LIVING ARRANGEMENTS AND WELL-BEING OF OLDER PERSONS IN THE PAST

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INTRODUCTION

Analysis of long-run changes in the living arrangements and economic well-being of the aged is limited by the lack of consistent data sources across time and space. Some fragmentary evidence on the living arrangements of the aged in several European and North American countries before the mid-twentieth century is summarized in table 1. The numbers should be interpreted cautiously. The earliest estimates are especially suspect, since we generally lack information about the enumeration procedures or completeness of the surviving pre-nineteenth century listings of inhabitants. Even in the nineteenth century, there was significant variation in census concepts and definitions among countries and across time (Ruggles and Brower, forthcoming). Moreover, the processing of the existing historical data has not followed standardized procedures from study to study, and we have little information of the representativeness of the local studies. Therefore, it would be premature to make too much of the apparent trends and differences shown in table 1. Despite all these qualifications, however, we can be confident that prior to the twentieth century most elderly persons in Europe and North America resided with their children and that residing alone was exceedingly rare.

Today, the great majority of the aged populations of North America and Europe reside alone or with only their spouse. Moreover, recent studies suggest that the percentage of the aged who live alone has also begun to rise in many Asian and Latin American countries (Hermalin and Ofstedal, 1996; Uhlenberg, 1996; Martin, 1989; DeVos, 1995). Taken as a whole, the evidence suggests that the shift towards independent residence of the aged is a worldwide phenomenon.

According to the consensus of scholarly opinion, the simplification of the living arrangements of the aged during the twentieth century has resulted primarily from an increase in the resources of the aged, which has enabled increasing numbers of elderly to afford independent living. The author's analysis suggests the opposite: he argues that the decline of the multigenerational family occurred mainly because of increasing opportunities for the young and declining parental control over their children.

(TABLE 1 HERE)

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Eventually, the author intends to test this interpretation for several different countries, but at present his analysis is limited to the United States. Only for the United States is there a continuous series of high-quality compatible data on the living arrangements and economic well-being of the aged over the very long run. In the conclusion, there is a description of a new data project that will eventually allow similar analysis for a variety of other countries.

Data

The present study is based on the Integrated Public Use Microdata Series (IPUMS).[1] IPUMS is a coherent national database describing the characteristics of 55 million Americans in 13 census years, spanning the period from 1850 through 1990. It combines census microdata files produced by the United States Census Bureau for the period since 1960 with new historical census files produced at the University of Minnesota and elsewhere. By putting the samples in the same format, imposing consistent variable coding, and carefully documenting changes in variables over time, IPUMS is designed to facilitate the use of the census samples as a time-series. IPUMS allows us to circumvent most of the incompatibilities and errors in published census tabulations and to extend the series on household and family composition backwards in time for 150 years.

The most important innovation of IPUMS, for the present purpose, is a set of consistently constructed family interrelationship variables for all years. These variables identify the location within the household of each individual's spouse, mother and father. The family interrelationship pointers provide the essential building blocks to construct virtually any standard measures of household composition. Because the family interrelationship variables were designed to be as compatible as possible across census years, the resulting measures of household and family composition are far more useful for the study of long-run change than are any of the tabulations generated by the Census Bureau.

Thousands of scholarly books and articles have been written on the family. Most of these works make implicit or explicit assumptions about long-term changes in family composition. However, there is remarkably little research that makes consistent comparisons of family composition over the very long run, because until recently most census statistics on family composition began in 1960.[2] During the 1970s and 1980s, historians carried out studies of family composition limited to particular nineteenth-century communities, but the analyses were not, in general, compatible with modern census statistics. Thus, our understanding of long-run trends in American family composition has been based on a little knowledge leavened with a lot of speculation. Now, for the first time, we have the tools to measure changes in American family composition in a consistent fashion over a very long span of time. This new information forces us to rethink many of our ideas about the sources of change in the family.

Overview

The living arrangements of the aged in the United States shifted dramatically during the past 150 years. The key changes are summarized in figure I. In the mid-nineteenth century, about 70 per cent of persons aged 65 or older lived with their children or children-in-law. In addition, about a tenth of the elderly lived with other relatives—mainly grandchildren, siblings, nephews and nieces. Another tenth lived with non-relatives; most of these were boarders, but some were household heads who kept boarders or servants. Only 11 per cent of the elderly in 1850 lived alone or with only their spouses, and only 0.7 per cent lived in institutions such as almshouses and homes for the aged.

(FIGURE I HERE)

After 1860, residence with children began to decline. Increasingly, the elderly began to live alone, with their spouses only, or in old-age homes. The trend was gradual until 1920, but then began to accelerate. The decline in residence with children was most rapid during the period from 1940 to 1980, when more than half the total change took place. By 1990, less than 15 per cent of the aged lived with their children, while 6.8 per cent lived in institutions and almost 70 per cent lived alone or with their spouses only.

The timing of change in the living arrangements of the elderly was not greatly influenced by sex or marital status. Among whites, widows, widowers and married couples all lived mainly with children in the nineteenth century, as shown in figure II. Widows were slightly more likely to reside with children than were widowers, but the difference was not great and the shift to residence alone or in institutions during the twentieth century was common to both. Elderly blacks, however, shown in figure III, were considerably less likely than were whites to reside with their children in the nineteenth century. This was particularly true for unmarried black men, fewer than 50 per cent of whom lived with their children.

(FIGURE II HERE)

(FIGURE III HERE)

Among the 30 per cent of the elderly who lived without children in 1860, about a third had children living next door.[3] Thus, 80 per cent of the elderly resided either with children or in an adjacent dwelling. The high percentage of elderly persons who resided with or adjacent to children in the nineteenth century is especially striking when we consider that not all the elderly had the possibility of residing with their children. About 7

per cent of the elderly had never married, and with few exceptions this meant that they had no children with whom to reside. Another 8 per cent married, but the marriage produced no children. Some 5 per cent of the elderly had children, but all of them had died. Taking all this into account, then, somewhere on the order of a fifth of the elderly in 1860 had no living children. About 8 in 10 elderly persons resided with their children or immediately next door in 1860; thus, as near as we can measure, the practice was essentially universal.[4]

Despite the universality of elderly persons living with or next door to their children, the consensus of historians is that the elderly in the past always preferred to live alone, just as they do today. Tamara K. Hareven, the most prominent analyst of the history of generational relations, is representative of the mainstream of historical opinion:

> Aging parents and children [in the nineteenth century] rarely coresided in multigenerational households ... Despite this overall commitment to residence in nuclear households, common to members of various ethnic groups and native-born Americans alike, nuclear households expanded to include other kin in times of need, during periods of accelerated migration or housing shortage. The most notable extension of the household occurred when elderly parents and especially widowed mothers were unable to maintain themselves in their own residences. In such cases, aging parents had an adult child return to live with them, or they moved into a child's household (Hareven, 1994; p. 442).

The idea that the aged have always preferred to live alone and that multigenerational families were only resorted to in cases of dire necessity stems from Peter Laslett's findings some four decades ago that the overwhelming majority of pre-industrial English households were nuclear in structure (Laslett and Harrison 1963; Laslett 1972). But, as I have argued at length, the percentage of households containing extended kin has limited relevance for the analysis of the living arrangements of the aged (Ruggles, 1986, 1987, 1994, 1996a, 1996b). Long generations, short life expectancy and high fertility before the demographic transition meant that there was a small population of elderly people spread thinly among a much larger younger generation. Under these circumstances, the percentage of households with elderly kin was necessarily small.[5] Indeed, if every elderly person in the United States in 1850 who was living apart from kin—whether alone, in the almshouse or as a servant or boarder—moved in with kin, that would increase the total number of muligenerational families by only 20 per cent.

Hareven was among the first to discover that the elderly in the past usually resided with their grown children. Because she was already firmly convinced by Laslett's argument that there had always been a strong preference for nuclear family composition, she downplayed the significance of the finding. She maintained instead that three-generation families were rare before the industrial revolution and were only resorted to in

cases of necessity, "primarily when elderly parents were too frail to maintain a separate residence" (Hareven, 1996; pp. 1-2). Virtually all historians who have written on this subject in recent years agree with Hareven. Nineteenth-century elderly persons only moved in with their children, they argue, when they were widowed, infirm or impoverished and had no other alternatives.[6]

The formation of multigenerational families in the nineteenth century

In the nineteenth century multigenerational families were usually formed when one child remained in the parental home after reaching adulthood to work on the family farm or business, with the anticipation of eventually inheriting it. Even though most households did not include multiple generations at any given moment, the great majority of families went through a multigenerational phase if the parents lived long enough. The multigenerational family was a normal stage of the pre-industrial family cycle. Families were typically multigenerational only for a brief period, after the younger generation reached adulthood and before the older generation died.[7] This multigenerational phase nevertheless played an essential role in the functioning of the pre-industrial family economy. It ensured continuity of the labour supply on farms and for other traditional livelihoods and provided economic security in old age. The two generations were interdependent; the elders needed their children to continue to operate the farm, but as long as the elders held the property they were ultimately in control. With the replacement of the pre-industrial family economy by a wage-labour system, the incentives for multigenerational families disappeared.

