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CHAPTER 9

OLDER WORKERS IN THE LABOR FORCE

THE reduction in labor force participation among men aged 65 and older has been generally much greater than that among any other age group, as seen in Chapter 8 and Table 28.

In the United States the number of men of this age in the labor force decreased from around 700 per 1,000 males 65 and older in 1890 to 425 per 1,000 in 1950—a decline of about 50 per 1,000 per decade (Chart 17). The decline was smaller in Canada, but it was larger in Germany and Great Britain and it was enormous in New Zealand—well over 100 per decade. The result was that in the last census relatively fewer of the elderly men participated in the labor force in these countries than in the United States; the proportion was slightly lower in Canada in 1951, and it was much lower in New Zealand in 1951, in Germany in 1950, and in Great Britain in 1951.

The percentage decrease in the labor force of elderly men in the United States ranged from 0.57 to 0.84 (depending on area) for each 1 per cent rise in real annual disposable personal income per equivalent adult-male worker employed; in the foreign countries it was generally much larger. And except in Britain and New Zealand, the relative declines were greater in the recent period.

This chapter undertakes to explain why the labor force of elderly men has been shrinking in this and other countries since the turn of the century.

Demographic Changes within the Older Group

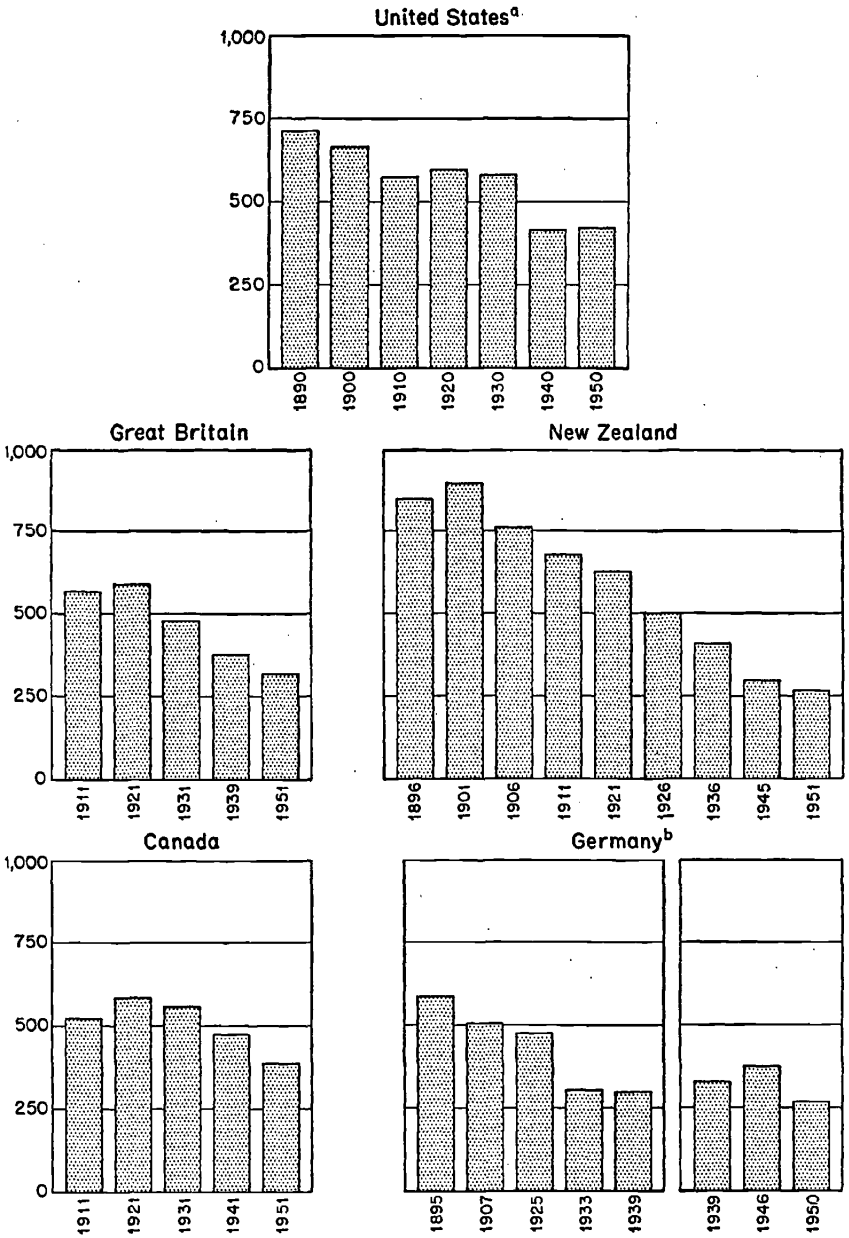
The widespread tendency for the 65 and older age group to grow in relation to the total population has been noted. Has there been an analogous tendency for the more elderly, say those of 70 or above, to increase in relation to the group 65 and older? In the United States, the ratio of those aged 70 or older to those aged 65 or older remained about the same throughout the period under study. In the other countries studied, the ratio rose on occasion, but in the more recent years it was equal to, or lower than that in at least some earlier years. Apparently not much had happened during the time covered to change the life expectancy of a person who had reached age 65 or more.¹

Could one cause of the decline be the migration from rural to urban areas? Throughout 1890–1950, men aged 65 and older in the United States showed less participation in the labor force in urban than in

¹ *Man and His Years*, Federal Security Agency, 1951, p. 21.

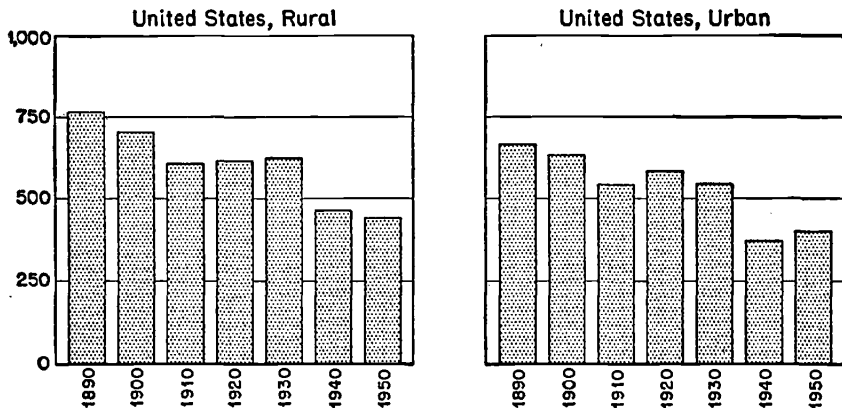
CHART 17

Men 65 and Older in the Labor Force per 1,000 in Same Population Group:
5 Countries, Various Years, 1890-1951



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CHART 17, concluded



^a Standardized for rural-urban composition on basis of United States population in 1940.

^b For 1895-1939, boundaries after World War I, without the Saar; 1939-1950, Federal Republic of Germany, without Berlin.

Source: Appendix A.

rural areas.² However, participation of elderly persons declined more in rural areas in both early and recent periods. And so sharp was the decline in both types of area that standardization for the effect of migration modified the decline in the total labor force of men aged 65 and older relatively little (Chapter 8, Table 28).

