

EDUCATIONAL TRENDS FROM CENSUS DATA*

JOHN K. FOLGER AND CHARLES B. NAM
Florida State University and U.S. Bureau of the Census

RESUMEN

Entre 1910 y 1960 hubo un aumento de casi 24 millones de personas de 5 a 19 años de edad matriculadas en escuelas. Se calcula que casi la mitad (45 por ciento) de este aumento se ha debido a tasas más elevadas de asistencia escolar, en tanto que el resto se debe al crecimiento de la población. En la actualidad, casi todos de los niños en edad correspondiente a la escuela primaria, y cuya salud lo permite, están matriculados en escuelas. El retraso con respecto al grado ha disminuído en forma substancial. Aún cuando las tasas de asistencia en los niveles inferiores a la escuela superior son mayores en el caso de mujeres que en el de hombres, más elevadas en el caso de blancos que en el caso de negros, y mayores en el caso de poblaciones urbanas que en el caso de poblaciones rurales, la magnitud de estas diferencias ha tendido a disminuir. La mayor parte de la reducción de estas diferencias se refleja en la extensión de la educación pública gratuita a todos los segmentos de la población, tanto en el caso de escuelas primarias como secundarias. En el caso de la asistencia a escuelas superiores sin embargo, las diferencias por razón de raza, sexo y residencia son todavía muy grandes y han disminuído muy poco y en algunos casos parecen haber aumentado.

La tendencia en el nivel educacional de los adultos despues de 1910 a estado hacia arriba con las mayoría de los indicadores sugiriendo una accelevación durante las decadas mas reciente. Los blancos y los que no lo son han hecho progresos importantes, pero la disparidad en años de escolaridad esta grande entre las razas.

I. INTRODUCTION

Statistics on education were collected in a decennial census as far back as 1840. The U.S. Office of Education, the primary federal agency for the collection and dissemination of education data, was not organized until 1867, and its statistical series date back only to 1870. There is, in fact, very little overlap in the statistical information which has come from the two sources since 1870. The Office of Education data have been assembled from reports of state and local school systems and institutions of higher learning, and they relate to counts of children and youth in school, and to information on graduates, instructional staff, curricula, school district organization, educational receipts and expenditures, property, and other aspects of the school systems.

An inquiry on school enrollment has been part of each U.S. decennial census of population from 1840 to 1960, and a question on illiteracy was included in the census of 1840 to 1930, after which it was replaced by one on years of school com-

pleted. The unique contributions of the census data have been the description of characteristics of those enrolled, such as age, race, and residence, and an accounting of the educational status of the general population, including those not in school as well as those attending.

From census data alone, one may trace educational trends in the United States for a period of 120 years. The analysis in the present paper is restricted to census data for the period from 1910 to 1960, primarily because the desired data are either not available from earlier censuses, are not comparable with later data, or are of such questionable quality as to limit their usefulness.

The matters of comparability and quality are also of importance for the time period discussed and have particular relevance to an analysis of trends. The following analysis, therefore, incorporates some evaluation of the data and indicates the effect of inaccuracies in the statistics on the interpretation of trends.

II. TRENDS IN SCHOOL ENROLLMENT

The census is providing increasingly detailed information for the analysis of

* This article is based on research performed for a forthcoming monograph, *Education of the American Population*.

enrollment growth. Part of this increase in information is related to the explosive growth of enrollment since 1950 and the consequent heightened interest in this kind of information.

Enrollment of persons 5 to 19 years old grew 23.6 million between 1910 and 1960—from about 17.5 million to 41.1 million persons (see Table 1). Considerably more than half of this growth, or 13 out of 23.6 million, occurred between 1950 and 1960. About two-thirds of the growth in enrollment in the last 10 years has been due to growth in the population of school age, while for the period from 1910 to 1950, a little less than half the enrollment growth was due to population increase.

It is difficult to estimate how much of the total increase in enrollment reported in the census may be due to improved coverage and reduced errors of reporting, collecting, and tabulating the census. There are two sources of data for the assessment of census enrollment statistics; one is the Post Enumeration Surveys of 1950 and 1960 and the other is comparison of census data with other enrollment reports, principally those of the Office of Education.