Most other historians working in this area have a very different interpretation of the formation of multigenerational families in the nineteenth century. Kertzer (1995) has dubbed the dominant interpretation the "nuclear reincorporation theory". The theory states that all children ordinarily left home when they got married. Then, when the elderly parents became widowed, infirm or impoverished, they moved into their children's household. Thus, most historians maintain, the elderly in the multigenerational family were usually the dependent generation, and the younger generation took in their needy elders because of altruism. This theory allows family historians to reconcile their belief that a nuclear family system predominated in the nineteenth century, with the empirical finding that the elderly ordinarily resided with their children. It also provides a neat explanation for the decline of multigenerational families in the twentieth century: with rising incomes, more and more of the elderly could afford to maintain themselves, and did not have to move in with their children.

It matters who moved in with whom, because the formation of multigenerational families sheds light on the motivations of both generations, and has powerful implications for the disappearance of the multigenerational family in the twentieth century. It is difficult to study the formation of families in the nineteenth century, because our sources are limited. Qualitative sources—such as letters and diaries—provide

many examples of both children remaining with their parents and of elderly parents moving in with their children, but they cannot tell us which pattern predominated. Nor can the available quantitative sources answer the question unambiguously. The census is a cross-section of the population at a given moment, so it cannot directly tell us how multigenerational families came about. But the quantitative evidence does provide some revealing clues.

If children established independent households upon reaching adulthood and their parents moved in with them later on, that implies that parents and children ordinarily resided separately for a period. Thus, one would expect to find that the proportion of persons residing with children would decline in late middle age as the children left home, and then increase again in old age as the parents moved in with their children. By contrast, if the co-resident child had never left home, one would expect no increase in co-residence of the elderly with increasing age. Figure IV shows the percentage of persons residing with their children by age for selected years from 1850 to 1980. In recent census years, there has been the expected rise in co-residence among the very old. This pattern is most clearly evident in 1980, when persons aged 80 or over were almost twice as likely to reside with children as persons aged 65 to 69. The hypothesis that multigenerational families were formed when dependent elderly moved in with their children fits reasonably well with the evidence from the twentieth century. But in 1850 and 1880, there was no increase in co-residence with increasing age. This finding is consistent with the interpretation that the elderly did not typically move in with their children for support; instead, the children never moved out.

(FIGURE IV HERE)

Headship patterns offer a second clue to the formation of multigenerational families. The federal census directed enumerators to list the head of household first on the census schedule, so enumerators had to identify which individual was the head. It seems implausible that dependent elderly who moved into the household of a child for assistance would assume the household headship. On the other hand, in families where the child remained in their parental household after marriage, we know that the child often assumed headship when the father retired or died. Thus, when the elderly are listed as head, we can reasonably assume that they did not move in with their children; if a child is listed as head, however, that does not necessarily mean that the household was formed independently by the child. The proportion of elderly listed as head can therefore reasonably be regarded as a lower-bound estimate of the proportion remaining in their own households.

In every census year between 1850 and 1900, over 75 per cent of elderly men residing with a child were listed as the household head. This suggests that in multigenerational households with elderly men, the older generation ordinarily retained authority. It is doubtful that many of these elderly men had moved in with their children because they could no longer support themselves; it is far more plausible that the younger generation

remained in the parental household after reaching adulthood. About one third of unmarried elderly women in multigenerational households were listed as household heads, but this does not mean that the elderly mother necessarily moved in with her children after she was widowed. In many cases, property and authority shifted to the male heir upon the death of the father.

Even if most multigenerational families were formed when children remained in their parental home after reaching adulthood, there is evidence that some elderly did move in with their children. The clearest indication comes from information on marital status. Although both married elderly and widowed elderly ordinarily resided with children, widows did so slightly more frequently than did married couples. In 1880, the earliest year for which we have full information on marital status, about 68 percent of elderly widows lived with children, compared with only 63 per cent of married couples. This suggests that a significant minority of elderly widows either moved in with a child when their husbands died, or a child who had previously left home moved back upon the death of the father.

The censuses demonstrate unequivocally that the great majority of nineteenth-century elderly who had a living child resided with a child. Did the parents move in with their children, or did the children remain in their parental household after reaching adulthood? The evidence on headship and on the age pattern of co-residence indicates that in most cases the children were remaining in their parental household. Still, some elderly clearly did move in with children in old age. The most plausible interpretation is that both patterns were fairly widespread: usually, adult children remained in their parental households, but occasionally, the elderly—especially widows—did move in with their children.

Parental widowhood and the marriage of children

Only a minority of married elderly persons in the nineteenth century resided with married children. More often, married elderly resided with unmarried children and unmarried elderly resided with married children. About 17 per cent of married couples in the mid-nineteenth century resided with married children; by contrast, 56 per cent of widowed elderly resided with married children.

Some analysts have interpreted this pattern as evidence supporting the nuclear reincorporation hypothesis. They reason that married elderly resided with their unmarried children, but the younger generation departed upon marriage and established independent households. Then, when the older generation became widowed or infirm, they moved in with their married children. But the evidence on headship and on the age pattern of co-residence suggests that nuclear reincorporation was not the dominant mechanism of multigenerational families.

There is an alternate interpretation of the association between parental widowhood and the marriage of children. The most important determinant of marriage for the younger generation in multigenerational families was not the marital status of the parents, but rather property ownership of the children. As illustrated in figure V, members of the younger generation in multigenerational households seldom married before they obtained property. Historians have long argued that in pre-industrial Western society, marriage was contingent on economic circumstances: young couples were usually forced to delay marriage until they were economically independent (Hajnal, 1965).

(FIGURE V HERE)

The younger generation in multigenerational families could obtain the family property by either inheritance or gift. It appears that only a minority of nineteenth-century male property holders transferred their property to their children while they were still alive, although it clearly did happen from time to time (see, for example, Gross, 1993). In 80 per cent of multigenerational households with a surviving father between 1850 and 1870, all the property was in the hands of the father, but in the other 20 per cent of cases, the younger generation held at least some of the property. When the father died, the property was usually split between the widow and the children. Widows were almost always entitled to a share of the family property, whether or not their husbands left wills, and this no doubt helped to protect their position in the family.[8] The largest share of land, however, ordinarily went to the co-resident child.

It is clear, then, why the death of a father was associated with marriage of the younger generation. In most cases, the children had to wait for the death of the father in order to inherit, and in most cases they could not marry without the inheritance. But widowed men were also more likely to reside with married children than were married men. Maternal death did not ordinarily lead to an inheritance when the father survived. Thus, we would not expect the adult children of widowed men to be in any better position to marry than were the adult children of married men. Why, then, did widowed men tend to live with married children, while married men lived with single children?

The answer is connected to the rigid sexual division of labour in nineteenth-century households. Some essential tasks—including food storage and preparation, housekeeping, and clothing manufacture and repair—were only performed by women. It was therefore essential to have an adult woman in every household, and the need for an adult woman was especially critical in farm households. Thus, if an elderly man living with an unmarried son was widowed, he had two options: he could either remarry himself, or he could provide the resources for his son to marry. In most cases, he did the former: in 1910, the earliest year for which we have information, about 63 per cent of ever-widowed men had remarried. When, for whatever reason, the patriarch did not remarry, however, he had little choice but to allow his son to marry.

If an elderly man living with an unmarried daughter became widowed, there was much less need to allow the daughter to marry. As long as the father was fit to carry out the male tasks, the family could survive with one adult man and one adult woman. The result of this pattern is evident in figure VI, which shows the percentage of children married, by sex and by sex of parent. In families with a widowed father and a daughter, only 38 per cent of the daughters were married in 1850-1860. By contrast, in families with a widowed father and a son, 64 per cent of the sons were married. This dramatic difference in the percentage married between sons and daughters supports the interpretation that the ability of the younger generation to marry was contingent on the resources provided by their parents.

(FIGURE VI HERE)

Sickness, wealth and living arrangements of the aged

The evidence on the formation of multigenerational families does not resolve the issue of the reasons for multigenerational family composition: was it a mutually beneficial arrangement, as I maintain, or was it a system of old-age support resorted to only out of necessity, as most other historians believe? To assess whether the elderly lived with their children because they were dependent on them, we must explore evidence on sickness and wealth.

Most historians agree that nineteenth-century elderly lived with their children for one of two main reasons: either they were too sick or frail to adequately care for themselves in their own residence, or they were too poor to afford a place of their own. The nineteenth-century censuses provide sufficient information to test both of these hypotheses.

