which preceded it, three questions under the general heading "Education" were asked of each individual enumerated. In 1920 these were question 16, "Attended school any time since September 1, 1919;" question 17, "Whether able to read;" and question 18, "Whether able to write." The tabulated results of these questions furnish the subject matter of two distinct fields of investigation: School

[1] The first census to contain questions on this subject was the Sixth, taken in 1840.

attendance and illiteracy. The former indexes the degree to which society is training the younger generation for citizenship—the latter shows the need for such training. Though the two problems are closely interwoven the present treatise is confined solely to the first and deals with answers to question 16. Further, the discussion centers about the situation in 1920, with a brief comparison with that in 1910.

Owing to the unreliability of the educational statistics gathered by the Census Bureau in earlier years, many of those interested in the development of schools and school attendance continue to disregard the tabulated material of recent enumerations, in spite of the fact that a high degree of reliability has been achieved. This is regrettable, for the data constitute the only source of homogeneous information for all parts of the country. Such information as is furnished by city and State educational authorities is excellent material for an immediate analysis of school attendance in that locality. It is usually valueless for comparison with other localities.

The 1920 data on school attendance consist of the numbers of individuals who are reported to the census enumerators as having attended school during the fall of 1919. Classification was made by age, into single years from 5 to 20 years and into the age groups [2] 5 and 6, 7 to 13, 14 and 15, 16 and 17, 18 to 20, 5 to 20, 7 to 20, under 7 years of age, and 21 years and over, for the country as a whole, for the several geographic divisions, for the States, and for cities of 250,000 population and over. Cross classifications by population classes into native white of native parentage, native white of foreign parentage, native white of mixed parentage, foreign-born white, and negro, for the same geographic units, are also available. Data by counties have been published but are divided only by age groups, with no sex or ethnic subdivision. For cities of 10,000 to 25,000 a similar mass of data is found. Elaborate classification has been made for cities of 25,000 to 250,000 inhabitants. Sex division has been furnished in certain of these subclasses but not for all the geographic areas. Limited data are to be found in the published reports for the classes urban and rural, but for the serious student of these areas, data in the form of absolute numbers are available among the records of the Bureau of the Census.

[2] Children under 5 years of age and persons over 21 years of age were enumerated as attending school. These are accounted for only in such classes as "Total persons attending school" and "Under 7 years of age," etc.; nowhere is there a class "Under 5 years of age." Separate classification seems unwarranted owing to small numbers and the slight educational significance.

The original absolute numbers have been converted into "rates" by dividing the number of school attendants in a given class or age group by the numbers of the population in that class and multiplying the quotient by 100. The result is the per cent attendance of the population, and the term "rate" as used throughout this volume should be so interpreted. It is a positive figure indexing attendance. The rates are carried out to tenths of 1 per cent, and rates which differ by less than one-tenth of 1 per cent are treated as identical. Nowhere are rates utilized where the base is less than 100.

Factorization is a fundamental process in scientific study and many factors enter into any social phenomenon. However, in any social situation certain dominant determinants appear. These are of such potency that they minimize the effect of the large number of other elements. Preliminary study of any social problem should be confined to an analysis of the powerful factors with notation of many of those less effective.

In school attendance the primary forces are legislation (including its enforcement), ethnic composition, and age. The effective social tradition of the controlling group is crystallized in the laws which are enacted and enforced. The statutes might well be said to represent the ideals of those in power. Ethnic composition to some degree determines the nature of these ideals but even more their prevalence, and affords the best available index of the homogeneity of the group. Formal education is primarily a means of preparing the youth of the land for efficient economic and political citizenship. The duration of this period of training measured in years indicates both the extent of preparation and the date of effective participation in social affairs.