The effect of the changing composition of the population with respect to color and national origin may also be discounted. In the whole period, the rate of participation was higher for colored than for white men; but since Negroes have been a minority of the population, and a rather constant minority at that, their presence had only a light impact on the pattern of change of all classes. The foreign-born had a greater effect but in the opposite direction, so that the combined result was largely cancelled out, leaving only a negligible impact on the pattern of labor force change of the elderly (Table 31).

It is reasonable to conclude that the reason for the declining participation of elderly men does not lie in changes in the distribution of the population by age, residence, color, or national origin. Not without interest, however, is the fact that for elderly whites the decline halted between 1940 and 1950, but for the elderly colored it was intensified—yet employment opportunities for the latter were probably greater during the 1940's than ever before.

² This was probably true in comparison with farm areas rather than with rural-nonfarm areas, for in 1940 and 1950 men in each 10-year age group 35 and older participated in the labor force in generally smaller proportions in urban areas than in farm areas, but in higher proportions in urban than in rural-nonfarm areas.

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TABLE 31

Effect of the Foreign-Born and Negroes on Rate of Participation of Elderly Males in the Labor Force, United States, Census Dates, 1890-1950

	1890	1900	1920	1930	1940	1950
<i>Rate of Participation</i> ^a						
1. All classes	739	683	601	583	415	420
2. Natives (white & nonwhite)	759	711	630	609	426	423
3. Whites (native & foreign-born)	725	668	585	573	410	418
4. Native whites	742	693	611	597	420	421
<i>Method No. 1</i>						
5. Effect of foreign-born (line 1 minus line 2)	-20	-28	-29	-26	-11	-3
6. Effect of colored (line 2 minus line 4)	+17	+18	+19	+12	+6	+2
7. Combined effect (line 1 minus line 4 or line 5 plus line 6)	-3	-10	-10	-14	-5	-1
<i>Method No. 2</i>						
8. Effect of foreign-born (line 3 minus line 4)	-17	-25	-26	-24	-10	-3
9. Effect of colored (line 1 minus line 3)	+14	+15	+16	+10	+5	+2
10. Combined effect (line 8 plus line 9)	-3	-10	-10	-14	-5	-1
<i>Discrepancy between Methods</i>						
11. Effect of foreign-born (line 5 minus line 8)	-3	-3	-3	-2	-1	0
12. Effect of colored (line 6 minus line 9)	+3	+3	+3	+2	+1	0

Source: Appendix A.

^a Number of males aged 65 and older in labor force per 1,000 of same age group, color, and place of birth.

Old Age Security and Pensions

Recent years have brought improvements in private pensions, social security benefits, federal and state assistance, and various forms of direct or indirect charity. Do such subsidies offer a means or an incentive for elderly people to stop working?³

Here it is necessary to keep in mind two things. First, many elderly persons have dropped out of the labor force even when pensions were

³T. Lynn Smith has concluded that "since the social security program was instituted in the United States, there has been a strong tendency for persons less than 65 years of age to declare themselves old enough to qualify for old-age assistance." "The Recent Increase of Persons in the Social Security Ages," *American Sociological Review*, June 1945, pp. 414-418.

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inadequate or nonexistent. They left in extremely large numbers in the United States during 1890-1910 and 1930-1934, when there were almost no government assistance and private pension plans,⁴ and still more dropped out between 1930 and 1940, although old age assistance (charity payments) was inadequate during that decade and was not effectively supplemented by social security until after 1940. In New Zealand as many elderly males left the labor force between 1906 and 1926 as between 1926 and 1936, when benefits were definitely on the increase. Second, older workers actually re-entered the labor force or suspended their exodus temporarily during 1940-1950, despite the widespread extension of social security and private pension systems.⁵

Thus social security and pensions were far from being the main force (though they doubtless helped) in bringing about the withdrawal of elderly persons from the labor market. Indeed, there is evidence that elderly people desire to work as late in life as their health permits,⁶ mainly because old age benefits rarely take the place of earned income even when they are comparatively generous. This is true not only of most company benefits but also of those paid by the Federal Old Age and Survivors Insurance System, which in 1941 remitted an average primary benefit of \$23 per month; and few persons could live on this without help.⁷ Between 1940 and 1945, the first five years during which benefits were paid, less than a third of all qualified men and women aged 65 and over who could have drawn old-age benefits by leaving employment, did so, and the rate of retirement from the labor force slowed down. For the next five years the rate speeded up again, but as late as June 1, 1950 two in five of the fully insured were still not drawing the allowances they were entitled to. "The psychological factor of hating to be put 'on the shelf' by poor health or the loss of a job makes many elderly workers resentful of enforced retirement."⁸ "The

⁴ In Massachusetts, Michigan, and Rhode Island participation of elderly persons in the labor force declined rapidly from 1930 to about 1935, despite large decreases in income.

⁵ A return or suspension of withdrawal occurred only in the United States during the 1920's and 1940's, and in Nazi Germany after World War I.

⁶ Only about 5 per cent of 2,380 men receiving old age benefits, visited in 1941-1942 by representatives of the Bureau of Old-Age and Survivors Insurance, said they retired and filed for insurance because they wished to do so, and while they were in good health. More than half the men reported that they were laid off by their employers, and about a third said they had left their jobs because of illness or failing health. Edna C. Wentworth, "Why Beneficiaries Retire," *Social Security Bulletin*, January 1945, p. 16.

⁷ Some dwelt in joint households; some received family, public, or private assistance; many supplemented their income by working. Edna C. Wentworth, "Income of Old-Age and Survivors Insurance Beneficiaries, 1941 and 1949," *Social Security Bulletin*, May 1950, pp. 3-10.

⁸ Edrita G. Fried, "Attitudes of the Older Population Groups Toward Activity and Inactivity," *Journal of Gerontology*, April 1949, pp. 141-151.

principal reason, however, is that without earnings they do not have resources enough to live at the level to which they are accustomed or even to meet the cost of their basic needs."⁹

Disposable Income

It might be expected that older men in borderline physical condition would tend to leave the labor force if they or their children were prosperous enough to provide for their support in retirement. Chapter 4 revealed that at a given time the labor force of men aged 65 and older was smaller in areas where incomes were higher. Is there an analogous relationship over time?

It is true that in the United States up to 1930 the inverse association over time was reasonably close to the association seen in Chapter 4. But when income per worker was rising very little or not at all, e.g. in Canada during 1921-1931 or in Germany during 1895-1925, more elderly men were leaving the labor force per decade than when income was rising rapidly, e.g. in the United States during 1940-1950. The outflow over time in different countries agreed more closely in absolute numbers than in relation to income changes which, then, either had no effect or were obscured by more powerful forces. Is one of these forces the fluctuations or trends, perhaps, in the ability to work?