The 1880 census included a unique inquiry: "Is the person on the day of the Enumerator's visit sick or temporarily disabled, so as to be unable to attend to ordinary business or duties? If so, what is the sickness or disability?" This question cannot be expected to capture all cases of frailty, but the responses are full of entries like "old age and rheumatism", "enfeebled by years", "helpless from age and infirmity", and "dotage". Even if the question is not perfect, it is the most comprehensive question on health ever to appear in an American population census. If ill-health were a significant motivation for the elderly to reside with their children in the nineteenth century, we would expect to find that sick elderly would reside with children more frequently than did healthy elderly.

It turns out that sickness and disability were not associated with multigenerational family composition. Among elderly persons listed with a chronic illness in 1880, 56.0 per cent resided with a child; by contrast,

60.5 per cent of healthy elderly resided with a child.[9] The same pattern prevailed for women and men alike among both blacks and whites. If anything, then, sickness among the elderly actually discouraged residence in multigenerational families. This makes sense if the younger generation was usually dependent on the older generation, since chronically ill elderly probably had less to offer as incentive to stay around.

We also have good information on wealth. In 1850, the census included a question on the value of real estate owned by each individual; in 1860 and 1870 the census asked about both real estate and personal property.[10] The relationship between value of property and living arrangements is given in figures VII and VIII. By both measures, the wealthiest elderly were the ones most likely to reside in multigenerational families. This is exactly what we would expect if the younger generation ordinarily remained on the family farm with the hope of eventually inheriting it; if the parents had little property, the children had little incentive to remain behind. If nineteenth-century multigenerational families were mainly formed to assist destitute elderly parents, however, we would expect that the wealthy would be the group most likely to live alone.

(FIGURE VII HERE)

(FIGURE VIII HERE)

Other indicators of socio-economic status confirm the finding that high economic status was associated with multigenerational family composition in the nineteenth century. In the nineteenth century, middle- and upper-income families almost always had live-in domestic help. Several historians have argued that dependent elderly kin—particularly mothers or mothers-in-law—in the nineteenth century took the place of servants, by providing child-care services and helping with housekeeping in exchange for their maintenance. Thus, one might expect to find that multigenerational households had fewer servants than other households. In fact, as shown in figure IX, residence with servants was strongly associated with residence in multigenerational families, and the effect is virtually as strong for women as for men. The reason is simple: it was the rich who most often resided in multigenerational families.

(FIGURE IX HERE)

The only indicator of socio-economic status consistently available for the entire period from 1850 to 1990 is occupation. Unfortunately, this measure is only available for a minority of the elderly. For nineteenth-century women, occupational information is seldom available and even when it is it often provides little insight into economic well-being. Moreover, with the rise of the wage-labour system, men began to retire when they reached old age. Thus, by 1920, occupational information is unavailable for 37 per cent of elderly men.

Despite these limitations, the occupational data is invaluable because it provides our only means of tracing the long-run trend in the relationship between economic status and multigenerational family composition.

Our census database classifies the occupational information in all census years into 280 job titles defined by the Census Bureau for the census of 1950. To analyse the living arrangements of the elderly, four occupational groups are defined based on the median income of persons with each occupational title in 1950. Category one is the lowest, and it includes all titles with median incomes that fell in the bottom quarter of the 1950 income distribution, such as domestic servants, newsboys, waiters and waitresses, laundresses and farm labourers. Category two, which represents the second quarter of the income distribution, includes cashiers, stenographers and typists, apprentices of various sorts, telegraph messengers, shoe repairmen, barbers and teamsters. The third category includes most of the skilled artisans, such as bakers, blacksmiths, carpenters, mechanics, plumbers and tailors, as well as skilled factory workers, policemen and bookkeepers. The highest quarter of the income distribution includes engineers, lawyers, doctors, academics, stockbrokers, managers, officials and proprietors.

The relationship between the four occupational categories and residence with adult children is given in figure X. The analysis is restricted to elderly employed males. The author also excluded farmers, because their occupation is a poor indicator of their economic status. The results are striking. From 1880 to 1920, there was a clear association between high economic status and residence in multigenerational families: the better paying the job, the more likely was co-residence with children. From 1940 to 1970, however, this relationship gradually diminished, as did the percentage of multigenerational families in the highest economic group by comparison with the lowest group. By 1980, the transition was complete: the better the job, the lower the likelihood of residence with children.

(FIGURE X HERE)

Taken as a whole, the evidence on the class patterns of multigenerational family composition in the nineteenth century is irresistible. Multigenerational families in the nineteenth century were not a refuge for the poor; on the contrary, they were especially characteristic of the rich. The poor elderly, who had little to offer their children, were the group most likely to end up living alone.

THE DECLINE OF THE MULTIGENERATIONAL FAMILY

Dimensions of change

The United States in the mid-nineteenth century was already one of the leading industrial nations in the world. It was among the top producers of boots and shoes, cotton textiles, liquor, paper, agricultural implements, guns and ships. As early as 1840, more horsepower was generated by steam engines in the United States than in any other country, and more than half of the world's railroad mileage was in the United States. The improvements in transportation—not just the railroads, but also canals and turnpikes—opened up vast new tracts of land in the interior to commercial farming. Farmers began to sell most of what they produced, and they used the proceeds to buy all sorts of tools and consumer products they could not previously afford, such as magazines, almanacs, whale-oil lamps, wallpaper, clocks, scissors and woven cloth. By mid-century, the innovations in manufacturing, transportation and commerce touched the lives of virtually all Americans.

Even though the transformation of the economy was well under way, the United States in 1850 was still a fundamentally agricultural society. The great majority of Americans still lived in rural areas and most earned their living from agriculture. Wealth was reckoned in land and slaves. American families grew most of their own food and made most of their own clothes. Despite the early growth of the factory system, even manufacturing was still mostly carried out within the household: artisans and their families typically lived together adjacent to the shop where they produced such products as leather goods, flour or furniture. The system of household production also predominated in the service sector, especially in retail trade.

The gulf that separated Americans from the Victorians is apparent in figure XI, which shows the estimated percentage of the population residing in rural areas and the percentage of the labour force engaged in non-agricultural pursuits from 1790 to 1990. Employment in agriculture began to fall after 1810, when about 85 per cent of the labour force worked in farming. For the next 17 decades, agricultural employment dropped steadily by an average of 5 per cent per decade; by 1980, only 2 per cent of workers remained in farming. Few Americans lived in towns in the mid-nineteenth century; as late as 1840, 9 out of 10 Americans resided in places with less than 2,500 population. Through most of the nineteenth century, the majority of those who did not work on farms still lived in rural areas, often providing services to farmers.

(FIGURE XI HERE)

The rise of male wage labour and the decline of the multigenerational family

The multigenerational family system of mid-nineteenth century America provided benefits for both the older generation and the younger generation. Elderly farmers needed an adult child or child-in-law to do heavy work when they were no longer capable of doing it themselves. The younger generation eventually inherited the farm. As wage work replaced family labour, this system eroded. Wage labour undermined the family economy through two mechanisms. First, rising opportunities attracted young men off the farm or away from the family business. Then, when those lifelong wage earners aged, they had no need for their children to remain and operate the family business, and they had no incentives to offer for the next generation to stick around.

The chronological fit between the shift from male self-employment to wage work and the shift from multigenerational to solitary residence among the aged is fairly good. Figure XII shows the percentage of white and black men who were employed in wage or salaried jobs from 1850 to 1990, and figure XIII compares the percentage of elderly whites and blacks living without their children. Among whites, the most rapid rise in wage labour occurred before 1920, whereas the change in family composition was most rapid after 1920. Perhaps this is because there was a lag between the disappearance of the economic incentive for multigenerational families and the shift to separate residence.

(FIGURE XII HERE)

(FIGURE XIII HERE)

Among blacks, the chronological fit between wage labour and separate residence of the elderly is less perfect. The percentage of black men who were wage workers actually declined from 1870 to 1920, and rose sharply thereafter. The percentage of elderly blacks living without children, however, rose continuously except for a slight downtick between 1880 and 1900. This points to a problem in using a crude index of self-employment. The rise in black self-employment in the late nineteenth century reflects the adoption of the sharecropping system in the South. Sharecropping replaced wage agricultural labour because it increased profits for planters, not because it offered anything to the workers. The system did not provide blacks with incentives to adopt multigenerational family composition; older sharecropping blacks ordinarily had few assets and were frequently saddled with debt. The economic circumstances of both older and younger blacks were dismal during the late nineteenth and early twentieth centuries, and they did not improve greatly until the northward migration of the mid-twentieth century. Because of the prevalence of sharecropping, we would not expect self-employment to be a good predictor of co-residence for blacks in this period.

The black pattern of rising self-employment in the late nineteenth and early twentieth centuries highlights an important point. Some self-employed jobs—including such titles as hucksters, peddlers and bootblacks, as well as sharecroppers—provided little incentive for the younger generation to remain at home and work in the family business. Only those family businesses that represented better opportunity than wage-labour employment were sufficient to keep the younger generation at home. Similarly, the availability of wage employment was not by itself sufficient to attract young men off the farm; there had to be jobs that paid decent wages. Wage labour had always existed. In the mid-nineteenth century, however, most wage labour involved backbreaking work for little pay; the biggest wage-labour occupations were agricultural labour and domestic service.