Second in importance are sex, density, and economic situation. The effective preparation of girls for their life work has always been different from that of boys and the responses of the two sexes to the opportunities offered by the schools are quite distinct. In a measure density indexes the feasibility of education. In the thickly settled cities transportation [3] is much easier than in the sparsely inhabited open country. Further, the manner of life and the traditions of a population are largely affected by its concentration. Economic opportunity and economic necessity greatly modify the response to school facilities and to legislation. In the following pages these factors are utilized in an attempt at

[3] Change in density, particularly rapid growth, frequently limits opportunity through overcrowding.

preliminary exploration of the forces controlling school attendance. The reader need not expect elaborate conclusions or exact mathematical laws. The discovery of these must be left to others. It is to be hoped, however, that such work will be stimulated by the results of the reconnaissance here attempted.

In the first chapter school attendance in the United States is first treated for the entire school-age period (5 to 20 years) and for individual years. Primary division is made into the population classes and by sex. This is followed by a treatment of the general attendance rates for the several States. As a result of comparison of the school-attendance rates by single years the States are empirically divided into four distinct types.

In Chapter II the importance of the legislation of the specific locality is shown. The kind of legislation in force in 1919 in the several States is discussed and the empirical classification of the States into types is substantiated by analysis of these laws. Enforcement is treated briefly by scrutinizing the general rates for specific cities and the ethnic make-up of these centers.

The ethnic factor is analyzed by separate study of the attendance of the several population elements. Chapters III, IV, V, and VII discuss, respectively, the attendance among negroes, foreign-born white, native white of native parentage, and native white of foreign or mixed parentage. In Chapter VI attendance of the native white of native parentage in cities is analyzed, particular stress being laid on enforcement. Chapter VIII contains comparisons of attendance in 1910 and in 1920, with illustrations of careful analysis, using several States and one city as examples. In the "General Summary" the reader will find a brief treatment of the salient features of the several chapters, and suggestions for further research.

Appendix A contains a discussion of the manner in which the trained statistician may arrive at measurements of the importance of various factors and derive scientific laws governing school attendance. The reader is warned of its highly technical nature.

Carefully selected tables, prepared by the Bureau of the Census, are to be found in Appendix B, which concludes the volume. They constitute a valuable source of research data, presented in compact, usable form. Absolute numbers have been omitted and attendance rates alone inserted in many of the tables for greater facility of reference and comparison.

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Before beginning analysis of the problem a brief discussion of the data is necessary. Both in 1910 and in 1920 the question on school attendance read "Attended school any time since September 1." In the former year its column was No. 25 and it was preceded by "Whether able to write" and followed by "Home owned or rented." In the latter year it was No. 16, following "If naturalized, year of naturalization" and preceding "Whether able to read." This difference of position among the questions probably did not modify the results.[4] The instructions to enumerators on this question were practically verbatim for the two censuses. In each, "school" was interpreted "school, college, or any educational institution." Secular and religious education are not distinguished, but it is improbable that enumerators counted Sunday school attendance.[5] This is the only so-called "school" that is barred. No distinction is attempted between various types of education. Thus one hour a week at evening school counts as heavily as full-time work in college. Also, attendance at a single session is given equal weight with regular enrollment. Children who are trained by parents or tutors in the home, and who may be receiving thorough "schooling" without entering a school building, are not included.

There is no evidence that these logical defects cause material errors in the rates. The tendency is to exaggerate the effective attendance to a slight degree. The picture presented tends to be somewhat optimistic, though the exaggeration due to casual attendance is largely offset by home instruction. There should, however, be little regional difference in the degree of error.

It should be noted that while attendance at any time from September 1, 1909, to April 15, 1910, was counted in the Thirteenth Census, the period was shortened in the Fourteenth Census from September 1 to December 31, 1919. This unquestionably tends somewhat to minimize the 1920 attendance rates and comparisons of 1910 with 1920 rates would underestimate the actual increases and overestimate decreases in attendance. That the shortened period materially affects the comparability of various local rates for the census of 1920 is doubtful. There is no evidence that boys

[4] The position of "Able to speak English," following "Able to read" and "Able to write" on the schedule in one census (1900) resulted in statistics making it appear that a large proportion of negroes in the South could not speak English, because those enumerating the negroes, having written "No" under "Able to read" and No" under "Able to write," made the erroneous entry of "No" under "Able to speak English."

