

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: The Evolution of Retirement: An American Economic History, 1880-1990

Volume Author/Editor: Dora L. Costa

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-11608-5

Volume URL: <http://www.nber.org/books/cost98-1>

Publication Date: January 1998

Chapter Title: The Older Worker

Chapter Author: Dora L. Costa

Chapter URL: <http://www.nber.org/chapters/c6111>

Chapter pages in book: (p. 85 - 105)

If he got no reward whatever, the artist would go on working just the same; his actual reward, in fact, is often so little that he almost starves. But suppose a garment-worker got nothing for his labor: would he go on working just the same? Can one imagine his submitting voluntarily to hardship and sore want that he might express his soul in 200 more pairs of ladies' pants?

H. L. Mencken (1922)

Occupation plays a crucial role in the retirement decision. Older men employed in physically demanding, unpleasant jobs might prefer to retire rather than take easier but lower-paying and less prestigious jobs. The less physically demanding the job, and the more hours flexibility it provides, the lower the likelihood of retirement. The self-employment occupations, particularly farming, are widely perceived not only as providing greater hours flexibility than wage work but also as having the additional advantage of permitting assistance by family members or hired help. Yet both the farm and the nonfarm self-employment sectors have declined in size since the beginning of the century.

Changes in the structure of industry may also have worsened the employment prospects of older workers. The skill and education mix demanded by employers depends on the production technology within an industry. Older workers who started their careers in growing industries might find themselves in declining industries at the end of their careers. Once these older men are laid off, they face great difficulties finding a new job. Firms might prefer to hire younger workers because they can recoup their training costs over a much longer period, because younger workers are better educated and trained, or simply because they prefer younger workers. Because the average length of an unemployment spell has risen for all workers, older workers, discouraged by their labor market prospects, might retire rather than continue to search for a new job.

In this chapter I investigate whether changing labor markets have worsened the employment prospects of older workers. Do certain occupations, particularly farming, permit workers to remain in the labor force longer? Has a decline in these occupations increased retirement rates? Can rising retirement rates be explained by the increased difficulties faced by unemployed older workers in finding a new job?

5.1 Who Retires?

At the end of the last century the typical workingman older than sixty-four was a farmer. The typical workingman today is a white-collar worker and a very different type of white-collar worker from his counterpart one hundred or even fifty years ago, when most white-collar workers were proprietors or managers of businesses rather than professional or technical workers. Table 5.1 illustrates. Over half of older men were farmers in 1880, but by 1990 only 7 percent were. The elderly labor force employed in a white-collar job grew from one-tenth in 1880 to over half in 1990. The elderly labor force employed in the service sector increased sixfold, from less than 2 percent in 1880 to 13 percent by 1990. The one seemingly constant figure is that for manual occupations, consistently the second most common occupational category. But, even within this occupational grouping, skill and education levels have increased, as evinced by the decline in the percentage of common laborers.

All workers, not just the old, experienced the trends described in table 5.1. However, older workers always have been disproportionately concentrated in farm or manual occupations, while the young have dominated white-collar and service jobs. Within the broad occupational categories used in Table 5.1, older workers have been disproportionately concentrated in certain jobs within the broad occupational categories as well. In 1880, both younger and older crafts workers were shoemakers, but by 1910, when shoemaking had largely become a factory trade, older workers predominated in the older, artisanal tradition. Some jobs, such as those of janitor, guard, or watchman, always have been and still remain old men's jobs, constituting half of all nonhousehold service jobs in 1880, 60 percent in 1940, and 41 percent in 1990. The professional occupa-

Table 5.1 Occupational Distribution of Men Older than 64, 1880–1990

	1880	1910	1940	1970	1990
White collar	9.7	18.3	26.0	41.2	52.4
Professional, technical	3.2	3.8	5.5	11.5	18.9
Managers, officials, proprietors	4.8	9.4	12.2	12.4	14.8
Clerical	.6	2.3	3.5	7.4	7.5
Sales	1.1	2.9	4.7	9.8	11.2
Service	1.5	3.8	8.0	14.7	12.8
Private household	.6	.7	.6	.3	.1
Other service	.9	3.1	7.4	14.4	12.7
Manual (except service)	28.4	29.2	28.7	32.3	26.0
Crafts, supervisors	11.2	12.2	13.4	15.0	10.9
Operatives	4.9	6.7	7.2	11.4	10.1
Laborers (except farm, mine)	12.3	10.3	8.0	5.9	5.0
Farm	60.4	48.7	37.3	11.8	8.8
Farmers, farm managers	54.1	39.0	32.5	8.9	6.8
Farm laborers, supervisors	6.3	9.7	4.8	2.9	2.0

Note: Calculated from the integrated public-use census samples (Ruggles and Sobek 1995).

tions also have always contained older men's jobs: clergyman, physician, or surgeon and, since 1940, lawyer or judge.

Older workers might predominate in certain jobs either because there is little new entry, because workers move into these jobs as they age, or because older workers are less likely to retire from these jobs. The first cause, little new entry, can be disentangled from the last two by arraying census data by cohort. If workers are less likely to retire from certain occupations or move into certain occupations as they age, then, as a cohort ages, the proportion of the cohort employed in those occupations should increase. Tables 5.2, 5.3, 5.4, and 5.5 therefore illustrate the experiences of several cohorts with the four broad occu-

Table 5.2 Percentage of Native-Born Men in Labor Force Who Are Farmers, by Age Group and Cohort

Cohort Aged 25–34 in:	% Farmers at Ages:					Cohort Aged 65–74 in:
	25–34	35–44	45–54	55–64	65–74	
1870		41.3		45.3	42.4	1910
1880	34.9		41.7	39.4	40.9	1920
1900	25.0	27.8	31.1		34.9	1940
1910	21.3	26.8		24.4	25.0	1950
1920	21.1		18.7	16.4	17.4	1960
1930		13.6	12.7	9.4	9.4	1970
1940	9.9	10.0	7.0	5.1	7.7	1980
1950	7.5	5.1	3.4	3.7	5.8	1990

Source: Calculated from the integrated public-use census samples (Ruggles and Sobek 1995).

Note: Missing values indicate unavailability of a public-use census sample. Prior to 1940 the labor force was defined under the gainful definition of the labor force and in 1940 and later under the current definition.