Increasingly, however, well-paid wage jobs were being created in factories, railroads and offices. Figure XIV gives the percentage of black and white men in "good" wage and salary jobs from 1850 through 1990. Good jobs are defined as those occupations with earnings of $2,200 or more in 1950. Adjusted for inflation, this is equivalent to the poverty line for a family of four in 1998, but in 1950 and before it was considered a decent middle-class wage. The percentage of both white and black men with good jobs rose dramatically from the nineteenth century until 1970, with only a brief interruption during the depression. In all periods, the gap between blacks and whites has been enormous, but it has diminished slightly since the Second World War. Between 1980 and 1990, the percentage of men with good jobs began to fall.

(FIGURE XIV HERE)

Geographic analysis of multigenerational families, 1850-1940

The rise of well-paid wage-labour jobs did not occur evenly across the country. In some parts of the country—like Rhode Island and Massachusetts—industrialization was well under way by 1850. Other areas—like Arkansas, Alabama and Mississippi—remained rural backwaters well into the twentieth century. The combination of great geographical variation and rapid chronological change in the economy allows us to test the hypothesis that the rapid decline of co-residence between the elderly and their children was connected to the rise of good wage-labour jobs for the younger generation.

In the mid-nineteenth century, wage labour had been concentrated in Rhode Island and Massachusetts, where the earliest textile mills had been established, together with California, which was dominated by mining. Then the wage-work system spread, first to other New England States and the Mountain States, then to New Jersey, Pennsylvania, Delaware and Maryland. In the early twentieth century, industries like meat packing, steel making and automobile manufacturing turned Illinois, Ohio and Michigan into wage-labour States. After

the war, regional differences began to diminish, and self-employment became rare outside the agricultural States of the Great Plains.

For the period from 1850 through 1950, the geographic distribution of multigenerational families was closely correlated to the geographic distribution of self-employment. For example, multigenerational families in 1920 were concentrated in the southern tier and to a lesser extent in the upper Midwest, the same regions that retained the highest percentage of self-employment.

The combined geographic and chronological association of work and family composition can be seen in figure XV, which is a scatter plot of self-employment percentage and multigenerational families in four census years. The vertical axis shows the percentage of elderly whites residing with children, and the horizontal axis shows the estimated percentage of men self-employed.[11] Each symbol represents a State in a particular census year. For example, the rightmost symbol on the graph represents Illinois in 1850, where 67 per cent of men were self-employed and 75 per cent of the elderly resided with children. Different symbols are used for each census year. To maximize comparability over time, the graph is limited to the 17 States with a sufficient number of elderly in all census years.[12]

(FIGURE XV HERE)

By analysing State differences in family composition, we can examine the relationship between change in self-employment and change in family composition. The results of this analysis, detailed in table 2, are striking. Three State-level regression models are shown. The first model shows simply the effect of the census year on the percentage of elderly whites residing with children between 1850 and 1940. The "reference category" is 1850, so the coefficients reflect the difference between co-residence of the elderly in 1850 and in the indicated year. For example, the coefficient for 1940 is –21.0, indicating that the average percentage of elderly persons with children was 21 percentage points lower in 1940 than it had been in 1850.[13]

(TABLE 2 HERE)

The second model introduces two variables describing occupational composition. The first of these variables, "farmers", is simply the percentage of white males aged 16-64 listed as farmers in each State. The second variable, "self employed", is the percentage of white males aged 16-64 in the occupations that were most frequently self-employed in 1910 and that yielded earnings of at least $2,200 in 1950.[14] The residual occupational category (not included because of multicollinearity) consists of the predominantly wage and salary occupations. Model 2 shows that if we hold these variables constant across time, the difference between 1850 and 1940 disappears entirely.

The third model is subtler: it controls for State differences in living arrangements. By controlling for State effects, we are accounting for any State differences in residential behaviour that persist over time.[15] As a result, instead of analysing the absolute effects of occupational structure on family composition, model 3 assesses the effects of changes in occupational structure on changes in family composition. Model 3 reveals that the timing of the decline of farming and other self-employment in each State is an excellent predictor of the timing of change in family composition. Indeed, the association between changing self-employment and changing family composition is so strong that it is implausible that the two are not causally related.

We lack sufficient cases to carry out a similar geographic analysis for blacks. Our historical census samples are quite large; to date, our data-entry operators at Minnesota have transcribed information about some 3 million individuals. Blacks, however, have historically comprised less than a tenth of the elderly population. Moreover, blacks were geographically concentrated in the South for most of the period under consideration, and they are still under-represented in the Plains, the Mountain States and northern New England. Thus, we cannot carry out a comparable analysis for blacks. Even if we could, however, it is doubtful whether we could distinguish the effects of changing black opportunities on the living arrangements of the elderly, since we cannot identify sharecroppers in the census database. Nevertheless, the overall trends in the living arrangements of elderly blacks are consistent with an economic interpretation. In the nineteenth century, elderly blacks were less likely to reside with their children than were elderly whites, and this is probably because they had less to offer them. In the twentieth century, as multigenerational family composition became associated with low socio-economic status, the percentage of elderly blacks residing with their children began to exceed that for whites.

Alternate interpretations for change, 1850-1940

We should bear in mind that the close relationship between change in family composition and change in self-employment is merely a statistical correlation, and does not absolutely prove that the decline in self-employment was responsible for the decline of multigenerational families. Historians and sociologists have suggested other explanations for the changing family composition that might also fit the observed geographical and chronological pattern of family change. Urbanization, rising geographic mobility, rising income and changing attitudes have all been proposed to account for the decline of the multigenerational family. None of these factors, however, show the same chronological and geographic fit with family composition as do farming and other forms of self-employment.

Urbanization occurred at the same time as the shift to independent residence of the elderly, but once we control for the effects of farming there is no independent relationship between rural residence and

multigenerational family composition in any period (Ruggles, 1996b). Geographic mobility actually declined between 1850 and 1950, and so cannot be invoked to explain the decline of the multigenerational family in that period. As shown in figure XVI, the percentage of Americans who migrated across State lines declined steadily from 1850 to 1950, and then rose sharply.[16] Even today, however, inter-State migration is less frequent than it was in the mid-nineteenth century. Nor can rising income explain any shift to separate residence before the recent period. As demonstrated above, before 1950, high economic status of the elderly was associated with residence with children; thus, it is not plausible that rising incomes would have contributed to separate residence of the elderly in this period.

(FIGURE XVI HERE)

The effects of attitudinal change are more difficult to assess. Clearly, social norms were changing, and it was becoming increasingly expected that the elderly and their children would reside apart. The real question is whether changing attitudes towards co-residence of the generations were a driving factor in the shift of family composition, or whether the change in attitudes merely reflected changing behaviour. In the latter case, cultural inertia might operate as a brake on changes in the family, keeping some families together after there was any economic incentive to reside in multigenerational families. Since we lack systematic evidence about the precise geographic and chronological patterns of shifting attitudes in the first half of the twentieth century, we cannot tell for sure whether change in attitudes generally preceded or lagged behind changes in the family. The author suspects, however, that attitudes are more likely to have slowed the changes in the family than to have accelerated them.[17]

The effect of rising incomes, 1950-1990

By 1950, the great bulk of the workforce was engaged in wage and salary work, and farming had become a minor occupation. Nevertheless, the shift in the living arrangements of the elderly did not cease. On the contrary, the change in family composition accelerated: from 1950 to 1990, the percentage of elderly persons residing with their children dropped from 37 per cent to 15 per cent.

Sociologists generally attribute the rapid post-war shift in the living arrangements of the elderly to rising incomes. The Social Security programme and the growth of private pension plans meant that more and more of the elderly had good incomes, even though fewer and fewer had their own farms or businesses. Thus, analysts argue, the elderly increasingly had the economic means to maintain separate residences.

For the recent period, unlike the nineteenth century, this theory makes sense. As noted above, until relatively recently the elderly with the highest economic status were the group most likely to reside with their

children. Thus, for the period from 1850 through 1940, it is highly doubtful that an increase in the economic security of the aged would have led to an increase in the percentage of elderly who lived alone. In the second half of the twentieth century, however, the pattern reversed: the elderly with the greatest economic resources were the ones most likely to live alone or with their spouse only. Thus, for the late twentieth century, it is plausible that the rising income of the elderly was responsible for at least some of the change in their family composition.

Since 1950, the census has included a direct inquiry on income, so it is fairly straightforward to estimate the effects of income on family composition. Figure XVII gives the percentage of elderly residing with adult children, by income group for each census year from 1950 through 1990. The income amounts are adjusted for inflation and expressed in 1990 dollars. In all years, the highest-income elderly were least likely to reside with children. The elderly with no income whatsoever were likely to reside with children in 1950 and 1960, but this effect has diminished in more recent years. The pattern was essentially identical for elderly widows, widowers and married couples.[18] There was, however, a significant difference between blacks and whites: among blacks, the relationship between income and family composition was considerably weaker than it was for whites.