The Older Man's Ability to Work

That certain capacities diminish with age, beginning almost at adulthood, is supported by considerable evidence. According to Miles of Stanford University, a man's manual mobility and reaction speeds reach an optimum in his twenties or thirties;¹⁰ and his speed of learning reaches its peak shortly after his teens.¹¹ A. T. Welford, of the Cambridge University Psychological Laboratories, has concluded that as a man grows older he has increasing difficulty in comprehending verbal or visual data, particularly when they are new or unfamiliar, and as a result has to rely more and more on his past experience.¹²

Nevertheless it has been pointed out that this deterioration usually

⁹ Margaret L. Stecker, "Beneficiaries Prefer to Work," *Social Security Bulletin*, January 1951, p. 16. This was also brought out by a sample survey of England and Wales in 1945 which revealed that 20 per cent of the men and women over 60 preferred to work; the rest could not afford to retire. Geoffrey Thomas, *The Employment of Older Persons*, Industrial Health Research Board, January 1947, p. 42.

¹⁰ Walter R. Miles, "Measures of Certain Human Abilities Throughout the Life Span," *Proceedings of the National Academy of Sciences*, 1931, pp. 627-633.

¹¹ A. J. Carlson and E. J. Stieglitz, "Physiological Changes in Aging," *Annals of the American Academy of Political and Social Sciences*, January 1952, p. 22.

¹² A. T. Welford, *Skill and Age: An Experimental Approach*, Oxford, The Nuffield Foundation, 1951, p. 146.

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occurs at a slow rate until fairly late in life.¹³ And O. J. Kaplan reports that mental abilities are maintained without loss by some persons until late maturity, with losses occurring where they do largely because of disuse or lack of training; and that many of the test instruments and procedures are not relevant to the efficiency of elderly people in jobs.¹⁴ "Although speed may decrease among older people," Welford concludes, "the deficiency is often more than offset by gains in quality and accuracy. Also it seems that even at the age at which most subjects show some fall in performing, there is a substantial number of individuals who maintain performance comparable with that of people in their twenties or thirties."¹⁵

It is not entirely certain, therefore, that elderly persons are actually less efficient workers, provided they are physically fit. But many older people name health as their reason for retiring, and it may be worth while to inquire as to whether, and how much, physical stamina has retrogressed in the past several decades. The life expectancy of the male in the United States has risen since 1900 by twenty years,¹⁶ and for men of 65 it now stands at nearly fifteen years.¹⁷ Are many of the less robust being preserved by medical science over longer life spans? Is the average man over 65 or over 45 a poorer specimen than one who was hardy enough to have achieved that age a generation or two ago?

Some light was focused on this question several years ago when Ernst Simonson asked "whether the increased life expectancy is associated with increased ability at work in the older age groups," and made a rather tenuous comparison between studies by Quetelet in 1836 of persons in different muscle groups in Belgium and studies by Rejs eighty-five years later of a group of 3,000 Dutch men and women. These comparisons could scarcely be said to offer rigorous proof, and Simonson pointed out other factors that might have helped to explain the result. Nevertheless he concluded that in 1921 maximum muscle strength was reached about a decade later in life than it was in 1836, and that "The decline of muscle strength at the age of 37 years in 1836 was about the same as that at the age of 50 years in 1921. In the same period, the life expectation for males in Holland increased from 34.9 years to 55.1 years. . . . The over-all trend is unquestionable, and

¹³ Miles, *op. cit.*, p. 633.

¹⁴ Psychological Aspects of Aging," *Annals*, January 1952, p. 36.

¹⁵ Welford, *op. cit.*, p. 147.

¹⁶ Harland Fox, "Utilization of Older Man Power," *Harvard Business Review*, November 1951, p. 43.

¹⁷ Ray M. Peterson, F.S.A., *Description of a Modern Mortality Table, For Judging the Adequacy of the Funding Basis of Private Retirement Plans*, Equitable Life Assurance Society, 1953, paper presented at personnel meeting of American Management Association, February 16-18, 1953, Chart 3. The life expectancy of the 65-year-old female in 1953 was nearly eighteen years.

the comparison . . . seems to imply that the increased life duration is associated with a better maintenance of muscle strength, and possibly also of other functions important for the over-all working capacity." Life expectancy and peak strength were both prolonged, Simonson believed, by the improved standard of living.¹⁸ Certainly the study lends no support to the hypothesis that older workers retired because they were not as strong as their forebears of equal age a generation or two ago.

Company Practices in Hiring and Retirement

Whether or not older employees are less efficient, many firms customarily retire their employees at a certain age. Over half the retirements in nonagricultural industries have been found by the Twentieth Century Fund to be compulsory,¹⁹ and in 1950 about four in ten of several hundred companies told the Equitable Life Assurance Society, which insured their plans, that they required their employees, whether covered by the plans or not, to retire at a certain age, normally 65.²⁰

No less common are rules against hiring new employees at ages above 45, 40, or even 35. A number of postwar surveys in New York State,²¹ supported by two studies of the National Industrial Conference Board²² and a nation-wide sampling of nearly 300 concerns by the National Association of Manufacturers in cooperation with the United States Chamber of Commerce, showed that between 25 and 40 per cent of all firms do not ordinarily employ personnel above these ages.²³ The rules are more strict in some cases than in others. Abrams

¹⁸ Ernst Simonson, M.D., "Physical Fitness and Work Capacity of Older Men," *Geriatrics*, January-February 1947, pp. 110-112, 117. For a contrary view see W. J. Cohen in *Proceedings of the 3rd Annual Meeting*, Industrial Relations Research Association, December 1950, p. 329. Cohen sees reason to believe that the number of persons with disabilities is increasing, particularly in age groups approaching 65.

¹⁹ Howard A. Rusk, M.D., in the *New York Times*, February 24, 1952, p. 67. Only 25 per cent were retired because of poor health.

²⁰ *Survey of Retirement Practices*, Equitable Life Assurance Society, June 1, 1950, p. 1. The replies came from a wide variety of occupations, including retailing, wholesaling, manufacturing, public utilities, finance, schools and hospitals, oil, steel, and insurance. The majority of companies treated both wage and salary earners alike (p. 2). See *289 Retirement Plans*, Bankers Trust Company of New York, 1948, p. 7.

²¹ *Community Survey of Employment of the Elderly, Rochester, N.Y.*, Industrial Management Council, January 1, 1948; Albert J. Abrams, "Industry Views Its Elderly Workers," in *Birthdays Don't Count*, New York State Joint Legislative Committee on Problems of the Aging, Leg. Doc. 61, 1948, pp. 152-153.

²² "Maximum Age Hiring Practices Surveyed," *Factory Management and Maintenance*, January 1948, pp. 222-226, and "Personnel Practices in Factory and Office," *Studies in Personnel Policy No. 88*, National Industrial Conference Board, 1948.

²³ *Employment of the Physically Handicapped and Older Workers*, National Association of Manufacturers, 1949, p. 15.