Table 5.3 Percentage of Native-Born Men in Labor Force Who Are Professionals or Proprietors, by Age Group and Cohort

Cohort Aged 25–34 in:	% Professionals/Proprietors at Ages:					Cohort Aged 65–74 in:
	25–34	35–44	45–54	55–64	65–74	
1870		16.6		18.6	19.7	1910
1880	13.8		18.5	20.6	15.8	1920
1900	18.8	24.7	21.1		26.4	1940
1910	22.2	22.2		27.4	28.8	1950
1920	20.4		30.1	31.4	37.1	1960
1930		30.1	32.9	34.5	40.0	1970
1940	27.5	31.8	34.4	36.4	46.4	1980
1950	29.7	36.7	40.1	44.9	53.3	1990

Source: Calculated from the integrated public-use census samples (Ruggles and Sobek 1995).

Note: Missing values indicate unavailability of a public-use census sample. Prior to 1940 the labor force was defined under the gainful definition of the labor force and in 1940 and later under the current definition.

Table 5.4 Percentage of Native-Born Men in Labor Force Who Are Artisans, by Age Group and Cohort

Cohort Aged 25–34 in:	% Artisans at Ages:					Cohort Aged 65–74 in:
	25–34	35–44	45–54	55–64	65–74	
1870		12.6		12.3	11.0	1910
1880	10.9		12.4	12.6	11.3	1920
1900	13.7	15.6	15.6		12.4	1940
1910	14.3	16.2		16.4	14.4	1950
1920	17.3		18.0	19.9	15.3	1960
1930		17.5	20.7	21.8	15.3	1970
1940	13.7	20.6	23.1	22.6	13.2	1980
1950	19.7	23.4	24.1	21.0	11.3	1990

Source: Calculated from the integrated public-use census samples (Ruggles and Sobek 1995).

Note: Missing values indicate unavailability of a public-use census sample. Prior to 1940 the labor force was defined under the gainful definition of the labor force and in 1940 and later under the current definition.

Table 5.5 Percentage of Native-Born Men in Labor Force Who Are Laborers, by Age Group and Cohort

Cohort Aged 25–34 in:	% Laborers at Ages:					Cohort Aged 65–74 in:
	25–34	35–44	45–54	55–64	65–74	
1870		29.6		23.8	27.0	1910
1880	40.4		27.4	27.5	32.0	1920
1900	42.5	31.9	32.1		26.3	1940
1910	42.2	34.8		31.8	31.8	1950
1920	41.2		33.2	32.3	30.2	1960
1930		38.9	33.7	34.4	35.4	1970
1940	49.0	37.7	35.6	35.8	32.6	1980
1950	43.3	34.8	32.5	30.4	29.6	1990

Source: Calculated from the integrated public-use census samples (Ruggles and Sobek 1995).

Note: Missing values indicate unavailability of a public-use census sample. Prior to 1940 the labor force was defined under the gainful definition of the labor force and in 1940 and later under the current definition.

pational categories *farmer, professional or proprietor, artisan, and laborer*, respectively. Consistent with my previous use of these occupational classifications, most white-collar workers are classified as professional or proprietor, and semiskilled, farm, and service-sector laborers are classified as laborers.

Table 5.2 shows that, although farming has always contained a disproportionate number of older men, for most of the twentieth century farmers did not have a high propensity to remain in the labor force. For cohorts aged sixty-five to seventy-four in 1910, 1920, and 1950, the percentage of men in the labor force who were farmers remained virtually unchanged from the preceding ten years. For the cohort that reached age sixty-five to seventy-four in 1940, farm-

ers were somewhat more likely to remain in the labor force, a phenomenon associated with the Great Depression (Schultz 1945, 191–93). Only beginning with the cohort that reached age sixty-five to seventy-four in 1970 do farmers retire later than men in other occupations.

Professionals' and proprietors' propensity to retire has fallen relative to that of artisans or laborers. Beginning with the cohort that reached age sixty-five to seventy-four in 1960, professionals and proprietors started to leave the labor force at later ages relative to men in other occupations. Artisans are the ones who now retire early. Laborers, who used to be disproportionately represented at older ages relative to their numbers at younger ages, no longer are. Perhaps artisans now retire earlier than professionals or proprietors because Social Security benefits replace a larger share of their income or because they now find their jobs less satisfying.

The disproportionate number of laborers observed at older ages in the past arises from nonlaborers becoming laborers at older ages. Tables 5.6 and 5.7,

Table 5.6 **Entry into 1910 Occupational Group, Union Army Veterans, 1900–1910 (restricted to men in the labor force in both 1900 and 1910)**

Occupation in 1900	Occupation in 1910			
	Farmer	Professional/ Proprietor	Artisan	Laborer
Farmer	84.1	5.6	6.2	23.7
Professional/proprietor	6.3	72.9	12.3	21.7
Artisan	3.2	9.4	66.7	3.2
Laborer	6.3	12.2	14.8	42.3

Note: The table indicates the percentage of men within an occupational class in 1910 entering from another occupation between 1900 and 1910. The percentage of new entrants is highlighted in bold.

Table 5.7 **Exit out of 1900 Occupational Group, Union Army Veterans, 1900–1910 (restricted to men in the labor force in both 1900 and 1910)**

Occupation in 1900	Occupation in 1910			
	Farmer	Professional/ Proprietor	Artisan	Laborer
Farmer	86.2	2.4	2.0	9.3
Professional/proprietor	12.8	62.4	8.0	16.8
Artisan	9.5	11.9	64.3	14.3
Laborer	19.5	15.9	14.6	50.0

Note: The table indicates the percentage of men within an occupational class in 1900 who changed occupations by 1910. The percentage of exits is highlighted in bold.

which examine transitions across broad occupational categories between 1900 and 1910, illustrate. New entrants constituted 16, 27, 39, and 58 percent, respectively, of farmers, professionals or proprietors, artisans, and laborers in 1910 (see table 5.6). At a time when retirement incomes were low, men remained in the labor force even if they could do so only by switching to a less physically demanding but lower-paying occupation. This is less likely to happen today. Although a small amount of job switching either at the end of men's careers or after retirement has been observed in recent data (Fuchs 1982; Ruhm 1990), the most common employment pattern, particularly for white males, is lifetime employment. Today only one in six older men works fewer than ten years on any one job (Ruhm 1990), and three-quarters of men who retire from a job switch from full-time work to being out of the labor force (Rust 1990). Of course, even at the beginning of the century occupational change was not for the majority. The percentages of men who were farmers, professionals or proprietors, artisans, or laborers in 1900 and who were still in that occupational class in 1910 were 86, 62, 64, and 50 percent, respectively (see table 5.7).¹