By comparison with the Office of Education, census figures reveal more enrollment growth in the 1910-60 period. During this period, the census reported a 23.6

million growth in enrollment, the Office of Education a 19.5 million increase, or about four million less. The census appears to be closer to the "true" increase, since the Office of Education figures contained many duplicates for the earlier period, and elimination of duplicates in recent years would have the effect of understating the "true" growth.

Comparisons between census and Office of Education data on "grade in which enrolled" indicate that there was substantial net over-reporting of grade in which enrolled in the census of 1940. If the Office of Education is taken as "standard," net census over-reporting of grade enrolled in 1940 was about two-thirds of a grade. The over-reporting was reduced in 1950 to .2 of a grade, probably largely due to improved census question wording, and estimates for 1960 indicate a further reduction to less than .1 of a grade.

A fairly similar estimate of the magnitude of misreporting grade in which enrolled is provided by the 1960 Content Evaluation Study, which indicated 2.0 per cent gross over-reporting of grade enrolled and 0.6 per cent under-reporting for a net error of 1.4 per cent.

By all these comparisons, it appears that the quality of census data on enrollment in 1960 is good. It also appears that the accuracy of reporting grade in which

Table 1.—COMPONENTS OF GROWTH IN SCHOOL ENROLLMENT FROM 1910 TO 1960, FOR THE POPULATION 5 TO 19 YEARS OLD, BY AGE, FOR THE UNITED STATES
(Numbers in thousands)

Age	Total gain in enrollment 1910 to 1960	Percent of growth		
		Total	Due to population growth	Due to increased enrollment rates
Total.....	23,659	100	55	45
5 and 6 years.....	3,566	100	36	64
7 to 13 years.....	13,178	100	78	22
14 to 15 years.....	2,547	100	58	42
16 and 17 years....	3,049	100	29	71
18 and 19 years....	1,320	100	16	84

enrolled has improved considerably in the last two decades. The effect of this improved accuracy in reporting grade is to understate the magnitude of the very substantial decline in grade retardation which has taken place.

III. TRENDS IN GRADE RETARDATION

The history of census enrollment statistics parallels that of many other population characteristics in that more information and tabulations are available for recent years. In 1910, information was provided on enrollment by single years of age, by sex, and by ethnic background. Enrollment by rural-urban residence was added in 1920. In 1940, a big step forward came with enrollment by grade or level cross-tabulated by age. This made possible the age-grade table, which adds to enrollment analysis in much the same way that the introduction of statistics on birth parity adds to fertility analysis.

Unfortunately, the census data on grade in which enrolled have been a by-product of the data on educational attainment

(that is, the reply to the enrollment question has been combined with the reply to the question on highest grade attended). Improvement in the question wording in 1950 and 1960 makes the 1940 figures noncomparable for the analysis of grade retardation and the study of the age-grade table. It is now possible, however, to compare grade retardation and acceleration between 1950 and 1960 and to identify the rather substantial decline that has occurred in grade retardation.¹

Between 1950 and 1960, grade retardation in the pre-college years was reduced by nearly half (see Table 2). In 1950, about 16 per cent of 10-year-olds was retarded one or more grades; by 1960, only 8 per cent was retarded. In 1950, over a fourth (26 per cent) of 15-year-olds was retarded; by 1960, only 15 per cent of this age group was retarded. By con-

¹ We define two years as "normal" for each grade. Thus, both six- and seven-year-olds in the first grade at the time of the census are considered normal. Seven- and eight-year-olds in the second grade are normal, and similarly for other grades.

Table 2.—PERCENT OF ENROLLED PERSONS 8 TO 17 YEARS OLD RETARDED IN SCHOOL BY AGE, FOR THE UNITED STATES, 1950 AND 1960

Age	1960			1950		
	Retarded ^(a)			Retarded ^(a)		
	Total	One year	More than one year	Total	One year	More than one year
8 years.....	4.0	4.0	...	6.6	6.6	...
9 years.....	6.5	5.7	0.8	11.2	9.1	2.1
10 years.....	8.2	6.7	1.5	15.7	11.5	4.2
11 years.....	9.2	7.1	2.1	18.1	12.0	6.1
12 years.....	10.5	7.6	2.9	21.5	12.7	8.8
13 years.....	11.6	8.1	3.5	23.6	13.2	10.4
14 years.....	13.9	9.2	4.7	25.0	13.5	11.5
15 years.....	15.3	9.3	6.0	26.3	13.6	12.7
16 years.....	15.2	8.8	6.4	24.7	11.9	12.8
17 years.....	14.9	8.2	6.7	21.9	11.1	10.8