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has reported that they are applied rather rigidly in public utilities, in new industries (such as chemicals, plastics, and aviation), and in big firms in general, and more flexibly in small enterprises and service industries. They are probably enforced more generally when labor is plentiful and jobs are scarce, and they are apt to be found with private pension schemes.²⁴ In his Minneapolis studies of 168 firms with 57,000 employees, Fox also brought out that both salaried and hourly employees are utilized after age 65 much less in firms with pension schemes.²⁵ And such rules are likely to occur with company policies of hiring only at the bottom and promoting from within.²⁶ They are not on balance ameliorated by labor union rules governing seniority, apprenticeship, and transfers, or by the general unwillingness of unions to permit downgrading in pay and position as abilities decline.²⁷ And they may be aggravated by the medical examinations on which hirings are often based, which frequently search for disabilities that are no handicap in the job.²⁸

Obstacles to retention of an existing employee beyond the age of 65, or to hiring a new one who is older than 35 or 45, appear unreasonable to the older man, who may believe that he is more productive than when he was a decade younger or that he is more efficient than younger people currently performing the same tasks.²⁹ Nevertheless these rules against older workers are often logical enough to the employer. A leading corporation executive—himself in his sixties—is reported as stating in early 1953 that “keeping older people with diminished capacity in the labor force appreciably reduces efficiency.”³⁰ Some managements fear that the employee, where he has not yet deteriorated, will one day suddenly do so. Others believe, often without tangible evidence, that older persons have more serious accidents, do not get along well with younger persons, and are not receptive to new ideas.³¹

²⁴ A. J. Abrams, “Barriers to Employment of Older Workers,” *Annals*, as cited, pp. 62–71. But even in times or places of labor shortage, it is not uncommon for defense plants and government agencies to advertise for workers under 45 or 35 (p. 65). Rules against hiring older workers are apt to be found with private pension plans, either because of the high cost of adequately pensioning off employees who have been with a company only a few years, or because firms are reluctant to hire short-term help who will be retired on a pittance (p. 67).

²⁵ Harland Fox, “Utilization of Older Man Power,” *Harvard Business Review*, November 1951, p. 43. See also Sumner Slichter, “Economic Problems of Support of Retired Persons,” in *Criteria for Retirement*, Geneva Mathiasen, editor, Putnam, 1953, p. 161.

²⁶ Lloyd G. Reynolds, *The Structure of Labor Markets*, Harper, 1951, p. 83.

²⁷ Abrams, *op. cit.*, p. 70.

²⁸ *Ibid.*, p. 68.

²⁹ See also “Older Workers Seek Jobs,” *Survey in Four Employment Service Offices*, Bureau of Employment Security, August 1951.

³⁰ Abrams, *op. cit.*, p. 66.

³¹ After surveying twenty-six large manufacturing companies employing chiefly

Still others may find it expedient to clear promotion channels in order to keep the more ambitious young people from leaving.³² A consideration not easy to measure but important with regard to white-collar employees, is the effect of automatic raises, frequently made on the basis of years of service without close attention to efficiency. Gradually, older workers may reach wage levels above their productivity and consequently be replaced by younger and lower-paid men or women, wherever a good excuse presents itself.

Another consideration—often urged—is that an ever larger proportion of workers must now rely on jobs with firms for their livelihood, and that an ever smaller proportion earn a living on farms, in family enterprises, or in self-employment, where compulsory retirement rules have not been a factor.³³ Actually, there seems to be little factual evidence that the ratio of employees to self-employed has changed significantly in recent generations. In Great Britain, during three decades, only about one in every 100 gainfully occupied persons shifted from working on his own account to salaried employment, while nearly 30 in every 100 elderly men left the work force. In the United States, self-employed persons and employers dropped from just under 20 per cent of the labor force in 1910 to just under 19 per cent in 1940, again hardly more than one per 100, while the outflow of elderly persons was 17 per 100.³⁴ Although there was a noticeable decline in self-

skilled or semiskilled labor, Palmer and Brownell concluded that employers hesitated hiring older workers except where skill was needed, partly in the belief that they were less versatile. The tendency was to protect them on layoffs by applying seniority rules, even in nonunion plants, but to hire new workers under 35.

Their study could not find any general tendency for older workers to be less efficient or to be subject to more illness or accident. Many notions about the inferiority of the older worker prove on closer examination to be fanciful; see D. L. Palmer and J. A. Brownell, "Influence of Age on Employment Opportunities," *Monthly Labor Review*, April 1939, pp. 765-780.

This writer observed in a General Motors plant in 1947 that older women were preferred by many supervisors as being more industrious and reliable than the "bobby-soxers" and "jitterbugs." The plant employed many women in their fifties and even late sixties. One robust woman of 70 was doing a hard job polishing precision parts to close tolerances.

The industries in which the older worker finds it especially difficult to get a job are not those with a stable working force, but, rather, those in which seasonal or temporary work makes it easy to discriminate impersonally. Considerable discrimination against older workers occurs in insurance companies and in construction during a depression, and in chain stores, hotels, and restaurants, where the younger worker is more attractive to the customers.

³² Fox, *op. cit.*, pp. 44, 51.

³³ Slichter, *op. cit.*, p. 159. See also, *Man and His Years*, Federal Security Agency, 1951, p. 26 (the section on population changes and their economic implications).

³⁴ Workers on own account, excluding employers: 1921, 12 and older; 1931, 14 and older; 1951, 15 and older. Source: Appendix A. Also, for the United States, *Census of Population: 1940, Comparative Occupation Statistics for the United*

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employment of persons of all ages during 1920-1930, it was not accompanied by an appreciable exodus of elderly men from the labor force. Yet there was an actual recovery of self-employment during 1930-1940, when the outflow of elderly persons was greater than at any time since 1890. Any affinity between a decline in the proportion of the self-employed and a decline in the proportion of elderly men in the labor force has been very weak.

It has been argued that "with our rapid industrialization and the growth of large corporations . . . in the last fifty years . . . it became more difficult to make individual differences and compulsory retirement at an arbitrary age became the easiest way out. . . ." ³⁵

Some specially illuminating findings have recently become available as the result of a comprehensive sample survey of the experience and problems of older workers in major industry groups of seven labor market areas: Detroit, Los Angeles, Miami, Minneapolis and St. Paul, Philadelphia, Seattle, Worcester. This survey revealed that there was a rather definite tendency for the proportion of older workers—65 and older or 45 and older—to be smaller, the larger the number of employees in the establishment. There were cities in which this tendency was not observed in all industries; it did not occur without interruption or reversal; and it did not seem to hold at all for service establishments; but on the whole the tendency for the size of an establishment to work against the employment of older workers was fairly clear cut. ³⁶

But has the average size of firms been increasing enough to explain the decline in the participation of older workers? It is again illuminating to turn to some actual figures: this time on employees per firm in operation. ³⁷ The usual difficulties of defining a firm are present, and

States, 1870 to 1940, pp. 63-72; Vol. III, *The Labor Force*, Part I, p. 7; 1950, *United States Summary*, PB1, p. 102. For Great Britain, *Annual Abstract of Statistics*, London, Central Statistical Office, No. 88, p. 15; No. 89, p. 14.

³⁵ Rusk, *loc. cit.*

³⁶ *Older Worker Adjustment to Labor Market Practices*, Dept. of Labor, BES No. R 151, September 1956, pp. 40 and *passim*. The survey was conducted by the United States Bureau of Employment Security with the cooperation of its state agencies and of four universities, and was based on a sample of employed workers in establishments having 8 or more workers covered by the state unemployment insurance law or by the Railroad Retirement Act. The writer is grateful to Mr. Sheldon Haber of The Johns Hopkins University for calling attention to this survey.