The inclusion of retirement as an occupational category clarifies retirement patterns by different occupational groups at the beginning of the century. Table 5.8 shows that retirement rates were highest among laborers (45 percent), followed by farmers (37 percent) and professionals or proprietors (31 percent), while artisans had the lowest retirement rates (28 percent). Interestingly, it was men within the most physically demanding occupational categories, those of laborer and farmer, who were most likely to retire. When specific jobs were classified by the likely degree of physical exertion that would be required for job performance, there was a tendency for men in poor health to switch to an easier job, but this effect was not statistically significant. Many men continued to labor in physically demanding occupations; only 22 percent of laborers and 27 percent of artisans switched to an easier job. Older men therefore did not commonly move into less physically demanding occupations as an alternative to retirement. Although certain occupations such as janitor and guard or watch-

Table 5.8 Exit out of 1900 Occupational Class, Union Army Veterans 1900–1910 (including retired as an occupational category)

Occupation in 1900	Occupation in 1910				
	Farmer	Professional/ Proprietor	Artisan	Laborer	Retired
Farmer	54.5	1.5	1.3	5.9	36.8
Professional/proprietor	8.8	43.1	5.5	11.6	30.9
Artisan	7.0	8.7	46.1	10.4	27.8
Laborer	10.8	8.1	8.1	27.7	45.3
Retired	12.1	10.5	4.0	8.1	65.3

Note: The table indicates the percentage of men within a occupational class in 1900 who either changed occupations or retired by 1910. The percentage of exits is highlighted in bold.

man have had a disproportionate number of older men within them since 1880, such jobs were relatively few and in 1910 provided employment for at most 2 percent of the male labor force sixty-five years of age or older. These jobs have remained relatively unimportant, providing employment for only 4 percent of the male labor force older than sixty-four in 1990.

Table 5.8 illustrates that 35 percent of men who were retired in 1900 had reentered the labor force by 1910, a reentry rate only slightly higher than the rate of 28 percent observed in recent data among men younger than seventy years of age (Rust 1990). In the past men who reentered the labor force had lower pensions and were younger than those who did not. These men may have found that they could no longer afford to be retired. Wentworth (1945) reported that some Social Security beneficiaries in 1941–42 quit their employment and filed for benefits only to realize that their retirement incomes would be insufficient. Although she cited instances of reentry caused by boredom with retirement, such cases were few. Today, those who reenter the labor force tend to be the most highly educated (Sum and Fogg 1990), suggesting that workers are now motivated by either the high returns to education in today's labor market, job satisfaction, or both.

Ability to continue within an occupation depends not just on physical job requirements but also on hours flexibility and the ability to hire assistants. Hurd and McGarry (1993) found that, among workers today, physical job requirements had only a small influence on prospective retirement, whereas job flexibility had a large effect. Haber and Gratton (1994, 97) cite the recollections of James J. Davis, U.S. secretary of labor in the 1920s, who began his work life as a boy helper "when an aged puddler devised a scheme to enable himself to continue the physically arduous exertion of the trade." Self-employment may provide just such hours flexibility and just such an ability to continue working with the help of apprentices. In the early 1970s the self-employed were significantly more likely to work, partly by reducing their work week to under thirty-five hours (Fuchs 1982). Exactly why wage and salary workers find it harder than the self-employed to reduce their weekly hours is unclear, but the problem might arise from the demands of team production or from firms' needs to minimize payments on fixed costs per worker.

The decline in the self-employed nonfarm labor force from 15 percent in 1910 to 9 percent in 1990 suggests that opportunities for self-employment may now be lower. But, when the data are arrayed by cohort, it becomes evident that only beginning with the cohort that reached age sixty-five to seventy-four in 1960 were the self-employed more likely to remain in the labor force than wage and salary workers (see table 5.9). Carter and Sutch (1996) even argue that, between 1900 and 1910, the nonfarm self-employed had a slightly higher retirement propensity than wage and salary workers. If the hours flexibility provided by self-employment enabled workers to remain in the labor force longer, then this hours flexibility has been a factor only in recent decades. Private pension plans may have changed the retirement patterns of the self-

Table 5.9 Percentage of Native-Born Men in Labor Force Who Are Self-Employed, but Not Farmers, by Age Group and Cohort

Cohort Aged 55–64 in:	% Self-Employed at Ages:		Cohort Aged 65–74 in:
	55–64	65–74	
1910	26.0	26.6	1920
1940	19.5	20.6	1950
1950	16.1	21.5	1960
1960	14.8	21.0	1970
1970	14.1	23.9	1980
1980	14.9	26.1	1990

Source: Calculated from the integrated public-use census samples (Ruggles and Sobek 1995).

Note: Prior to 1940 the labor force was defined under the gainful definition of the labor force and in 1940 and later under the current definition.

employed relative to wage and salary workers because the self-employed today are less likely to be covered by private pension plans. The similar retirement propensities of wage and salary workers and the self-employed suggest that a decline in self-employment opportunities cannot explain the rise of retirement before 1950. That there was no change in self-employment at ages fifty-five to sixty-four after 1950 implies that a decline in self-employment opportunities cannot explain the rise after 1950.

Another way for the elderly to continue working, but to work fewer hours, is to work in part-time or part-year jobs. Modern survey data suggest that older workers would prefer part-time work to early retirement (Kennedy 1980), but, if fixed costs per employer have been increasing, then fewer employers may now be willing to offer part-time or part-year work. Fewer part-year jobs are now available—the percentage of the labor force older than seventeen in part-year work has fallen from 38 percent in 1940 to 30 percent in 1990. But the percentage of the labor force in part-time work has increased from 13 percent in 1940 to 20 percent in 1990, suggesting that more, not fewer, part-time jobs are now available.