[5] It is interesting to note that in 1850, the second census in which a school-attendance question was included, the instructions read: "The marshal should ask what member of this family has been at school." "Sunday schools are not to be included." In the instructions in 1870 a similar caution was interpolated.

and girls who attended after January 1, 1920, were kept from attending before that date in differing proportions in the several States. A possible exception may be found in the South where cotton culture utilizes the labor of children until late in the fall. It is conceivable that attendance rates for this region are somewhat lowered. That this is improbable is evidenced by the great improvement during the decade 1910–1920 in rates for the States of the Cotton Belt.

It is well known among demographers that statistics of age usually contain certain types of errors. There is a tendency to express age in round numbers. Thus the populations at the years 20, 25, 30, etc., are exaggerated and at intervening years are minimized. This tendency is noticeable though less marked at 10, 15, and 20 than at later years. Also where child labor laws are in force, many children are reported above the minimum age for labor permits who actually are below. While these misstatements affect actual age distributions, their influence on school-attendance rates is small. It is true that nonattendance frequently is overaccentuated at 14 years—if this is the earliest age at which labor permits are granted—and that consequently attendance rates are unnaturally high at 13 years. With the age classification at present in use rates for the age group 7 to 13 years are probably higher in most classifications than they should be and those for 14 and 15 years are lower. In any locality or population class that is greatly influenced by the pull of industry, this misstatement produces material error. Unquestionably rates for the foreign born throughout the entire United States and comparisons between industrial and nonindustrial cities are affected. This age, 14 years, is not universally the minimum for permitted absence. In some States this begins as early as 7 years, in others not before 15 years. These variations may have decided effect on comparability of rates since they would modify the point at which errors appear. Comparison of rates by single years indicates that these errors are practically negligible for the larger areas.

A more serious difficulty is the abnormal age distribution for the foreign born. This is discussed at length in the chapter on "Foreign-born white school attendance" (see pp. 59 ff). For the sake of unity it is repeated here. The native born—and this applies to negroes as well as to whites—are most numerous[6] in the earlier years and become fewer as age increases. The reverse is true of

[6] It is possible that this is not true for all localities. Where economic opportunity has attracted large numbers of the native born there may be considerable distortion of normal age distribution. It is doubtful if this has any material effect upon school-attendance rates, since this migration is small before 18 years of age.

the foreign born. Because the foreign born can be increased only by immigration and as they do not come to this country in large numbers at early years, they are few in the early years and numerous in the later years of school age. Since the high rates are found from 7 to 13 years and regularly lower rates at 14 and 15 years, 16 and 17 years, and 18 to 20 years, comparison of rates for foreign born and for native born should be made by very small age classes, preferably by single years. The migration habits of various nationalities are different, and as there is a tendency toward segregation among the nationals of the same country, when foreign-born rates are compared in different localities, the age distributions should be carefully watched.

Criticism is often raised that the census figures on school attendance do not index the real situation since they depend upon the word of interested persons. It is possible that this is influential in magnifying attendance in any given locality at a given time. But unless the critic can demonstrate that the population of one section of the land contains more numerous and more thorough liars than another region, or that the population of some region is more prone to falsehood at one time than at another, he does not challenge the real usableness of the information.

With this brief discussion of attendance statistics the preliminaries are ended. Though inaccuracies can be found in the data, they are not large. While the rates do not describe the day by day attendance proportions, they do index with great uniformity the degree in which the population responds to schools. No other body of data exists that can be used to compare region with region, State with State, county with county, city with city, ethnic class with ethnic class, decade with decade. It is true that in some States educational authorities have gathered excellent statistical information, and that this permits adequate comparison of locality with locality within the State. Indeed, in some instances, two or more States have gathered statistics of comparable nature. But it will be many decades before this country will have for educational statistics a nation-wide unified system for gathering adequate, reliable, and comparable data administered by the localities themselves. It has taken years of tireless effort to effect such a system in the field of mortality statistics, yet there the task has been relatively easy. It is to be hoped that this volume will encourage educators to utilize the figures now available in their field, studying their defects, suggesting means of improvement, and utilizing the vast amount of worth-while information they contain.