³⁷ The number of firms in operation by industry is from Dun and Bradstreet, Inc. (*Statistical Abstract of the United States*, Bureau of the Census, 1954, p. 502). The number of employees in private nonagricultural establishments is from the Bureau of Labor Statistics (*ibid.*, p. 200), including all full- and part-time employees in pay periods ending nearest the fifteenth of the month. Proprietors, self-employed persons, domestic servants, and government employees were excluded.

the statistics doubtless reflect the improving efficiency of the fact-collecting agencies in locating tiny businesses that formerly escaped count. Such as they are, the data do not disclose any real increase in the average size of firms or any connection between changes in size of firm and the proportion of elderly men leaving the labor force. Between 1930 and 1940, while the participation of large numbers of older men was declining, the average size of firms dropped, though very slightly. This slight drop occurred because the number of private non-agricultural establishments grew a bit more rapidly than the number of employees of such firms. (There was, however, an appreciable rise in the number of employees per firm in manufacturing.) Then in the 1940's, while the average size of firm was rising (though slightly) the participation of elderly men in the labor force rose again. Serious doubt has also been thrown on the supposition that there has been increasing concentration of manufacturing in larger firms during the first four decades of the century.³⁸ If there has been a tendency for firms to standardize personnel policies so as to discriminate against men above middle age, it has not been the mechanical result of the increasing size or the concentration of business firms.

It would seem plausible that arbitrary discrimination is greater now than it was in the past, but this is by no means certain. A study in 1949 by the National Association of Manufacturers and the United States Chamber of Commerce found about the same proportion of firms with age barriers as a similar study by the N.A.M. in 1930.³⁹ These results for 1930 are not contradicted by those of another study of firms in New York state in the same year.⁴⁰ And over a half century ago the Commissioner of Labor Statistics of New York testified before the federal Industrial Commission, "We find in the free employment office conducted by the State that for a female who admits she is 45 years of age it is very difficult to get employment; and if a man admits an age much over 50 he also finds it very difficult. I saw . . . one case myself there . . . of an engineer whose hair was gray but who was physically a young, strong man, looked to be in the prime of life; in fact at a time to get the best work out of him, and he was refused employment on account of his gray hairs, and the Superintendent tells

³⁸ G. J. Stigler, *Five Lectures on Economic Problems*, London, Longmans, 1949, Lecture 5; C. Warren Nutter, *The Extent of Enterprise Monopoly in the United States, 1899-1929: A Quantitative Study of Some Aspects of Monopoly*, University of Chicago Press, 1951, pp. vi, 118-121. See review of these two works by Solomon Fabricant, "Is Monopoly Increasing?" *Journal of Economic History*, Winter 1953, pp. 89-94.

³⁹ Abrams, *op. cit.*, p. 62.

⁴⁰ Solomon Barkin, "The Older Worker in Industry," in *Report of the Joint Legislative Committee on Unemployment*, The State of New York, *Leg. Doc. 66* (1933), pp. 190-204.

me that prevails pretty generally in the office." (*United States Industrial Commission Reports*, 1900, Vol. VII, p. 809.)

Could discrimination against older workers be shown to be on the increase, there would remain the question of why these rules and practices had been adopted.

The March of Technology

One explanation may be that the pace of modern industry is too swift for the physical and nervous energy of the older man. But it has not been proved conclusively that a person becomes less efficient, on balance, as he passes 45 or 65, especially since up-to-date machinery and methods may lighten the physical burden of the work and place a premium on judgment and experience.⁴¹

There are other aspects of technological progress that might, however, have serious consequences. As firms die, or processes become obsolete, or departments are reorganized, the older worker loses his place and with it his seniority or his moral claims on the employer. Protections erected by custom and humanity around him may not only fail to help, but may even work against him. Employers in new industries presumably will not wish to hire the older worker at a higher salary and on more liberal terms than would be necessary in hiring a younger man or woman, and they will hesitate to subject him to a lower grade than he has achieved. Long established firms may be so heavily committed to older persons already on their payrolls that they are not anxious to take on more such obligations.⁴²

One might suppose that industries with the most rapid technological advance would have the fewest older employees. It is impossible to construct a really satisfactory index of technological progress in order to test this hypothesis. This study compares the annual percentage reduction in labor requirements per unit of output in a dozen manufacturing industries between 1899 and 1939, as computed by Solomon Fabricant, with the change between 1910 and 1940 in the ratio of men

⁴¹ R. K. Burns, "Factors in Determining Retirement Age," *Proceedings of the Third Annual Meeting*, Industrial Relations Research Association, December 1950, p. 336; J. A. Hobson, *Work and Wealth*, Peter Smith, 1948. Hobson observes that the main trend of development of industrial machinery has been toward using tools and power to do work which men could not perform with the required regularity, exactitude, and speed, by reason of organic deficiencies (p. 72). While claiming there has never been an age or country where most labor was not toilsome, painful, monotonous, and uninteresting, he concedes it is probably less burdensome now than ever before (p. 76). P. J. D. Wiles in "Notes on the Efficiency of Labour" (*Oxford Economic Papers*, June 1951, pp. 158-180), has concluded, largely on the basis of qualitative material, that the pace of work is much less arduous in England now than it was a generation or two ago.

⁴² Sumner Slichter stresses this factor, perhaps unduly in view of its lack of quantitative re-enforcement (*op. cit.*, p. 157).

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aged 45 and older to all men in the chief occupations allied to these industries. There was some growth in the ratio of elderly workers to all workers, and some labor-saving in all industries, but these changes were in no way associated. Moreover, the outflow of elderly workers was smaller in the United States than in Britain and Germany, where there was less industrial progress.

But is there an association between growth in the size of an industry and decline in the proportion of elderly workers? Such a possibility is investigated for major industry groupings for the census dates 1910-1940 (Table 32). Do industries increasing most rapidly in number of

TABLE 32
Change in Ratio of Male Workers 45 and Older to All Male Workers, and Percentage Growth in Number Gainfully Occupied, Various Industries, United States, 1910-1940

	Percentage Change in Gainfully Occupied		Percentage Change in Ratio of Male Workers 45 and Older to All Male Workers	
	1910-1930	1910-1940	1910-1930	1910-1940
Public service	+129	+294	-7	-7
Trade	+108	+193	+10	+32
Professional services	+105	+133	+25	+23
Transportation	+68	+27	+38	+80
Manufacturing	+50	+46	+31	+38
Domestic and personal services	+28	+16	+23	+47
Mining	+20	+8	+53	+68
Construction	-8	-1	+25	+30
Agriculture	-15	-30	+30	+36
Entire labor force	+35	+46	+23	+34

Source: *Census of Population: 1930*, Vol. IV, *Occupations by States*, Tables 21, 22; 1940, Vol. III, *The Labor Force*, Part I, pp. 197-198, and Alba M. Edwards, *Comparative Occupation Statistics for the United States, 1870 to 1940*, Table 14.

workers tend to manifest the slowest rise, or a decline, in the proportion of older men? Some such tendency is, of course, to be expected since rapid expansion would ordinarily occur by accession of new and young workers. Nevertheless, if a tendency was present, it was too feeble to indicate that rapid growth squeezes out older people, or that slow growth leaves an industry with a residue of aging workers. The proportion of older employees in manufacturing, in which employment rose by about half between 1910 and 1930, increased at about the same rate as that in agriculture, which reduced its work force, or in professional service, which doubled its work force.