Table 5.10 shows that, among the elderly still in the labor force, both part-time employment and part-year employment have been rising. Among employed men age sixty-five to seventy-four in 1940, only 15 percent worked fewer than thirty-five hours per week and only 30 percent fewer than fifty weeks per year, whereas, in 1990, 47 percent worked fewer than thirty-five hours per week and 37 percent fewer than fifty weeks per year. In contrast, among employed men age fifty-five to sixty-four, the proportion employed in a full-year job increased between 1940 and 1990, while the fraction working part-time remained relatively constant. Not only have older men increasingly been leaving the labor force, but, when they remain in the labor force, they have been reducing hours of work as well.

Table 5.10 Percentage of Native-Born Men in the Labor Force Who Are Employed Part-Time and Percentage Who Are Employed for Part of the Year, by Age Group and Cohort

Cohort Aged 55-64 in:	% Employed, by Age:				Cohort Aged 65-74 in:
	Part-Time:		Part Year:		
	55-64	65-74	55-64	65-74	
1930		14.5		29.6	1940
1940	10.9	20.8	32.5	33.0	1950
1950	10.8	30.6	31.4	37.7	1960
1960	10.7	38.0	28.6	40.1	1970
1970	11.3	46.4	22.3	37.2	1980
1980	9.6	48.1	19.5	37.0	1990

Source: Calculated from the integrated public-use census samples (Ruggles and Sobek 1995).

Note: The current definition of the labor force was used. Part-time workers are defined as those working fewer than 35 hours per week. Part-year workers are defined as those working fewer than 50 weeks a year.

Why more older men do not move into part-time employment rather than retire completely, despite their expressed preference for part-time work, is not because these jobs are unavailable; perhaps the reason is that they want part-time work at their old wage and can find jobs only at lower pay. Companies that hire part-time employees report great difficulty recruiting older workers (Belous 1990), perhaps because older workers remaining with the same employer experience an hourly wage loss of 10 percent on becoming part-time workers and those switching employers an hourly wage loss of 30 percent (Jondrow, Brechling, and Marcus 1987).

Although no data are available on part-time work for earlier periods, the opportunities for part-time work among wage and salary workers were probably no better in the first half of the nineteenth century than in the second. The policy of most nineteenth-century firms was to have workers begin and end their day at the same time. Entry and exit were controlled, and penalties were imposed for tardiness (Atack and Bateman 1990).

Tables 5.9 and 5.10 implied that the rise of retirement cannot be attributed to declines in opportunities for self-employment or part-time work, jobs that might enable the elderly to continue in the labor force by reducing hours of work. The fraction of prime-aged males employed in part-time work has been relatively stable since 1940. Prior to 1960 the nonfarm self-employed retired at the same rate as wage and salary workers. But what of self-employment as a farmer? Table 5.2 above, showing that, until 1970, farmers retired at the same rate as nonfarmers, implies that the decline in the size of the agricultural sector does not explain the rise in retirement. Because this finding is contrary to most researchers' perceptions, and because the decline in the size of the agricultural

sector has been such a common explanation for the rise in retirement, the next section discusses farmer retirement in greater detail.

5.2 Farmers and Retirement

Farming is frequently cited as an occupation that provides older workers with great flexibility. It has been thought that farmers remain in the labor force longer because they can continue to operate their farms with the help of family members and hired labor (e.g. Durand 1948; Ransom and Sutch 1986; Taietz, Streib, and Barron 1956; cf. Carter and Sutch 1996). Epstein (1922, 2) wrote that “in an agricultural society men and women are still useful in their old age, and their activities rarely cease before actual senility has set in.” In fact, labor force participation rates of men living on a farm have been consistently higher than those of men not living on a farm. As pointed out in chapter 2, participation rates for men living on a farm were 87 percent in 1880 and 62 percent in 1940, whereas those for nonfarm men were 65 and 37 percent, respectively. High labor force participation rates among farm men are one reason why retirement has traditionally been regarded as an urban phenomenon and why researchers have concluded that the sectoral shift away from agriculture is the most important explanation of the secular decline in labor force participation rates of men prior to World War II (Dorfman 1954; Durand 1948; Mushkin and Berman 1947). Using estimates of participation rates among farm men, Moen (1987, 56) argues that the move away from agriculture accounts for 71 percent of the decline in labor force participation rates of males at least sixty-five years of age between 1900 and 1950.

Comparing the labor force participation rate of men who lived on a farm with that of men who did not can be misleading. Durand (1948, 68–69) first noted that the higher rates of labor force attachment among farm men may be an artifact of the way in which the rural farm population is defined. Because farmers who withdrew from the labor force often moved into a nonfarm residence or ceased to cultivate their land, they were eliminated from the rural farm population. Thus, the only older men who remained in the rural farm population were employed as farmers. However, Durand did not believe that the withdrawal of farmers from a farm and to a nonfarm residence could lead to retirement rates among farmers as high as those among nonfarmers. Dorfman (1954) also noted that there was a substantial tendency for older people to migrate away from the farm on leaving the labor force but added that migration was unlikely to be the entire explanation for the high rate of labor force participation in rural farm communities.

Just how misleading a calculation based on residence rather than past occupation can be is shown in figure 5.1, which compares retirement rates by farm residence and by farm occupation among Union army veterans. When the retirement rates of Union army veterans in 1900 and 1910 are compared by residence, farmers’ retirement rates are at least half those of nonfarmers. However,