(a) School retardation is defined in terms of enrollment in school in a grade below the modal grades for a given age.

trast, the per cent of accelerated students in 1960 was about the same as that in 1950; in both years it varied from 4 to 6 per cent.

In 1950, retardation of the rural population approached 40 per cent at age 15; by 1960, it had been reduced to half that percentage, i.e. to less than 20 per cent. Yet retardation in school is still about twice as prevalent in rural farm areas as in urban areas. The difference between rural and urban schools in amount of grade retardation is declining as both approach the norm of regular progression through the grades; the concept of "social promotion" is approaching social reality.

It seems unlikely that grade retardation can be reduced much below 5 to 10 per cent in the American school system; we are already near this point in the urban areas. Future declines in grade retardation will largely be confined to youths in rural areas and to nonwhites, for whom retardation is still substantial.

IV THE ANALYSIS OF ENROLLMENT DIFFERENTIALS

Enrollment rates vary markedly with age. In 1960, about 64 per cent of 5- and 6-year-olds were enrolled in school, about 98 per cent of 7- to 13-year-olds, 98 per cent of 14- and 15-year-olds, 81 per cent of those 16 to 17, and only 42 per cent of those aged 18 to 19. Since 1910, enrollment rates at school ages 7 to 15 have risen less than 20 per cent, while those for the younger (5- and 6-year-olds) and older (16- to 19-year-olds) ages have approximately doubled. For the older ages, most of the enrollment growth since 1910 reflects increases in enrollment rates, while for the 7- to 15-year-olds most of the change reflects population growth.

For the younger ages, the sex differential in enrollment rates is very small but consistently favors the females at ages up to 14 or 15. This has been true since 1910. At ages above 17, there is a much higher percentage of males than of females enrolled in school. For age 19, enrollment rates for males in 1960 were about 30

per cent higher than for females. For ages 20 to 24, rates for males were more than double those for females.

The sex differential in enrollment rates at ages above 17 has been increasing since 1940. One might conclude from these figures that college enrollment of men has been going up more rapidly than that of women; yet, actually, the percentage of men among those in college in 1960 was about the same as in 1910 (66 per cent), and the per cent of undergraduates who are men has actually declined slightly.² The main explanation of the more rapid increase of enrollment rates for males at the older ages is in the decline in grade retardation and the consequent decline in the proportion of students over 17 enrolled in high school where the sex distribution is approximately equal. In 1910, it can be estimated that about 72 per cent of the enrollment of persons over 18 was below college level, while in 1960 comparable census figures for the population 18 to 24 years old indicate that only 36 per cent of those over 18 who were enrolled was below the college level.

At the college level, nonwhite students have a pattern of enrollment quite different from the white students. Whereas about 65 per cent of white college students are male, only about 53 per cent of nonwhite college students are male (Table 3). The higher ratio of nonwhite female to male college students undoubtedly reflects the kind of occupational opportunities open to nonwhite with advanced education.

Census data do not reveal a uniform superiority of the city over the rural areas in enrollment rates. At the younger ages (5 to 15), urban enrollment rates have been higher than rural since 1920, when data were first available in comparable form, and the differentials between urban and rural rates have declined markedly since 1940. At the high school and early

² U.S. Office of Education, *Biennial Survey of Education*, 1956-58, chap. iv, sec. 1, Table 2, and *Total Enrollment*, 1959-60 (OE-54205), Table 1.

college ages (16 to 19), rural enrollment rates were actually higher in 1930; urban were higher in 1940 and the differential in favor of the urban areas widened until 1950, only to decrease in the last decade. Part of the change between 1940 and 1950 may have been a function of the change in the residence definition of college students.