Have older workers been replaced because industries employing them were supplanted by those employing younger people? Standardizing the ratio of elderly workers to workers of all ages in each industry

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in 1940, according to the industrial composition of the labor force in 1910, raises the over-all ratio of older men less than 1 per cent. Inter-industry movements have affected the proportion of older workers negligibly, not because these movements were small—they occurred on a grand scale—but because the industries that grew in number of employees, notably trade and government, employed just as high proportions of older workers as those that diminished in work force, notably agriculture.

Unemployment

The three censuses of 1930–1950 revealed the following. The reduction in the proportion of older men in the labor force was closely connected with both the level, and the change of unemployment (Table 33). And the older the men, the closer was the connection. Among

TABLE 33

Outflow of Men from Labor Force, Level of Unemployment, and Change in Unemployment, 3 Age Groups, United States, 1930–1940, and 1930–1950

	1930–1940			1930–1950		
	55–64	45–54	35–44	55–64	45–54	35–44
Change in labor force per 1,000 of same age:						
Number per 1,000	–64	–44	–29	–73	–48	–34
Rank of age group	1	2	3	1	2	3
Average level of unemployment						
Per cent of labor force of same age	11.4	10.1	9.0	6.2	5.4	5.1
Rank of age group	1	2	3	1	2	3
Change in unemployment						
Per cent of labor force of same age	+8.1	+6.1	+5.2	–2.2	–3.2	–2.7
Rank of age group	1	2	3	1 ^a	3 ^a	2 ^a

Source: Appendixes A and C.

* Ranks for decreases in unemployment are inverted, in order to bring out the fact that the smallest decline in unemployment during 1930–1950 is the converse of the greatest increase and has the same effect of discouraging older men from staying in the labor force.

men of three age groups, 35–44, 45–54, and 55–64, unemployment was the least for those 35–44 in 1930, 1940, and 1950 and showed the smallest increase from 1930 to 1940 and from 1930 to 1950; and this age classification had the smallest decline in labor force participation over the 20-year period from 1930 to 1950. Men 45–54 showed a higher unemployment level for all three census dates, a sharper rise in the rate of unemployment between 1930 and 1940, and a steeper drop in labor force participation. And the third group—men 55–64—suffered the

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most unemployment between 1930 and 1940, the greatest reduction in activity in the labor force in both of the two periods between 1930 and 1940, and 1930 and 1950. Men aged 65 or over withdrew from the labor force more slowly during times when unemployment was low, as in the 1920's and the 1940's, and faster when it was very severe. When unemployment of all persons rose from 6 per cent of the whole labor force in 1930 to 15 per cent in 1940, the ratio of elderly male workers to all male workers in the United States fell (although in view of the aging of the population it should have expanded).

There also seemed to be a clear association between reduction in the labor force of elderly males and unemployment of all males⁴³ among different industries (Table 34). Where unemployment of workers of all ages was extensive, as in construction, amusement, and mining, the proportion of elderly employees dropped sharply; where unemployment was on a minor scale, as in professional service, agriculture, finance, insurance, and real estate, there was only a small reduction, or even an increase, in the proportion of elderly workers.⁴⁴ All these findings are consistent with the possibility that elderly men left the labor force because they were discouraged by the lack of jobs.

Nevertheless, unemployment does not offer a complete explanation for the decline. "Full employment" conditions prevailed in Great Britain and Canada in 1951, in New Zealand in 1951, and in Germany in 1939. Employment in the United States in 1950, though not full, was not appreciably lower than in 1930. Yet participation of men aged 65 and older has in recent years been far below that in earlier years, even those of considerable unemployment, such as 1921 or 1931 in Britain and Canada, or 1936 in New Zealand. No doubt depressed conditions are responsible for a temporary exodus of the older worker. But for the powerful long-run forces responsible for their permanent withdrawal we must look elsewhere.

Education

Although at a given time the labor force participation of men in the primary working ages does not seem influenced by earnings, Chart 18 reveals that it has varied with the amount of education completed. This was true in both 1940 and 1950—years for which data by age,

⁴³ A. J. Jaffe and Charles D. Stewart found a tendency for major occupational groups with high unemployment rates to have high retirement rates for the year 1940 (*Manpower Resources and Utilization*, Wiley, 1951, pp. 231-232).

⁴⁴ Government, which had next to the least unemployment, was an apparent exception, in that it had the sharpest relative drop in the ratio of elderly to all employees. This drop occurred, not because of any net exodus of elderly persons, but because the expansion of government service during the 1930's naturally resulted in the hiring of more younger than older workers.

TABLE 34

Outflow of Men 65 and Older from Labor Force and Unemployment of All Males, by Industry, United States, 1930-1940