(FIGURE XVII HERE)

How much of the decline of the multigenerational family should be attributed to rising income? Let us assume for the moment that the sole reason why the elderly with higher incomes were more likely to reside alone was because they could better afford it.[19] Then it is a straightforward matter to calculate the percentage of the elderly that would have lived with children in each period assuming no change in the income distribution. In figure XVIII, the solid line shows the percentage of elderly who resided with their adult children from 1950 through 1990. The dashed line shows what the percentage would have been had there been no change in the distribution of income.[20] It turns out that the effects of rising income are fairly modest. Overall, less than 30 per cent of the change in elderly family composition can be attributed to this source.[21]

(FIGURE XVIII HERE)

The effect of Social Security on family composition

Some analysts have attributed the shift in the living arrangements of the elderly to the introduction of the Social Security programme of old-age assistance. The Social Security programme began in 1936 during the depths of the Depression, and it has become the most substantial legacy of Roosevelt's New Deal. The programme was modest in the early years; because it was conceived as a pension plan, each person's benefit

depended partly on his or her contributions. Benefits and coverage expanded dramatically from the early 1940s to the late 1970s, however, and Social Security eventually became the largest expenditure of the federal Government, amounting to 22 per cent of total spending by 1997. Figure XIX traces the expansion of average Social Security benefit levels, and figure XX shows the percentage of elderly receiving benefits from the programme. By 1990, the Social Security programme covered approximately 95 per cent of the elderly, and they received an average benefit of $559 per month (*Survey of Current Business*, 1998; p. 7). This has had a dramatic impact on the economic well-being of the elderly. Social Security now accounts for a third of the total income of the elderly, and if Social Security were abolished, the number of elderly in poverty would rise fivefold, to just over 50 per cent (Social Security Administration, 1996; pp. 133, 151).

(FIGURE XIX HERE)

(FIGURE XX HERE)

The Social Security programme is the most massive social policy enterprise ever undertaken in the United States. How much did it affect family composition? This question is complicated, because we lack a crucial piece of information: we do not know how much private savings and pensions would have grown if Social Security had not existed.[22] Certainly, some elderly would have saved more if they thought that they would have to live entirely from savings, and probably unions and employers would have developed larger pension programmes. But because we do not know how much lower savings and pensions would have been in the absence of Social Security, we cannot tell just how much the Social Security programme has raised the income of the elderly.

What we can do is make an upper-bound estimate of the impact of Social Security on the living arrangements of the elderly. Suppose we assume that Social Security had no impact whatsoever on savings or pensions. If that were the case, then we could calculate what the income distribution of the elderly would be in the absence of Social Security simply by subtracting their Social Security income from their total income. Figure XXI shows the effect of Social Security on the income of the elderly in 1990, based on this assumption. If we count Social Security income, only 4 per cent of the elderly in 1990 earned under $2,500; without Social Security, over 35 per cent would have fallen in the under-$2,500 category.[23] The percentage of elderly in every one of the higher income groups declines if we exclude Social Security income.

(FIGURE XXI HERE)

Given our assumption, we can now predict what percentage of elderly would have lived with their children in the absence of Social Security benefits.[24] We can only carry out the analysis for the period since 1970,

because before that we lack census information on Social Security income. The solid line in figure XXII shows the percentage of elderly residing with their adult children from 1950 to 1990. The dashed line shows the predicted percentage residing with children if we exclude Social Security income from 1970 through 1990. The analysis suggests that Social Security has had a significant effect on living arrangements, but in the context of the long-run change in living arrangements, that effect is rather small. Overall, Social Security might explain no more than about 20 per cent of the total drop in residence with children since 1936. Even this effect is surely overstated, since it exaggerates the impact of Social Security on the income of the elderly.

(FIGURE XXII HERE)

The establishment and expansion of the Social Security programme is not, however, unrelated to the revolution in the living arrangements of the elderly; in fact, the two historical trends are closely related. The problem is that many analysts have the direction of causality reversed. As we have seen, the changes in family composition of the elderly began about 1860, long before the advent of Social Security. By 1936, some 40 per cent of the elderly already lived without kin. This created a new social problem of destitute elderly, and the Social Security programme was a solution.

The creators of the Social Security programme uniformly believed that the need for old-age assistance had greatly increased because of the rise of wage labour, the decline of farming and the resulting change in the family. Thomas H. Eliot, Counsel for the Committee on Economic Security, which drafted the Social Security bill, put it this way:

> In the old days, the old-age assistance problem was not so great so long as most people lived on farms, had big families, and at least some of the children stayed on the farm. It was customary when the old people got too old to do their share of the work they would stay on the farm and the sons or daughters would keep them there in the home. That pattern changed slowly but continuously from the early part of the century as more and more of the young, rural population left the farms. The three-generation household (aged parents, children, and grandchildren), perfectly common 50 years ago, had begun to become very rare indeed. By the time people got old, the children had already left and gone to the city. There was no one to take care of them. Hence, an increase in the problem of the needy aged (Eliot, n. d.).

Another drafter of the original Social Security legislation, J. Douglas Brown, spoke of the problems created when older people had been left behind as young people moved to the cities (Brown, 1969). Nelson Cruikshank, another early advocate of Social Security, explained that before the 1930s most people thought all a family needed for a secure old age or to ride out a period of depression was a quarter section of good land

and a couple of sons to help farm it, or even a couple of daughters through whom able-bodied sons-in-law might be acquired (Cruickshank, 1978). And Ewan Clague, who joined the Social Security Board in 1936, wrote that earlier in the century, old people simply lived on the farm until they died; consequently, the modern old-age problem had not developed (Clague, 1961).

Thus, Social Security did not cause the major changes in the family composition of the elderly; rather, it was a consequence of such changes. The creators of the Social Security system saw it as a response to changes in the family that had already taken place as a consequence of the decline of farming and the rise of urban wage labour.

Socio-economic status of the younger generation, 1950-1990

Rising income can account for no more than 30 per cent of the decline in the residence of the elderly with their children during the second half of the twentieth century, and perhaps two thirds of this change resulted from the Social Security programme. What, then, was the source of the other 70 per cent of change? To understand what happened, we must shift our focus to the characteristics of the younger generation.

Between 1950 and 1970, the income of the elderly doubled, but the income of the younger generation rose even faster. In constant dollars, the income gap between the elderly and their children grew rapidly. In 1950, persons in their 30s and 40s made an average of $4,900 more than persons aged 65 or older, in 1990 dollars; by 1970, the gap had grown to $10,000. Even more dramatic was the growing disparity in education between the younger generation and the older one. In the early twentieth century, when secondary education was expanding gradually, the younger generation was only slightly better educated than their elders. In 1925, the elderly had an average of only 1.1 fewer years of schooling than did their children. With the rapid rise of secondary education after the turn of the century, however, that education gap expanded dramatically: by 1960, the elderly had an average of 3.0 fewer years of schooling than did their offspring.[25]

The author contends that the growing disparity in income and education between elderly parents and their children had profound implications for generational relations. The traditional authority of the patriarch had depended largely on control over economic resources. But the authority of the older generation—women as well as men—also depended on respect for their knowledge and experience. In the rapidly changing world of the mid-twentieth century, longevity no longer was the key to useful knowledge. The younger generation increasingly regarded their elders as relics of a bygone age.

The growing educational and economic gap between generations compounded the decline in the authority of the old. It also meant a dramatic expansion of economic opportunity for the young. The generation that

reached adulthood after the war had unprecedented success early in life, especially in contrast to their Depression-era parents.

Social gerontologists have consistently argued that the decline in residence of the elderly with their children reflects the preferences of the elderly. This argument has its roots in the pioneering surveys carried out in 1957, 1962 and 1975 by Ethel Shanas, in which the elderly consistently maintained that they did not want to move in with their children (Shanas, 1962, 1968). The elderly say that they do not want to be a burden to their children. When the elderly do live with their children, they are now usually dependants of their children, a living arrangement that is considerably less attractive than the dominant position of the elderly in the nineteenth-century family.

There has been much less attention paid to the preferences of the younger generation, but they are clearly just as reluctant to live with their parents as their parents are to live with them. The rise of secondary and higher education eroded the remaining economic incentives for the younger generation to defer to their elders. In the mid-twentieth century, after most people had begun to work for wages and agriculture had become a minor sector of the economy, young people often found jobs through parents or other family connections. The growing gap in education between generations meant that the younger generation sought higher-status jobs, and their parents often could not help. The increased pace of social and economic change in the twentieth century, compounded by the growing differences in education level, led to a growing cultural gap between the generations. Thus, the residential preferences of the young may have shifted even more dramatically than did those of the old.