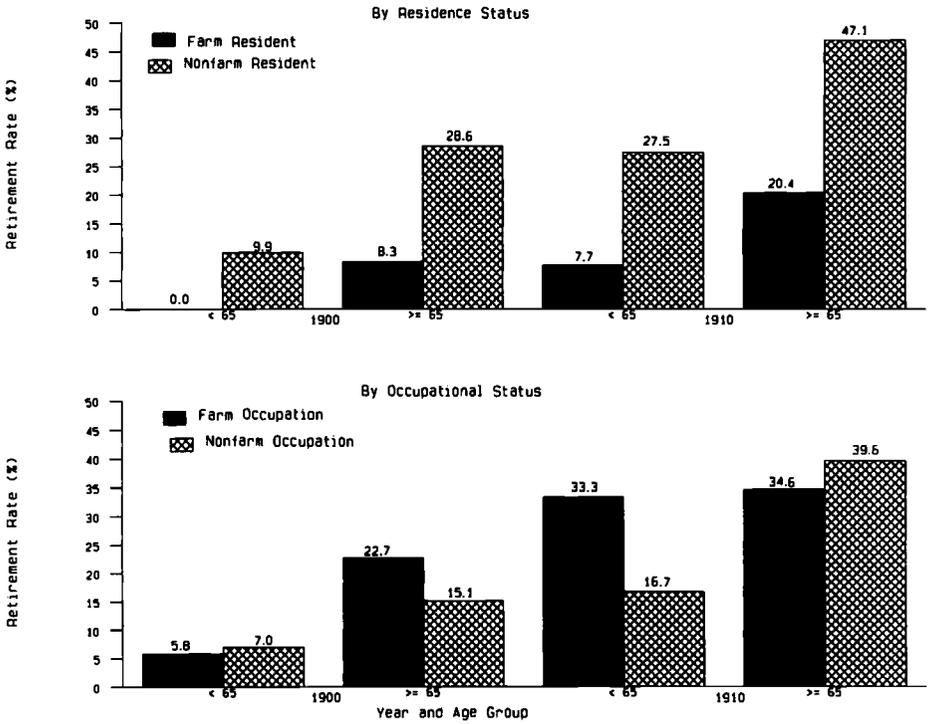


Fig. 5.1 Percentage retired, Union army veterans, by farm residence and farm occupation

Note: Residence is residence during the current census year. Occupation is based on past occupation as given in either pension or census records.

when retirement rates are compared by past occupation, as given in either the pension or the census records, farmer and nonfarmer retirement rates cannot be distinguished statistically. The same phenomenon is observed among non-veterans as well (Costa 1995a). Carter and Sutch's (1996) estimates of new flows into occupations between 1900 and 1910 suggest that the retirement rates of farmers and of others were similar.

Differences in retirement rates need to be examined controlling for socio-economic and demographic characteristics not only because farmers were slightly older but also because, among Union army veterans, they were in slightly worse health and were collecting larger pensions. This was done in chapter 3, and the results for 1900 and 1910 are reproduced in tables 5.11 and 5.12. In 1900 farmers were less likely to be retired than nonfarmers and significantly more likely than professionals and proprietors. In 1910 farmers were more likely to be retired than professionals or proprietors or artisans but were less likely to be retired than laborers.

The immediate explanation for the high retirement rate of farmers is that

Table 5.11 Probit of Determinants of Probability of Retirement, with Retirement Status as the Dependent Variable, 1900 (526 observations, pseudo $R^2 = .22$)

Variable	Mean	Est.	S.E.	$\partial P/\partial x$
Dummy = 1 if retired	.17			
Intercept		-12.14‡	2.24	
Monthly pension	12.94	.05‡	.01	.0090
Age	61.28	.05‡	.01	.0106
Dummy = 1 if does not own home	.34	.35†	.17	.0695
Discharged disability	.25	-1.63‡	.19	-.1229
Health good	.22			
Health fair	.35	.39*	.23	.0765
Health poor	.25	.37*	.25	.0717
Health status unknown	.18	.46*	.26	.0905
Farmer	.46			
Professional or proprietor	.18	-.48†	.24	-.0935
Artisan	.14	-.09	.23	-.0168
Laborer	.22	-.02	.21	-.0046
Servant in house	.02	-.96	.67	-.1891
Boarder in house	.05	-.26	.41	-.0515
4 or more dependents	.14	-.46	.29	-.0895
Married	.85	-.25	.20	-.0486
Foreign born	.10	-.13	.25	-.0249
Illiterate	.06	-.02	.31	-.0031
Lives in East	.21			
Lives in Midwest	.73	.42*	.24	.0828
Lives in other region	.06	-.28	.47	-.0540
Urban county	.37	.41†	.17	.0799
Mean duration of unemployment for manufacturing workers by state	3.62	1.86‡	.63	.3644

Note: The omitted dummies are good health, farmer, and eastern residence. The symbols *, †, and ‡ indicate that the coefficient is significantly different from zero at at least the 10 percent, 5 percent, and 1 percent levels, respectively. $\partial P/\partial x = \beta(1/n) \sum \phi(x'\beta)$, where ϕ is the standard normal density, and $\partial P/\partial x$ is in probability units.

they moved away from the farm on retirement. Eighty-four percent of the retired farmers in the 1900 census would not have been classified as part of the farm sector since they were no longer living on a farm. Among men who were farmers in 1900, 69 percent were living in a house in 1910, 59 percent had moved to a different town, 21 percent to a different county, and 14 percent to a different state. Moves across state lines averaged 1,128 miles and those across county lines, but within a state, fifty-six miles. This pattern of retirement on the part of farmers accompanied by moves, frequently to a nearby town, has been noted before (Bauder and Doerflinger 1967; Bogue 1971; Haber and Gratton 1994; Salamon 1992; Sauer, Bauder, and Biggar 1964). Figure 2.9 above, which plotted estimates of labor force participation rates among men sixty-five years of age by residence, showed that labor force participation rates

Table 5.12 Probit of Determinants of Probability of Retirement, with Retirement Status as the Dependent Variable, 1910 (923 observations, pseudo $R^2 = .16$)

Variable	Mean	Est.	S.E.	$\partial P/\partial x$
Dummy = 1 if retired	.40			
Intercept		-6.42‡	.71	
Monthly pension	16.94	.03‡	.01	.0112
Age	69.19	.08‡	.01	.0246
Dummy = 1 if does not own home	.28	.34‡	.11	.1101
Discharged disability	.18	-.14	.12	-.0458
Health good or fair	.53			
Health poor	.34	.22†	.11	.0703
Health status unknown	.13	-.17	.16	-.0552
Farmer	.49			
Professional or proprietor	.19	-.11	.13	-.0360
Artisan	.14	-.39‡	.14	-.1249
Laborer	.17	.16	.13	.0527
Servant in house	.05	-.87‡	.25	-.2796
Boarder in house	.05	-.16	.21	-.0530
2 or more dependents	.21	-.30‡	.12	-.0976
Married	.78	.12	.12	.0385
Foreign born	.08	.34†	.17	.1114
Illiterate	.05	.14	.22	.0441
Lives in Midwest	.86	.21	.14	.0680
Urban county	.18	-.04	.13	-.0141

Note: The omitted dummies are good or fair health and farmer. The symbols *, †, and ‡ indicate that the coefficient is significantly different from zero at at least the 10 percent, 5 percent, and 1 percent levels, respectively. $\partial P/\partial x = \beta(1/n) \sum \phi(x'\beta)$, where ϕ is the standard normal density, and $\partial P/\partial x$ is in probability units.

were highest among men living on a farm and lowest among rural nonfarm men, suggesting that the rural nonfarm population contained many retired farmers.² Movement off the farm is also evident in the 1900–20 censuses. Among rural men aged fifty-five to sixty-four in 1900 and 1910, 64 and 63 percent, respectively, were living on a farm, but ten years later only 56 and 57 percent of the men in these two cohorts were.