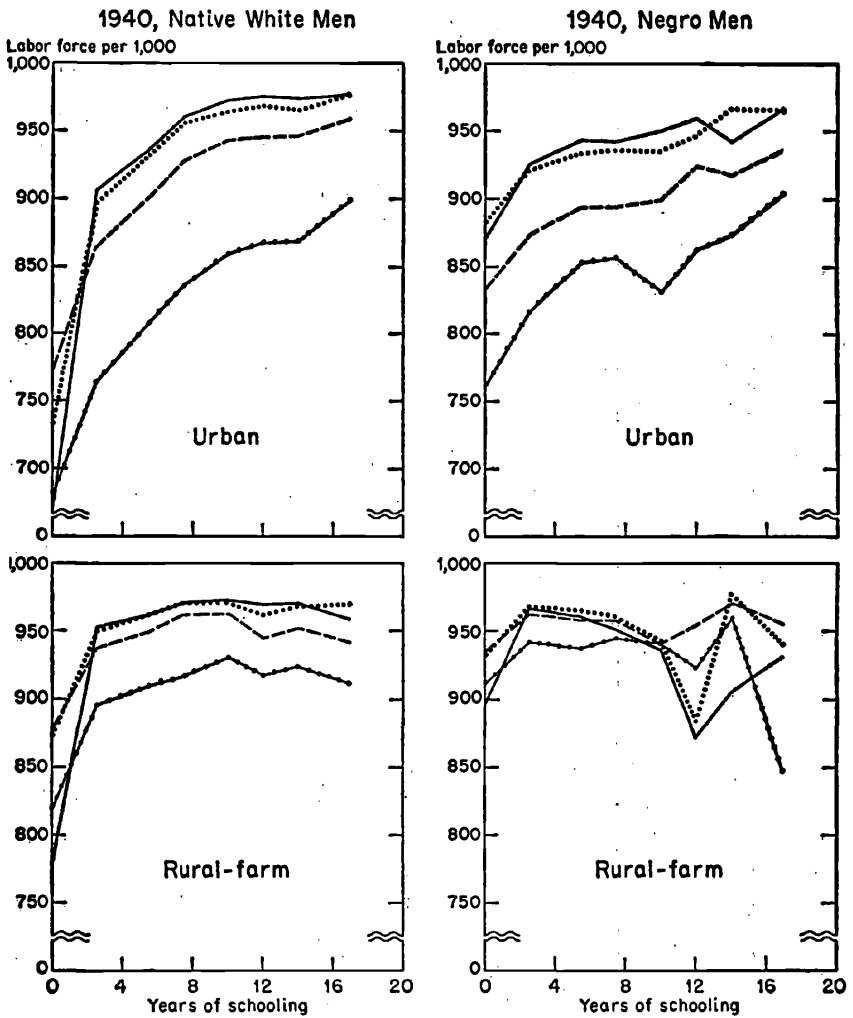
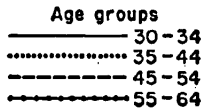
	Males Over 65 as Per Cent of All Males in Industry 1930 (1)	(2)	Outflow (Col. 1 - Col. 2) (3)	Ratio of Outflow (Col. 3 ÷ Col. 1) (4)	Per Cent of Male Labor Force Unemployed 1930 (5)	(6)	Average Per Cent of Male Labor Force Unemployed, 1930-1940 (7)	
Government	5.6	3.6	2.0	.36	2.4	3.0	2.7	
"Not reported"	6.8	4.7	2.1	.31	25.6	51.4	38.5	
Construction	5.3	4.4	0.9	.17	15.5	25.8	20.7	
Amusement and recreation	3.2	2.7	0.5	.16	7.3	14.1	10.7	
Manufacturing	3.3	2.8	0.5	.15	6.6	7.8	7.2	
Mining	2.6	2.3	0.3	.12	7.8	12.6	10.2	
Trade, wholesale and retail	4.1	3.7	0.4	.10	3.7	7.2	5.5	
Transportation, communication, public utilities	3.0	2.8	0.2	.07	5.0	7.1	6.1	
Professional and related services	7.3	7.1	0.2	.03	1.4	3.0	2.2	
Agriculture, forestry and fishing	8.0	8.3	-0.3	-.04	1.3	4.4	2.9	
Personal service	4.4	5.4	-1.0	-.23	5.3	8.5	6.9	
Finance, insurance, real estate	5.6	6.9	-1.3	-.23	2.1	4.9	3.5	
Coefficients of rank correlation $P_r = 1 - \left(\frac{6 \sum d^2}{n^3 - n} \right)$								
Including government						0.57	0.35	0.45
Excluding government						0.80	0.75	0.81
Confidence limits (Z test)								
Including government						insignificant		
Excluding government						0.945	0.932	0.949
						0.376	0.282	0.406

Source: Censuses of the United States: 1930, *Unemployment*, Vol. I, Tables 9 and 10, and *Population*, Vol. IV, *Occupations, by States*, Table 21; 1940, *Population*, Vol. III, *The Labor Force*, Part I, Tables 78 and 80.

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CHART 18

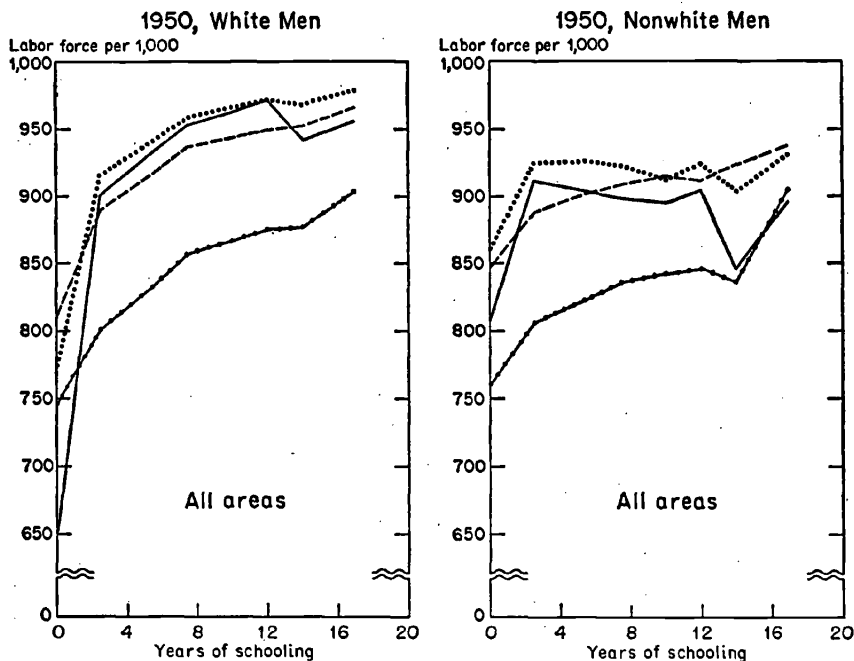
Labor Force of White and Colored Men and Years of Schooling:
by Age Group, United States, for Urban and Rural Areas,
1940, and All Areas, 1950.



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CHART 18, concluded

Age groups
 — 30-34
 35-44
 - - - 45-54
 = = = 55-64



Education data are for years of school completed—0, 1-4, 5-7, 8, 9-11, 12, 13-15, 16 and over—plotted at midpoint for the grouped years, except 16 and over.

Source: *Census of Population: 1940, Educational Attainment by Economic Characteristics and Marital Status*, pp. 76-85; 1950: *Education*, PE No. 5D, pp. 73-76.

color, residence, and schooling have been made available.⁴⁵ The association with education was not so pronounced as that for women (Chapter 6), but it did show unmistakably that the fewer years of formal education a man had below a certain point, the less likely he was to be in the labor market. Among males in rural-farm areas the association was not strong; there it was significant only for those with no schooling at all. It was also weaker among Negroes; for those in rural-farm areas who had a high school education, the rate of participation in the labor force tended to be lower than for those with either more or less schooling.⁴⁶ The association was strongest among native whites in urban areas, where men with less than eighth grade attainment were in the labor force in much smaller proportions, the fewer

⁴⁵ The analysis begins with men aged 30 to 34, since many men under 30 are still in school, and therefore less likely to be in the labor force.

⁴⁶ There was a strong association for farm Negroes who were college graduates, but there must have been too few of these to indicate a genuine tendency.

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years of school they had completed. For men 55-64 the reduction was extra sharp if they had not reached the college graduate level; indeed, their participation seemed to be more adversely affected by lack of education than by advancing age.

This same relationship was also reflected in actual employment. Within any given group of the same amount of education, the employment of men aged 55-64 was about 10 per cent under that of men aged 30-34 or 35-44; but, within any given age group, the employment of men with no schooling at all was about 40 per cent under that of college graduates. Only about half of the urban native whites with no education had jobs, whereas nine out of ten college graduates were employed. It is rather clear that many men left the labor force in 1940 because they could not get work, and that both their idleness and their withdrawal from the labor force were correlated more with lack of education than with advancing age.