To assess the effects of changing income and education on the living arrangements of elderly whites between 1950 and 1990, I again turned to geographic analysis. The results reveal that throughout the period, the States with the highest income and education of the younger generation tended to be the States with the lowest percentage of elderly residing with children.

Just as in the analysis of self-employment described earlier, we can control for State differences in family composition in order to focus on the relationship between change in education and income and change in family composition. The analyses presented in table 3 are similar to those in table 2, but the period covered is 1950 through 1990 and the explanatory variables are measures of income and education instead of measures of occupational structure. Model 1 shows the overall change in the percentage of elderly residing with children, without controlling for any of these factors. The model shows a decline of 38 percentage points in residence of the elderly with children between 1950 and 1990. This figure is somewhat larger than the true change in the percentage living with the elderly, since it represents the average change across 48 States and the District of Colombia.

(TABLE 3 HERE)

The second model in table 3 adds two income variables: the percentage of elderly (age 65+) with incomes of $13,000 or more, and the percentage of the younger generation (ages 30 through 49) with incomes of $13,000 or more. State effects are also controlled, so the model predicts the effects of changes in income on changes in the family composition of the elderly. The coefficients for both income measures are significant, but not in the expected direction: high income of the elderly was associated with co-residence, not with separate residence as we would expect. High income of the younger generation, as expected, was associated with separate residence. Model 2 explains little of the change over time, as the rising income of the elderly nearly cancels out the effects of rising income for the younger generation; only about 10 per cent of the change over the period 1950 through 1990 disappears when we control for the income of both generations.

Model 3 adds an educational variable: the percentage of the younger generation (ages 30 through 49) with 12 or more years of schooling. The results are dramatic: changing educational levels of the younger generation are far better predictors of changing family composition of the older generation than are either of the income measures. Indeed, when we add education to the model, it swamps the effects of the income measures, and both lose their statistical significance. Moreover, this analysis suggests that the rising education of the younger generation can explain most of the rise of solitary residence among the aged. By contrast, the usual explanation for the change, the rise in income of the aged themselves, does not appear to have an independent effect on living arrangements.

This sort of geographic analysis has the potential to yield misleading results. The evidence clearly reveals that the States with the greatest increases in education for the younger generation were the ones with the greatest shift to independent residence for the elderly. This relationship is so strong that it could be sufficient to explain most of the decline in co-residence of the elderly since 1950. This does not, however, prove that the education of the younger generation was actually responsible for the change in the living arrangements of their parents. Instead, it could be that some unmeasured characteristic of the States with high education actually caused the elderly to live alone. This analysis should therefore be considered provisional. In the absence of credible evidence to the contrary, however, it appears that the changes in the living arrangements of the elderly during the second half of the twentieth century had more to do with the changing characteristics of the younger generation than with the changing characteristics of the elderly.

CONCLUSION

The finding of Peter Laslett (1965) that nuclear family composition was preferred in the West before the industrial revolution is an artifact of demography. Only a minority of households in the United States in 1850 contained multiple generations; as we have seen, however, the great majority of multigenerational households that could have existed did exist. Early death, late marriage and high fertility meant that few multigenerational households were possible.[26] If we measure multigenerational family structure from the perspective of those elderly who had surviving children, it becomes apparent that multigenerational co-residence was essentially universal in the mid-nineteenth century.

Did the co-residence of the elderly and their children result from "nuclear reincorporation" as a form of old-age assistance before the advent of Social Security? The evidence strongly suggests that it did not. Cross-sectional data are imperfect sources for analysis of the formation of multigenerational families. The evidence on the age and headship patterns of such families, however, suggests that in most cases the elderly did not move in with their children; rather, the younger generation remained in their parental household after they reached adulthood. Nor is there evidence that the elderly preferred co-residence to residing alone but were forced to do so only by dire necessity. The evidence on sickness and socio-economic status clearly indicates that neither sickness nor poverty were associated with multigenerational living.

Although there were far too few elderly in nineteenth-century America to create a majority of multigenerational families, their residence with the younger generation was clearly a social norm.[27] In the twentieth century, the demographic constraints on multigenerational family composition relaxed. Because of declining fertility, increasing life expectancy and shortening generations, by the late twentieth century the opportunities to form multigenerational families had increased dramatically. In 1990, only a small minority of potential multigenerational families existed.

The decline of the multigenerational family made sense for both the older and the younger generations. With the decline of farming and the rise of wage labour, the older generation no longer had need for the labour the younger generation once provided, and the younger generation no longer had need for the assets of the old. The growing education gap in the second half of the century also contributed to the decline in the economic power and authority of the older generation, as it simultaneously expanded opportunities for the young.

Does the American experience apply elsewhere? Many historians argue that the family system of North-western Europe and North America was fundamentally different from that of the rest of the world. Asia and parts of Eastern and Southern Europe, they maintain, were characterized by a joint family system that operated

very differently from the nuclear family system of the Western countries (Hajnal, 1982, Kertzer, 1991). It is clear that North-western Europeans married unusually late, and unlike in some other places they seem to have had a strong aversion to the co-residence of married siblings. On the other hand, it is entirely plausible that the basic mechanisms of the decline of the multigenerational family in the United States also underlie the transformation of the living arrangements of the elderly across the globe. The shift to wage labour and the decline in patriarchal authority within the family are worldwide phenomena. Only further research can reveal if there is the same close association between economic opportunity of the younger generation and the simplification of families for the older generation in other countries.

Such research will soon become possible. The author has recently been awarded a large infrastructure grant by the National Science Foundation to make available contemporary and historical census microdata for a wide range of countries. This project will create and disseminate an integrated international census database incorporating 21 countries on six continents. It will be the world's largest public-use demographic database, with multiple samples from each country enabling analyses across time and space. The project entails two complementary tasks: first, the collection of data that will support broad-based investigations in the social and behavioural sciences; secondly, the creation of a system incorporating innovative capabilities for worldwide web-based access to both metadata and microdata. When this project is complete, it will make possible international comparative analyses of change in the living arrangements of the elderly, and we should be able to test whether the American case is in fact exceptional.

NOTES

[1]The IPUMS database and documentation (Ruggles and others, 1998) are available online at www.ipums.umn.edu. Data preparation was supported by NIH grants HD34572, HD34714, HD29015 and HD25839, and NSF grants SBR-9617820, SBR-9422805, SES-9118299 and SBR-9210903.

[2]A few studies—mostly by demographers—attempted long-term comparisons at the national level. These include Kobrin (1976), Smith (1986), Ruggles (1988) and Sweet and Bumpass (1987). Prior to the availability of IPUMS, such studies were plagued by problems of comparability; see Ruggles and Brower (forthcoming).

[3]This estimate is based on examination on the census microfilm of approximately 500 elderly persons residing without children randomly selected from the 1860 sample. It was fairly common for nineteenth-century farmers to build a second house on the property. The second house was usually smaller than the first; it might house a newly married child, and could also serve as a retirement home for the older generation.

[4]The estimate on percentage never-married is based on persons aged 85+ in 1880; the estimate on childlessness is based on persons born before 1820 as reported in the 1900 and 1910 censuses; the estimate on child mortality is based on microsimulation, together with empirical evidence on the clustering of child deaths; see Ruggles (1996b).

[5]The idea of demographic constraints on multigenerational families was first proposed by Levy (1965). The first empirical estimates of the effect were published by Coale (1965) in the same volume. Since then, analysts have used a wide variety of approaches to address the problem, and have obtained a wide variety of results; see Glass (1966), Burch (1970), Wrigley (1969), Bradley and Mendels (1978), Wachter, Hammel and Laslett (1978); Post, and others (1997). The author's own work on the problem, using microsimulation, life-table and demographic decomposition approaches, includes Ruggles (1986, 1987, 1993, 1994, 1996a).

[6]See, for example Smith (1979, 1981, 1986), Costa (1997), Elman (1998), Elman and Uhlenberg (1995), McGarry and Schoeni (1998), Kramarow (1995), Wall (1995), Hammel (1995), Schoeni (1998). The idea that extended families were a refuge for the poor in the nineteenth century is also widespread in the work of the first generation of quantitative social historians, e.g., Anderson (1972), Hareven (1978, 1982), Katz (1975), Foster (1974), and Modell (1978).

[7]This conceptualization owes much to Berkner (1972).

[8]In most States, if the father died without a will, all children and the surviving widow were ordinarily entitled to shares of the inheritance. In some States, the share for sons or for the eldest child was larger than that for other children. A minority of adult decedents—perhaps a quarter to a third—left wills, but among elderly men with multiple children, the proportion was much higher (Shammas, Salmon and Dahlin, 1987).

[9]This difference is significant at the 0.001 level.