What these figures reveal is the sharper break between school and work in the urban environment. Presumably, in the city, youths stay in school full time until they take a full-time job, and then they leave school. There is more grade retardation in rural areas, and high school graduation comes later, on the average, in rural areas. Rural youths tend to stay in school to high school graduation, even though they are more often over-age for the grade in which they are enrolled.

Even if the entire differential in enrollment rates of youths 7 to 19 years old were eliminated by raising the rural rates to the urban level, total enrollment in the United States would only be increased about 300,000 or less than eight-tenths of one per cent.

The census records steady progress in reducing enrollment differentials between whites and nonwhites at ages 5-19 during the past half-century. Reductions in the differential have been most pronounced at the younger ages. At age 5 and 6, a

differential that amounted to 14 percentage points in 1910 has been reduced to only 3 percentage points; at ages 7 to 13, a differential of over 20 percentage points has been reduced to only 2 percentage points. At the older ages, the differential has not been reduced very much. At ages above 19 the differential (for college attendance) may be widening.

Another way of expressing the gap is to indicate that if the differential were entirely eliminated, nonwhite enrollment would be increased by only about 200,000. This is only four per cent of nonwhite enrollment and less than one-half of one per cent of the total enrollment in the nation.

Elimination of sex, color, and residence enrollment rate differentials would have only a small effect on the total enrollment in the United States—adding less than one million students to a total enrollment of over 40 million in the 5 to 19 age range. The development of kindergartens as a universal feature of the American educational scene might add as many as 800,000 more children to the rolls yearly. The other place where enrollment rates can rise is at the college level. Will we have junior colleges available throughout the country? The social definition of who should attend college is still in transition, as are the enrollment rates for the older ages. With these exceptions, the future of

Table 3.—COLLEGE ENROLLMENT BY COLOR, SEX, AND YEAR IN WHICH ENROLLED FOR THE UNITED STATES, 1960
(Numbers in thousands)

Year of college in which enrolled	White			Nonwhite		
	Total	Male	Female	Total	Male	Female
Total.....	2,743	1,777	966	192	101	91
1st to 4th years....	2,376	1,469	907	169	85	84
5th year or higher..	367	308	59	23	16	7
Total.....	100.0	64.8	35.2	100.0	52.9	47.1
1st to 4th years....	100.0	61.8	38.2	100.0	50.5	49.5
5th year or higher..	100.0	83.9	16.1	100.0	70.1	29.9

enrollment will be determined almost entirely by the future changes in the size of the population of school age.

V. TRENDS IN EDUCATIONAL ATTAINMENT

The 1960 census was only the third census in which data on years of school completed by the population had been collected. It is possible, however, by retrojecting the data for age cohorts, to obtain reasonable estimates of the educational status of the population as far back as 1910 (that is, the educational distribution of those 50 to 59 in 1940 was assumed to be the same as for those 40 to 49 in 1930, those 30 to 39 in 1920, and so forth).

As Table 4 shows, the trend in educational attainment has been continually upward, with most indicators pointing to the greatest improvement in the educational level during the past few decades. To be more exact, the decline in the percentage of the population with low educational levels was greatest in the 1920's and 1930's, whereas the increase in the percentage of the population with a high school or college education was generally greatest in the later decades. This may reflect the fact that, in a country with a belief in universal education and compulsory school attendance laws, the effort to give everyone a minimum acceptable level of schooling has taken priority over the effort to expand advanced education, at least until very recently.

Comparison of the statistics for 1910 and 1960 reveals an enormous rate of educational progress over half a century. If one looks at the adult population as a whole (that is, those 25 years old and over), the educational stock of the country is seen to have risen sharply—from 24 out of 100 without as many as five years of school in 1910 to 8 out of 100 in 1960; from 14 out of 100 attaining a complete high school education in 1910 to 41 out of 100 in 1960; and from the average adult in 1910 having received an elementary school certificate to his counterpart in 1960 having attained a partial high school education.