Movement off the farm on retirement explains why past researchers were misled into thinking that the retirement rates of farmers were low, but it does not explain why farmers did not continue to operate the farm with the help of family members and hired labor. Farmers' high retirement rates were not the result of the great physical exertion required by farming. When health was interacted with farm occupation in the regression presented in table 5.11, the coefficient on the resulting variable was insignificant. Coefficients on the interactions of farm occupation with age and pension amount were small and insignificant. One possibility is that, if farmers were wealthier than nonfarmers, then they may have had less need to remain in the labor force. Eighty-nine percent of active farmers owned their own farms in 1900, 93 percent in 1910.³

But, when farmers who left their farms are compared with nonfarmers in either 1900 or 1910, home-ownership rates between retired farmers and retired nonfarmers were not significantly different.⁴ Of course, because farms represented a sizable asset, farmers may still have been wealthier than nonfarmers, holding their wealth in a form other than home ownership on retirement.

Deed and probate records provide direct evidence of farmers' wealth. But success in linking the farmers who retired between 1900 and 1910 to their probate records and their deed records between 1900 and 1910 has been mixed. Only the deed records for twenty men of fifty-five searched have been found. The deeds that were found recorded both sales and purchases. Ten men frequently bought land from and sold it to nonrelatives, and three of these only purchased and never sold land. Seven men transferred land to their children for a nominal sum, one for a discounted price, and one as an outright gift. The remaining man purchased land from his wife for a nominal sum. None of the sales were of the entire farm property, suggesting that outright sales were rare. Only nine of the men have been linked to probate records, and these men held substantial amounts of wealth until their death.

Other researchers have also argued that farmers who retired still possessed farmland. Bogue (1971) finds that, when farmers left the land to retire to county towns, they accepted mortgages for a portion of the sale price of their land. Moen (1994) finds that, in 1860, older men who lived in rural nonfarm households held considerable amounts of real estate wealth and suggests that that is because retired farmers still possessed farmland. What farmers did with their land on retirement depended on their ethnicity.

Native-born or Yankee farmers were the most likely to retire and liquidate the farm, either renting it for a while or selling it to a non-family member (Conzen 1985, 269, 283). In these cases retirement seldom occurred before age sixty-five (Salamon 1992). The number of farmers who sold their property probably increased during the nineteenth century. In Bucks County, Pennsylvania, the proportion of all testators who passed their farm or other business to their heirs was 70 percent in the 1790s but only 30 percent in the 1890s (Haber and Gratton 1994, 32). Like Yankees, Danish farmers in Wisconsin also sold the farm, moving to a nearby town (Pedersen 1950, 59).

In contrast, German families commonly transferred land to their children through *inter vivos* transfers when the household head was around age fifty-five, with the aging parents establishing new households (Conzen 1985, 272–79; Friedberger 1983; Salamon 1992). This pattern appears to have persisted at least until the 1940s. Parsons and Waples (1945) examined a low-tenancy area of Wisconsin around 1940 and found that a frequently employed method for retaining the farm in the family was for parents aged fifty-five to sixty-five to transfer the farm to a son about twenty-seven years of age. The transfer might be accompanied by a mortgage, which gave the parents an income and was automatically canceled on their deaths. The parents might live in town on the interest from the mortgage, or the children might care for the

parents on the farm, without any kind of formal agreement. Although Parsons and Waples did not examine the living arrangements of the retired farmer by ethnicity, Pederson's (1950) work on Wisconsin suggests that farmers who remained in the farm household were more likely to be Poles rather than Germans.

Union army veterans who retired from farming and transferred land to their children rarely moved in with their children. Only one of the seven men who transferred land to children lived with his daughter and her family, and he moved out on remarrying. The average distance of within-county moves suggests that contact between children who received land and parents was limited. Land does not appear to have been exchanged for children's care within the same household. In fact, for the country as a whole, when retired farmers moved to nearby towns, they set up households independent of those of their children. In 1910, 79 percent of retired men sixty-five years of age or older headed their own nonfarm households in rural areas, compared to 26 percent of men living on a farm and 64 percent of men living in an urban area. Among those who were household heads only 40 percent of men in rural, nonfarm households had a child living with them, compared to 60 percent of men living on a farm and 56 percent of men in urban areas.⁵

In 1900 and 1910 farmers' retirement may have been enhanced by the unusually high appreciation of real estate, livestock, and other farm property that occurred during the years 1895–15.⁶ Farmers' retirement was sensitive to wealth. Parsons (1986) finds that, from 1930 to 1950, the labor force participation of the aged within the agricultural sector was significantly lower in wealthy than in poorer farm states. In 1910, labor force participation rates of older men were significantly lower in wealthy farm counties.⁷ A \$10,000 increase in the average value of a farm in 1910 increased the average county retirement rate of 0.60 by 0.07. Farmers retiring after 1915 may have begun to change their retirement behavior. The Danish farmers in Wisconsin studied by Pederson (1950) adopted a system of gradual retirement in response to the agricultural depression of the 1920s, renting or selling land in parcels until they were left with only a few acres for subsistence farming. In response to the Great Depression almost 110,000 more farm operators over fifty-five years of age had delayed retirement as of 1940 than did farm operators in the 1920s (Schultz 1945, 191–93). Nonetheless, as table 5.2 above showed, even when agriculture was not in its golden years high retirement rates among farmers were common.