[10]About two thirds of elderly individuals and couples responded to these questions. The elderly without property listed cannot be assumed to be poor; many had owned property, but had apparently already transferred their property to their children:

most of the elderly without property listed were living with a child who had property. The elderly without listed property were almost identical to the propertied elderly with respect to the per cent residing with children. This results from two countervailing factors. Some elderly had no property because they had already transferred their property to their children; these elderly ordinarily resided with their children. Other elderly had no property listed because they were truly impoverished, and this group rarely resided with their children.

[11]Since self-employment was first explicitly asked beginning in 1910, for earlier years it was estimated by extrapolating the trend in self-employment backwards within each occupational title.

[12]That is, States with at least 100 elderly whites in every census year. These States represent about 90 per cent of the United States population.

[13]It should be noted that this is not identical to the overall percentage decline in residence with children, which was 24 percentage points, because this is the average of the 17 States represented in all census years.

[14]Ninety per cent of the people in the "self-employed" category are listed with one of the following occupational titles (in order of frequency): proprietors (n.e.c.); carpenters; painters; blacksmiths; tailors and tailoresses; brickmasons, stonemasons and tile setters; physicians and surgeons; plumbers and pipe fitters; real estate agents and brokers; lawyers; insurance agents and brokers; and tinsmiths, coppersmiths and sheet metal workers. The remaining 10 per cent are divided among 33 additional minor occupational titles.

[15]For a discussion of the implications of State fixed-effect models, see Ellwood and Bane (1985).

[16]This measure does not capture within-State migration, which would have formed a more substantial obstacle to co-residence in the nineteenth century than it does today.

[17]For a useful discussion of the problem, see Goldscheider and Lawton (1998).

[18]The data in the graph ignores income for married women. This is because total income is not available for husbands and wives simultaneously in 1950, since income was a "sample line" characteristic asked on only one individual in each household. If the analysis is done including income of married women for the period 1960 onward, the results are unchanged. These data also include the group-quarters population, which have been excluded from many other studies. The group-quarters population tends to have lower income than the rest of the elderly, and of course they do not reside with their children. Therefore, the relationship is a bit stronger if the group-quarters population is excluded.

[19]In reality, of course, there are a myriad of other factors that could create such a relationship. For example, the key factor might really be the income of the children, which is no doubt correlated with the income of the elderly.

[20]The graph uses direct standardization, controlling only for changes in the income distribution. Virtually identical results are obtained through logistic regression.

[21]This result was obtained by decomposing the effects of changing income distribution using the method proposed by Das Gupta (1978), controlling for age in five-year groups, the income categories delineated in figure XVIII, sex and currently married status. The decomposition table is as follows:

	Components of change, 1950-1990	Index of change
Total population difference	0.2052	100.0
Effect of age	-0.0006	-0.3
Effect of sex and marital status	-0.0020	-1.0
Effect of income category	0.0542	26.4
Combined effect of factors	0.0517	25.2
Rate effect	0.1535	74.8

The income effect—26.4 per cent—in this analysis is generally a bit lower than has been found by other investigators; although there is some disagreement, most studies suggest that about half of the recent shift towards living alone can be explained by rising income (see Beresford and Rivlin (1966); Chevan and Korson (1972); Carliner (1975); Davis and van den Oever (1981); Michael, Fuchs and Scott (1980); Pampel (1983); Ruggles (1988, 1996a, 1996b); also relevant are Anderson (1977), Angel and Tienda (1982), Troll (1971), King (1988)).

[22]Social security might also affect the income of the elderly by influencing retirement decisions.

[23]Using 1990 dollars. In this analysis, elderly married couples are treated as a single observation and their combined income is divided equally between them.

[24]To estimate the effect of Social Security on the family structure of the elderly, an additional assumption must be made. It should be assumed that the reason high-income elderly were less likely to reside with children than were low-income elderly was simply because they could afford to live alone, and not the result of some other characteristic of high-income elderly. Again, this assumption makes the estimates conservative.

[25]On the impact of education, the interpretation of Caldwell (1982) is relevant.

[26]This statement assumes the context of a residence rule that prohibited joint families. The author does not argue, as Kertzer (1989, 1991) has implied, that a high frequency of extended families is impossible under such demographic conditions. Kertzer, who maintains that the notion of severe demographic constraints has been hard to kill, argues that demographic constraints on family structure are unimportant on the grounds that there was a high frequency of laterally extended joint families in a central Italian village at the turn of the century. But no one, as far as the author knows, has argued that such families would necessarily be infrequent under any demographic conditions; from Levy (1965) onward, the argument of demographic constraints has always referred to multigenerational extended families.

[27]In pre-industrial North-western Europe, with substantially earlier death and later marriage, the demographic constraints on multigenerational families were even more severe. We can be reasonably confident that only a small minority of the eighteenth-century English population had the opportunity to reside in a multigenerational family (see Ruggles (1987)).

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TABLE 1. PERCENTAGE OF PERSONS AGED 65 OR OLDER RESIDING WITH CHILDREN OR RESIDING ALONE, SELECTED COUNTRIES, 1599-1921

Place/time		*With children*			*Alone*			*N*[a]
		Males	*Females*	*All*	*Males*	*Females*	*All*	
Belgian industrial								
1830	Verviers	58.8	56.1	57.5	6.4	5.6	6.0	996
French Pyrenean								
1793	Bour de Bigorre	85.7	70.0	79.1	0.0	0.0	0.0	46
1846	Esparros	86.2	86.6	85.7	0.4	0.3	0.5	95
1876	Esparros	72.0	76.7	65.6	10.6	6.9	15.6	117
1906	Esparros	54.2	55.8	52.6	18.5	14.7	35.9	105
Irish rural								
1901	4 villages	72.3	69.1	76.4	3.7	3.3	4.2	325
1911	4 villages	77.1	76.9	77.3	3.5	3.1	3.6	542
England								
1599-1796	Rural communities	49.0	37.0	43.1	2.0	16.0	8.9	205
1692	Lichfield	54.0	34.0	41.1	3.0	15.0	10.7	104
1701	Stoke	54.0	46.0	50.0	5.0	8.0	6.5	78
1891	13 communities	48.0	47.0	47.4	5.0	11.0	8.3	3 808
1901	13 communities	51.0	50.0	50.4	4.0	11.0	7.9	4 008
1911	13 communities	52.0	52.0	52.0	6.0	10.0	8.2	4 962
1921	13 communities	52.0	52.0	52.0	6.0	11.0	8.8	5 886
Canada								
1871	National	80.0	74.0	76.7	13.0	36.0		836
Hungary (age 60+)								
1762-1816	4 villages	92.6	90.9	92.0	0.0	0.0	0.0	142

[a]Number of observations.

Sources: Alter, Cliggett and Urbiel (1996); Fauve-Chamoux (1996); Guinnane (1996); Wall (1995); Dillon (1997); Andorka (1995).

TABLE 2. STATE-LEVEL OLS REGRESSIONS OF OCCUPATIONAL STRUCTURE ON PER CENT OF ELDERLY RESIDING WITH CHILDREN: POOLED DATA, STATES WITH SUFFICIENT CASES IN ALL CENSUS YEARS, 1850-1940

	Model 1		*Model 2*		*Model 3*	
	B	*Std. error*	*B*	*Std. error*	*B*	*Std. error*
Census year						
1850	(reference category)		(reference category)		(reference category)	
1880	-7.10	2.38 [a]	4.35	2.39	2.70	2.81
1910	-12.47	2.38 [b]	2.57	2.65	1.05	3.43
1920	-14.25	2.38 [b]	3.17	2.92	1.13	3.87
1940	-21.00	2.38 [b]	1.67	3.51	-1.15	4.90
Occupational structure						
Per cent farmers			0.69	0.09 [b]	0.61	0.14 [a]
Per cent self-employed			1.49	0.28 [b]	1.06	0.42 [c]
State effects	No		No		Yes	
Constant	67.77	1.68 [b]	14.50	8.27	26.63	13.07 [c]
R square	0.52		0.74		0.85	
Adjusted R square	0.50		0.72		0.81	
N	85		85		85	

Notes: OLS = ordinary least squares; B = slope; N = number of observations; P = probability.
[a] $p < 0.01$.
[b] $p < 0.001$.
[c] $p < 0.05$.

TABLE 3. STATE-LEVEL OLS REGRESSIONS OF EDUCATION AND INCOME ON PER CENT OF ELDERLY RESIDING WITH CHILDREN: POOLED DATA, STATES WITH SUFFICIENT CASES IN ALL CENSUS YEARS, 1950-1990:

	Model 1		*Model 2*		*Model 3*	
	B	*Std. error*	*B*	*Std. error*	*B*	*Std. error*
Census year						
1950	(reference category)		(reference category)		(reference category)	
1960	-25.96	1.05 [a]	-19.94	3.07 [a]	-15.34	2.78 [b]
1970	-33.17	1.05 [a]	-26.39	3.89 [a]	-15.14	3.75 [b]
1980	-37.67	1.05 [a]	-32.52	4.19 [a]	-11.53	4.66 [c]
1990	-38.02	1.05 [a]	-34.22	4.57 [a]	-6.42	5.51
Income and education						
Elderly $13,000+			0.29	0.08 [b]	0.06	0.08
Younger $13,000+			-0.24	0.09 [b]	-0.14	0.08
Younger high school+					-0.54	0.07 [b]
State effects	No		Yes		Yes	
Constant	51.15	0.75 [a]	50.68	1.30	74.60	3.43 [b]
R square	0.88		0.97		0.98	
Adjusted R square	0.88		0.96		0.97	
N	244		244		244	

Notes: OLS = ordinary least squares; B = slope; N = number of observations; P = probability.