The increased output of the school systems during the 1910-60 period is inadequately indicated by these data for all adults, since the educational distribution of the adult population changes only to the extent that better-educated young persons attain adulthood and less well-educated adults, mainly older persons, leave the population through death. Educational progress may be measured on a more current basis by studying the data for those 25 to 29 years old at each date, persons who at the time were recent products of their schools. In 1910, one out of five had failed to complete the fifth year of school; in 1960, only one out of 36 had failed to do so. In 1910, 2 out of 10 were high school graduates, whereas in 1960 there were 6 out of 10; and while the average young adult in 1910 was an elementary school graduate, in 1960 he was a high school graduate. In half a century, this nation had achieved an educational objective that no country had before achieved—and few, if any, are likely to achieve in the near future.

Table 5 provides data to answer the question, "Have educational differentials by color been narrowing?" For the adult population as a whole, there was a smaller difference in the medians for whites and nonwhites in 1960 than in 1940. On further examination of the data, this narrowing of the differential in the median is seen to result exclusively from a greater reduction for nonwhites in the per cent with low levels of education. In fact, there were slightly greater percentage increases for white than nonwhite adults in the attainment of a high school diploma or college degree.

Here again, it may be more meaningful to look at the data for young adults whose educational statuses represent recent educational developments and to view a longer period of time. One striking finding is that, between 1920 and 1940, educational differentials by color for young people in this country were actually widening by most indicators. Expanding differentials were particularly pronounced at

Table 4.—EDUCATIONAL ATTAINMENT OF PERSONS 25 YEARS OLD AND OVER, AND 25 TO 29 YEARS OLD, BY SEX: CENSUSES OF 1960, 1950, AND 1940 ESTIMATES FOR 1930, 1920, AND 1910
 (Data for 1960 and 1950 include Alaska and Hawaii, not included in earlier years.
 Estimates for 1930, 1920, and 1910, based on retrojection or reported
 1940 census data on education by age and sex.)

Age and year	Both sexes				Male				Female					
	Median school years completed	Percent with--			Median school years completed	Percent with--			Median school years completed	Percent with--				
		Less than 5 years of school	High school 4 years or beyond	College 4 or more years		Less than 5 years of school	High school 4 years or beyond	College 4 or more years		Less than 5 years of school	High school 4 years or beyond	College 4 or more years		
<u>25 years and over</u>														
Census: 1960.....	10.5	8.3	41.1	7.7	10.3	9.4	39.5	9.7	10.7	7.4	42.5	5.8		
1950.....	9.3	11.1	34.3	6.2	9.0	12.2	32.6	7.3	9.6	10.0	36.0	5.2		
1940.....	8.6	13.7	24.5	4.6	8.6	15.1	22.7	5.5	8.7	12.4	26.3	3.8		
Estimate: 1930.....	8.4	17.5	19.1	3.9	8.3	19.1	17.5	4.6	8.5	15.9	20.7	3.1		
1920.....	8.2	22.0	16.4	3.3	8.2	25.0	14.5	3.9	8.3	19.1	17.1	2.4		
1910.....	8.1	23.8	13.5	2.7	8.1	25.9	12.4	3.4	8.2	21.6	14.6	1.9		
<u>25 to 29 years old</u>														
Census: 1960.....	12.3	2.8	60.7	11.1	12.3	3.4	59.7	14.4	12.3	2.2	61.7	7.8		
1950.....	12.1	4.7	52.8	7.7	12.0	5.4	50.6	9.6	12.1	4.0	55.0	5.9		
1940.....	10.3	5.9	38.1	5.9	10.1	6.9	36.0	6.9	10.5	5.0	40.1	4.9		
Estimate: 1930.....	8.8	9.7	26.9	5.5	8.7	10.6	24.6	6.5	8.9	8.9	29.1	4.5		
1920.....	8.5	13.6	20.7	4.1	8.4	16.7	19.2	4.9	8.5	14.6	22.1	3.4		
1910.....	8.3	19.3	17.0	3.4	8.2	21.2	15.7	4.1	8.4	17.3	18.5	2.6		

the high school and college level but were also observed in terms of average educational levels. Between 1940 and 1960, however, the situation changed dramatically. On both an absolute and a relative basis, young nonwhites had made greater gains than young whites. To illustrate, the percentage of high school graduates increased between 1940 and 1960 from 41 to 64 per cent (or 23 percentage points) for whites and from 12 to 39 per cent (or 27 percentage points) for nonwhites. While the per cent for whites was half again as high in 1960, for nonwhites it had tripled. Nonwhites in 1960 thus had about reached the level of whites in 1940. It probably will not, however, take young nonwhite adults another twenty years to reach the levels of whites in 1960.