Although farmers had the means to retire, they may not have retired had it not been for the declining importance of agriculture. The proportion of the labor force employed in agriculture was falling throughout the twentieth century. From 1900 to 1910, the fraction of men in the labor force who were farmers fell across all age groups by 12–15 percent. In Union states, the proportion declined by 15–17 percent. For older farmers, with few skills outside the farm sector, retirement may have been a better option than reemployment

in the manufacturing sector. Table 5.6 above showed that, although farmers rarely changed occupations, when they did, they experienced downward occupational mobility, becoming laborers. Retirement may have been preferred to downward mobility. But, because table 5.2 showed that the retirement rates of farmers were not rising relative to those of nonfarmers prior to 1960, a declining agricultural sector cannot explain the increase in retirement rates before 1960.

5.3 Displaced Workers

The previous sections demonstrated that, by replacing farming and self-employment artisanal occupations with factory production and office work, technological change did not destroy the only types of jobs the elderly could perform and thereby condemn them to a miserable retirement. Technological change did, however, increase the probability of retirement by displacing workers from their current jobs. For example, the Linotype machine turned the printing industry from a classic craft in which type was set by hand in thousands of small shops into an industry that required relatively less skill but greater speed. Among machinists, the increased division of labor made broadly based training unnecessary, leaving displaced workers with skills that could not easily be transferred across industries (Graebner 1980, 21–24). Older workers were placed at an additional disadvantage as employers turned to high schools as a source for job training. Epstein (1922, 4–5) wrote,

The problem facing the aged today is largely the creation of the modern machine industry with its components of specialization, speed, and strain. It is a result of the elimination of large numbers of workers as soon as they are unable to keep up fully with the demands of modern methods of production. The introduction of new inventions and more specialized machinery, inevitable in the evolutionary process, while resulting in an ultimate good always involves the replacing of men, which in the case of the aged, has an absolutely harmful effect, as it leaves them destitute. For, in addition to preventing their continuity in regular work, it precludes also their adaptability to newer processes of work.

The older a worker was when he became unemployed, the lower his probability of leaving unemployment, and the higher his probability of retiring (Lee 1996; Margo 1993). Firms might be reluctant to hire older workers. Older workers are more likely to be concentrated in declining industries, and their skills may not be readily transferred to new industries. Older workers might therefore prefer to retire rather than take a new job at reduced pay or migrate to a new region with better job opportunities. Thus, an older worker's probability of retiring is especially likely to be sensitive to local labor market conditions. Among Union army veterans, the higher the mean months of unemployment for manufacturing workers within the state, the more likely a veteran was to retire (see table 5.11 above). An increase of a week in the mean months of

unemployment within a state (less than a standard deviation increase) would have raised his probability of retirement by 0.09, an amount equivalent to the effect of a \$10.00 increase in pension amount.

Survey evidence suggests that job loss should be a less important determinant of retirement now than it was in the past. Over half of retired men aged sixty-five or older in 1941 and 1942 cited being laid off—whether because of mandatory retirement, job discrimination, or other company reasons—as their reason for retirement (Wentworth 1945), whereas in 1951 only 46 percent did so. By 1963 the figure was down to 39 percent and by 1982 to 20 percent (Palmore 1964; Reno and Grad 1985). That unemployment now has a lessened effect on retirement can be seen in table 5.13, which reports the effect of mean months of unemployment within a state on men's probability of being retired in both 1900 and in 1980, controlling for age, race, marital status, foreign birth, and region.⁸ Mean months of unemployment within state of residence had a substantial effect on the retirement probability of men older than sixty-four in 1900 but a much smaller one in 1980. In terms of elasticities, the elasticity of retirement with respect to months of unemployment was 1.18 in 1900 but only 0.32 in 1980. Because so few men older than sixty-four are now still in the labor market, those who are left are likely to be the highly motivated. They are also more likely to be white-collar workers and therefore less affected by cyclic downturns in the economy.

It is not just those older than sixty-four who retire when faced with job loss. Both at the beginning of the century and today lengthy spells of unemployment

Table 5.13 Effect of Mean Duration of Unemployment within State of Residence on Retirement Probabilities, Men Aged 50–65 and 65 and over, 1900 and 1980

	Age 65+		Age 50–64	
	1900	1980	1900	1980
Probability retired	.3051	.7223	.0597	.1750
Mean months of unemployment for manufacturing workers by state	3.5990	2.9349	3.5923	2.9401
Probit coefficient	.3946	.2505	.0583	.2460
Standard error of coefficient	.2125	.0212	.1898	.0188
Probit derivative	.0997	.0779	.0066	.0576
Elasticity of retirement with respect to mean months of unemployment	1.1772	.3171	.3971	.9677

Note: Estimated from a probit regression where the dependent variable was equal to one if the individual was out of the labor force and 0 otherwise and the independent variables were mean months of unemployment for manufacturing workers by state, age, marital status, race, foreign birth, extent of urbanization, and region of residence (New England, South Atlantic, East North Central, West North Central, South, Border, Mountain, and West).

raise the chances of early retirement among workers age fifty to sixty-four (e.g., Diamond and Hausman 1984; Lee 1996; Margo 1993). But fifty- to sixty-four-year-old men today are far more likely to retire when faced with unemployment than their counterparts one hundred years ago. In 1900 the elasticity of retirement with respect to average months of unemployment within a state was 0.40 among men in this age group (see table 5.13). In contrast, in 1980 the elasticity with respect to months of unemployment was 0.97. Because men in 1980 now have the means to retire, they may prefer to do so rather than change industries, work at reduced pay, or migrate to a different region. Workers in 1900 may simply not have had the means to choose retirement over a lower-paying job or a job in another region. Union army veterans did, which may explain why the elasticity of retirement with respect to months of unemployment within state of residence was higher for them than for the general population.⁹

Although mean months of unemployment experienced by workers who were unemployed in the previous year was lower in 1980 than in 1900, average unemployment rates have increased over time. The decade average for unemployment was 4 percent from 1900 to 1910, 5 percent from the 1910s to the 1920s and from the 1940s to the 1960s, 6 percent in the 1970s, and 7 percent in the 1980s (Lebergott 1964, 189; and calculated from Series 631 in U.S. Bureau of the Census 1991). Widespread seasonality at the beginning of the century meant that workers in the past faced a 37 percent greater chance of becoming unemployed than their counterparts in the 1970s, but their probability of leaving unemployment once they became unemployed was 32 percent higher and, if they were sixty years of age or older, 48 percent higher. Decreases in the probability of unemployed workers leaving unemployment have increased the average unemployment spell from around four months to five (Margo 1993, 1990).