Why should employers refuse to hire workers with substandard education? If poor education means lower productivity, why do not employers hire the poorly educated and pay them at proportionately lower rates, so that their efficiency per dollar of payroll would be as great as that of high school or college graduates? There is, of course, no way to prove empirically that this does not take place. Certainly well educated men command higher wages and salaries than those with little or no schooling, and earnings are more closely associated with amount of education than with age.⁴⁷ Since the relation between schooling and efficiency cannot be measured—nor can one prove which is cause and which is effect—the data cannot disclose whether poorly educated workers are underpaid or overpaid in relation to their output.

But in a land where elementary and high school education is almost free in urban areas, illiteracy or a negligible amount of schooling often reflects, at least for native whites, a lack of intelligence and of emotional stability.⁴⁸ And it is easy to understand why employers would be reluctant to hire very inefficient workers even at proportionate remuneration.

Moreover, any thoroughgoing attempt to pay the inefficient in strict proportion to their worth would violate minimum-wage laws and outrage the public. An employer will therefore normally find it more humane or less embarrassing to abstain from hiring substandard workers.⁴⁹ These people eventually become discouraged and cease to participate.

⁴⁷ *Census of Population, 1940, Educational Attainment by Economic Characteristics and Marital Status*, pp. 147 ff.

⁴⁸ Thus mental or physical defects, which happen to be correlated with lack of education, may bar many uneducated men from jobs, without employers being aware of, or immediately concerned with the lack-of-schooling factor.

⁴⁹ It must be emphasized that the concept of "substandard" used here is entirely

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The effects would, of course, vary according to occupation and worker classifications. Agricultural workers could manage to stay in the labor force until a later age because the farm wage scale is flexible and many farm jobs involve little skill, liability, or supervision. So also might Negroes—even in urban areas—because they have been, for the most part, in unskilled occupations and, in the past, in low-wage jobs.

Over time, the amount of formal education possessed by elderly men has been rising more slowly than that of men and women below middle age: equivalent full-time years of education completed by men 65 and older has fallen from almost four-fifths of that completed by the young at the turn of the century, to about two-fifths in 1950. The elderly male has indeed fallen far behind in the ability to compete in the labor market if formal schooling is any index.

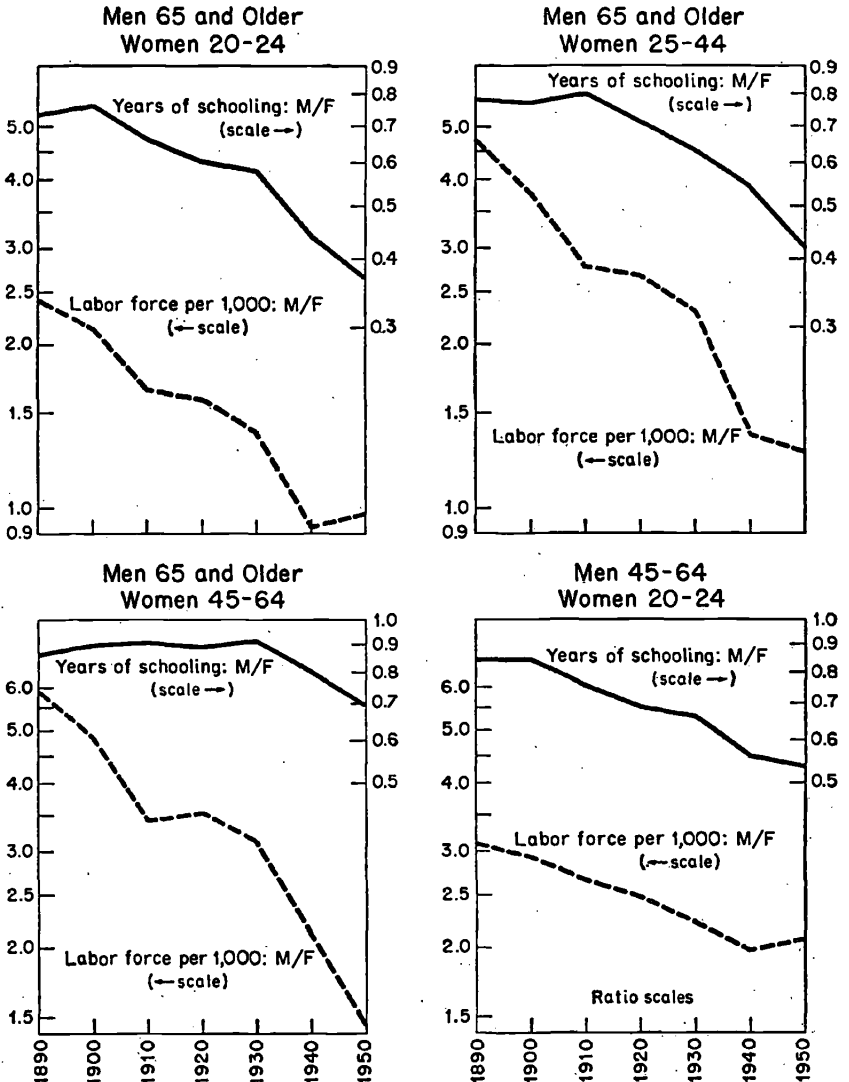
This was true when the comparison was made not only with women 20–24, but also with women 25–44. And in both cases the ratio of labor force participation of men 65 and older to that of younger women fell accordingly (Chart 19). In fact, there was some sympathy of detailed movement. The ratios of both education and labor force participation of elderly men to education and participation of women 20–24 fell a bit less rapidly during 1910–1930 than in the decades just preceding and following. Their brief opposite movement during 1940–1950 can be explained on the ground that the 1930's had an especially depressing effect on the labor force of older men, and need not rule out a long-run association. The two sets of ratios moved very similarly in the case of men 45–64 and women 20–24 during 1900–1940, if not in the decades just before and after. The detailed movements were not very close in the ratios of men 65 and older to women 25–44, and over the whole period the labor force ratio fell much more than the ratio of education. The education and labor force of men 65 and older and women 45–64 did not move together at all during the period up to 1930; from 1930 on the labor force ratio fell more than the education ratio. Finally, the outflow of elderly persons from the labor force has been just as heavy in countries where mass education has not forged ahead as it has in the United States. Nevertheless there is sufficient similarity of movement between relative educational attainment and relative labor force participation of older men and younger women to leave us with the feeling that inferior education is a factor, even if it is perhaps only one factor, in the labor force displacement of older men by young and middle-aged women.

relative to economic conditions. Many persons who would be substandard at times when profits were low and prospects dim would be valued employees in years of prosperity and labor shortage.

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CHART 19

Ratios of Male to Female Labor Participation and Ratios of Male to Female Education: for Selected Age Groups, United States, 1890-1950



Source: Labor force, Appendix A. Education: *Census of Population, 1920*, Vol. II, p. 1043; 1940, Vol. IV, Part I, pp. 6-7; 1950, *Education*, PE No. 5B, pp. 73-74; *School Attendance in the United States*, Census Monograph V, pp. 49-51, 113-114, Tables 30-31.
 For method, see Appendix F, the section on Years of Schooling.