The trends just described are based on reported census data for the past three decades and estimates for earlier years based on the reported data. What, we might ask, is the "true" trend? How would the data appear if we were able to adjust them for errors of reporting and other biases? Analysis of evaluation material does not give us precise estimates of the "true" figures but it does enable us to say in which direction and to what extent the reported figures are in error.³

The most important fact which emerge from this analysis are: (1) In both 1950 and 1960, there were considerable gross overstatement and gross understatement of years of schooling. Because there was somewhat more overstatement than understatement, the result was a small, but significant, amount of net overreporting. (2) Gross misreporting was lower in 1960

³ Three types of evaluation material were analyzed: First, the Post-Enumeration Survey results for 1950 and 1960 for the population 25 and over, which show the attainment distribution as reported in the census cross-classified by the attainment distribution as reported in the survey, were studied. Second, some unpublished 1950 Post-Enumeration Survey data on educational attainment by age were evaluated. Finally, census data on education for age cohorts over the three censuses, 1940, 1950, and 1960, were compared.

than in 1950 but net misreporting (for all grades combined) was generally the same at both dates. With regard to high school and college graduation, net overreporting was somewhat less in 1960 than in 1950. (3) Net overreporting at the high school and college level in 1950 tended to be relatively greater at the older than at the younger ages. (4) For given age cohorts, the 1940 data tended to be distributed more like the 1960 than the 1950 data. Thus, while there was net overreporting at all three dates, it was greatest in 1950 and generally of about the same order in 1940 and 1960.

What are the implications of these findings for the interpretation of trends? First, the "true" levels of education at all dates are probably slightly lower than they appear in Table 1. Second, the improvement in years of schooling between 1910 and 1960 was probably slightly greater than is indicated in the table. Third, the 1950 figures are out of line with the 1940 and 1960 figures to the extent that improvement between 1940 and 1950 is overstated and between 1950 and 1960 is understated.

No consideration has been given in this paper to measurement of educational attainment in terms of units other than years of schooling or to measurement of the trend in quality of education received. A number of persons in recent years, notably some economists, have examined attainment trends in terms of days of school received, largely because the length of the school year, on the national average, has changed so dramatically over the past fifty or sixty years. We believe that, at present, there is no information to indicate what the effect of the change in length of the school year on educational attainment is, when the latter is thought of in terms of the amount of fundamental knowledge acquired through the formal school systems. Likewise, historical information is lacking which would permit adjustments of trend data for changes in educational quality. Moreover, variations

Table 6.—PERCENT OF THE POPULATION 25 YEARS OLD AND OVER AND 25 TO 29 YEARS OLD WHO HAVE COMPLETED HIGH SCHOOL 4 YEARS OR BEYOND, BY STATE, 1940 AND 1960