An increase of 25 percent in the average unemployment spell implies that total months of unemployment within a year has increased by at most 25 percent.¹⁰ This, in turn, implies that older men's probability of retiring rose by approximately 33 percent and therefore explains up to 23 percent of the increase in retirement rates among men older than sixty-four since 1900. It implies that the retirement probability of a fifty- to sixty-four-year-old man rose by 11 percent and therefore explains up to 5 percent of the increase in retirement rates among this group.

Men who became unemployed could not, however, have retired unless they felt that they could afford to do so, whether because they received modest old-age pensions, charity, or contributions from children. Wentworth (1945, 19) cites cases of men who retired of their own accord in order to avoid unemployment: "Mr. S worked as a dishwasher, but his work was not steady and he felt he would be better off receiving old age assistance and old age insurance benefits, so he quit his job. Mr. S believes that he could do light work, but he has not tried to get any." Those who found that their retirement income did not

Table 5.14 Mean Months of Unemployment and Percentage Unemployed 6 Months or More among Nonfarm Union Army Veterans in 1900

	Monthly Pension Amount	
	≤ \$12	> \$12
Mean months unemployment	1.9	2.6
Good health	1.8	2.5
Poor health	2.0	2.7
% unemployed 6 months or more	16.1	24.6
Good health	15.0	22.7
Poor health	17.5	26.5

Note: The first column was adjusted to have the same age distribution as the second. All men with a BMI between 22 and 28 are considered to be in good health.

meet their needs, however modest, returned to the labor force, often on a part-time basis to ensure that their benefits would not be cut.

Factors that affect the length of unemployment spells might also indirectly affect retirement rates. These factors do not include changes in the industrial distribution, which has had a minimal effect on unemployment duration (Margo 1990), but do include rising incomes and unemployment insurance, both of which enable workers to reject the first job that becomes available. Once unemployed for a long period of time workers might develop a taste for leisure, might find that their skills had deteriorated, or might find that employers would be less willing to hire them because they had been unemployed for such a long period of time. These workers might then retire, particularly if they were older. Secularly rising incomes could therefore have had both a direct effect on the probability of retirement and an indirect effect by lengthening the duration of unemployment.

Unemployment patterns among men today and among Union army veterans suggest that the secular rise in incomes increased the length of unemployment spells. Today unemployment benefits increase the duration of unemployment by reducing exit from unemployment (e.g., Meyer 1990). Table 5.14 shows that nonfarm Union army veterans receiving higher pensions experienced more unemployment in 1900, even controlling for health.¹¹ If unemployment benefits and Union army pensions increased the duration of unemployment, then secularly rising family incomes probably had the same effect, thereby contributing to the increase in retirement rates among older men.

5.4 Summary

In this chapter I have investigated whether changes in labor markets such as the increased duration of unemployment spells, declines in the farm and non-farm self-employment sectors, and fewer opportunities for part-time work have

worsened the labor market prospects of older workers. Only the increased duration of unemployment spells accounted for some of the increase in retirement rates since 1900, but the unemployed would not have been able to retire unless they had some source of income. In addition, the increased duration of unemployment spells could in turn be explained by secularly rising incomes, suggesting that secularly rising incomes indirectly increase retirement rates by lengthening the duration of unemployment. Declines in part-time work, non-farm self-employment, and farming could not explain the rise of retirement. Opportunities for part-time work have not worsened, and an increasing proportion of the older workers who remain in the labor force are part-time workers. Although opportunities for self-employment and for employment in the farm sector have declined, low retirement rates among the self-employed relative to wage and salary workers and among farmers relative to nonfarmers are modern phenomena. In the past farmers retired at the same rate as nonfarmers and the self-employed at the same rate as wage and salary workers. Any hours flexibility offered by self-employment influences retirement only in recent times, suggesting that differences in the retirement wealth of the self-employed and of wage and salary workers provide a more likely explanation for the higher propensity of the self-employed to remain in the labor force.

Notes

1. This is a slight overestimate of the true degree of persistence within an occupational class. Men with high pensions were more likely to remain within the same occupation than men with low pensions, but the effect of pensions on occupational change was not large.

2. Moen (1994) makes a similar point on the basis of slightly different estimates.

3. Unfortunately, it is not possible to obtain information on farmers' wealth. The schedules of the Census of Agriculture for the year 1900 were lost. Linkage rates to earlier schedules have proved to be too low to obtain a viable sample.

4. Among men who were farmers in 1900 and had retired by 1910, 74 percent owned their homes in 1910, compared to 76 percent of nonfarmers. Among retirees in 1900, 80 percent of the nonfarmers owned their homes, compared to 74 percent of farmers. While significantly more of the farmers owned their homes free of mortgage in 1900, the difference in 1910 between farmer and nonfarmer mortgage status is insignificant.

5. Calculated from the integrated 1910 census sample (Ruggles and Sobek 1995).

6. Wages of farm laborers relative to industrial workers rose 17 percent (Schultz 1945).

7. County labor force participation rates were calculated from the 1910 public-use census and linked to county-level information on the farm sector from aggregate census statistics.

8. 1900 is compared with 1980 because, in 1980, individuals were asked weeks of unemployment in the past year, thus enabling me to construct a measure of mean months of unemployment comparable to the 1900 measure. Mean months of unemployment is estimated for manufacturing workers to ensure comparability with the 1900

estimates, but the results for 1980 remain unchanged if the figure for mean months of unemployment among all workers is used instead.

9. The difference in elasticities between the national sample and Union army veterans is also partially accounted for by region of residence.

10. Total months of unemployment within a year are simply the sum of all unemployment spells within a year. Because spells that have already begun before the beginning of the year or that continue until the end of year are censored, this will be an upper-bound estimate.

11. Additional controls for socioeconomic and demographic characteristics, a measure of seasonality within occupation, and region of residence did not change the results. (Poisson regressions where the dependent variable was months of unemployment and probit equations where the dependent variable was unemployment of six months or more were run.)