Division and State	Percentage				Rank**			
	25 and over		25 to 29		25 and over		25 to 29	
	1940	1960	1940	1960	1940	1960	1940	1960
NEW ENGLAND:								
Maine.....	28.8	43.3	44.2	58.2	15	20	18.5	32
New Hampshire.....	26.8	42.9	41.6	62.8	18	21	22	24
Vermont.....	27.9	42.8	42.8	60.4	17	22	20	31
Massachusetts.....	31.0	47.0	48.5	68.5	9	13	12	11
Rhode Island.....	21.1	35.0	32.4	56.0	38.5	39	36	37
Connecticut.....	25.1	43.9	38.1	66.0	22	17.5	28	17
MIDDLE ATLANTIC:								
New York.....	23.4	40.8	38.3	63.3	31	29	27	22
New Jersey.....	23.0	40.7	34.9	63.9	32	30	33	18
Pennsylvania.....	21.2	38.1	35.0	63.5	37	36	32	19.5
EAST NORTH CENTRAL:								
Ohio.....	25.7	42.0	45.2	61.2	20	25	16	28
Indiana.....	24.8	41.8	46.2	60.7	24	26	15	30
Illinois.....	24.3	40.4	40.9	63.5	28	32	24	19.5
Michigan.....	24.7	40.9	41.0	62.1	25.5	28	23	26
Wisconsin.....	22.4	41.6	41.7	69.3	34	27	21	8
WEST NORTH CENTRAL:								
Minnesota.....	25.1	43.9	44.2	72.3	22	17.5	18.5	3
Iowa.....	28.9	46.3	52.1	72.1	13.5	14	7	4
Missouri.....	22.2	36.6	36.8	61.4	35	38	30	27
North Dakota.....	22.5	38.9	38.4	63.2	33	35	26	23
South Dakota.....	25.1	47.7	44.7	66.3	22	24	17	15.5
Nebraska.....	28.9	27.7	51.6	73.2	13.5	12	10	1.5
Kansas.....	28.5	48.2	51.7	71.1	16	9	9	5
SOUTH ATLANTIC:								
Delaware.....	23.9	43.4	36.5	62.4	29	19	31	25
Maryland.....	21.1	40.0	32.2	56.4	38.5	33	37	34
Dist. of Columbia.....	41.2	47.8	53.2	61.1	1	10.5	6	29
Virginia.....	21.6	37.9	28.7	52.7	36	37	40	39
West Virginia.....	17.8	30.5	28.9	51.1	43	43	39	40
North Carolina.....	19.0	32.3	25.2	48.3	40	40.5	43.5	43.5
South Carolina.....	18.4	30.4	22.5	43.2	41	45	45	49
Georgia.....	17.4	31.9	21.9	47.6	45	42	47	46
Florida.....	26.6	42.6	30.5	56.1	19	23	38	35.5
EAST SOUTH CENTRAL:								
Kentucky.....	15.7	27.6	25.2	44.2	48	49	43.5	47.5
Tennessee.....	18.1	30.4	25.4	47.7	42	45	42	45
Alabama.....	15.9	30.4	21.3	48.5	47	45	49	42
Mississippi.....	16.2	29.8	21.6	44.2	46	47	48	47.5
WEST SOUTH CENTRAL:								
Arkansas.....	15.1	28.9	22.1	48.3	49	48	46	43.5
Louisiana.....	17.6	32.3	25.6	49.8	44	40.5	41	41
Oklahoma.....	24.5	40.5	39.4	63.4	27	31	25	21
Texas.....	24.7	39.6	34.3	56.1	25.5	34	34	35.5
MOUNTAIN:								
Montana.....	29.4	47.8	48.2	67.3	11.5	10.5	14	12
Idaho.....	30.5	48.6	49.7	66.3	10	7	11	15.5
Wyoming.....	32.9	52.1	51.9	69.2	7	3	8	9
Colorado.....	32.1	52.0	48.3	69.4	8	4	13	7
New Mexico.....	23.8	45.4	34.0	57.1	30	16	35	33
Arizona.....	29.4	45.7	37.9	55.5	11.5	15	29	38
Utah.....	37.0	55.8	58.6	73.2	3	1	1	1.5
Nevada.....	35.6	53.3	55.0	66.4	4	2	4	14
PACIFIC:								
Washington.....	33.6	51.5	56.3	70.5	5	5.5	2	6
Oregon.....	33.1	48.4	54.3	69.1	6	8	5	10
California.....	37.3	51.5	55.6	66.6	2	5.5	3	13
Alaska.....	26.6	54.7	NA	61.8
Hawaii.....	20.5	46.1	NA	71.6

**Ranks do not include Alaska and Hawaii since 1940 and 1960 data are not strictly comparable

in the quality of education received have probably been almost as great among areas and subgroups of the population at one point in time as for the United States as a whole over a long period of time.

Table 6 is designed to show how improvement in education has spread to all parts of the country.⁴ Substantial gains between 1940 and 1960 in the per cent of the population with a completed high

school education were recorded in every state, and at least some increase in this percentage was observed for every county in the United States. Because of changes in urban and rural and farm and non-farm definitions, it is not possible to measure accurately the changes in educational attainment for these areas, but, because of selective migration patterns, farm areas in the country as a whole have shown much less improvement in the educational stock of their people than have non-farm areas.

⁴ A table comparable to Table 6, but referring to counties, may be obtained by writing to the senior author.