[a] $p < 0.001$.
[b] $p < 0.01$.
[c] $p < 0.05$.

Figure I. Distribution of living arrangements: elderly white individuals and couples in the United States, 1850-1990

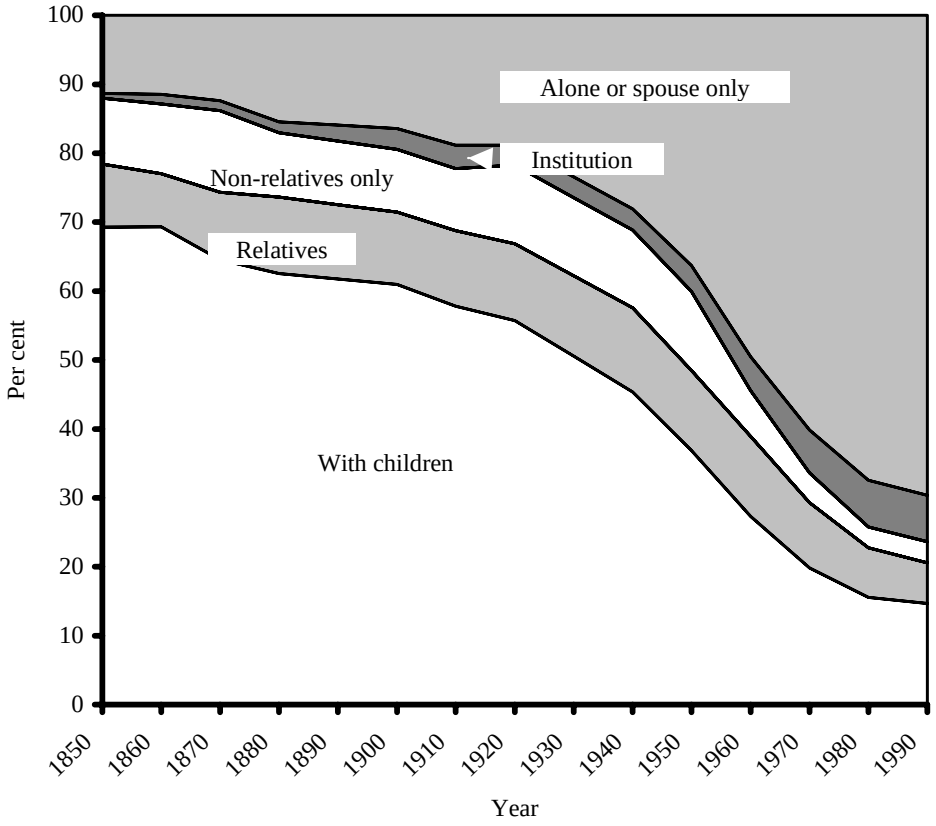


Figure II. Percentage of elderly whites residing with own children, by sex and marital status: United States, 1850-1990

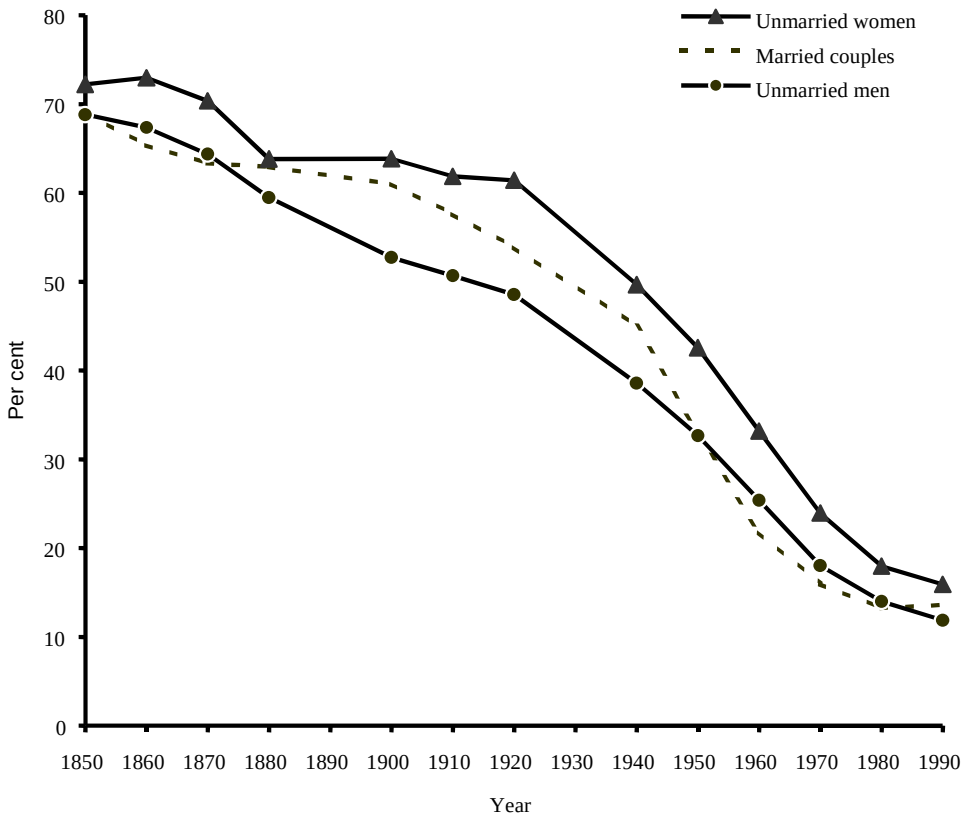


Figure III. Percentage of elderly blacks residing with own children, by sex and marital status: United States, 1850-1990

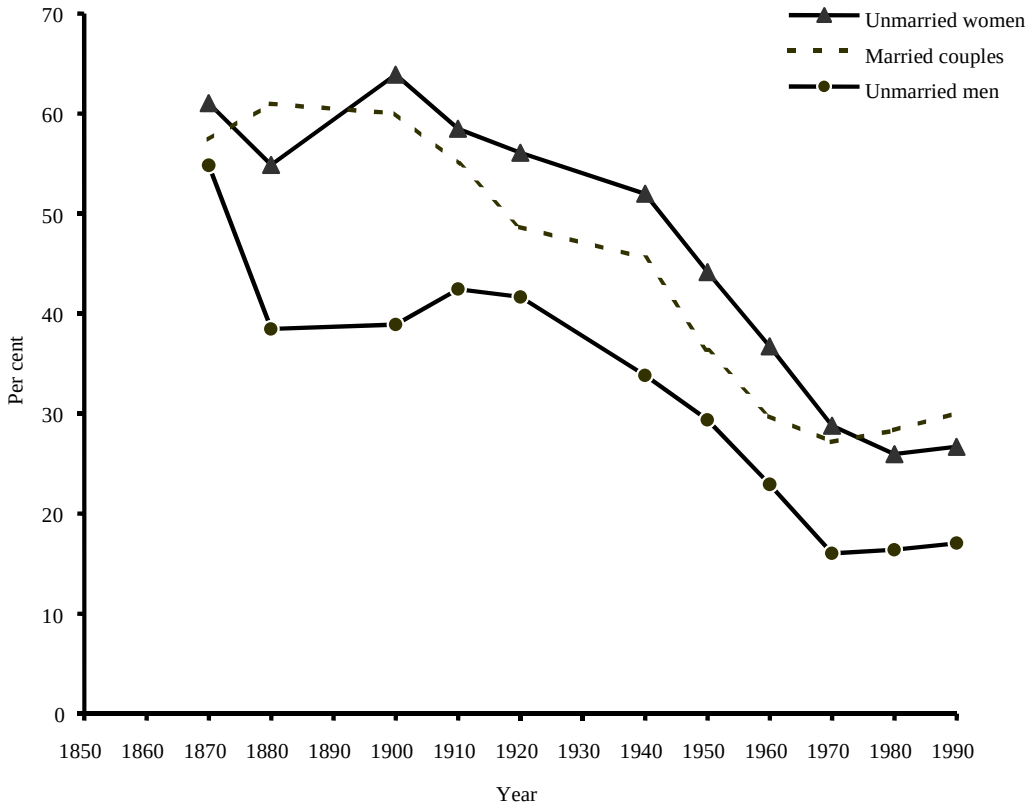


Figure IV. Percentage of persons residing with their own children, by age: United States, 1850-1990 (selected years)

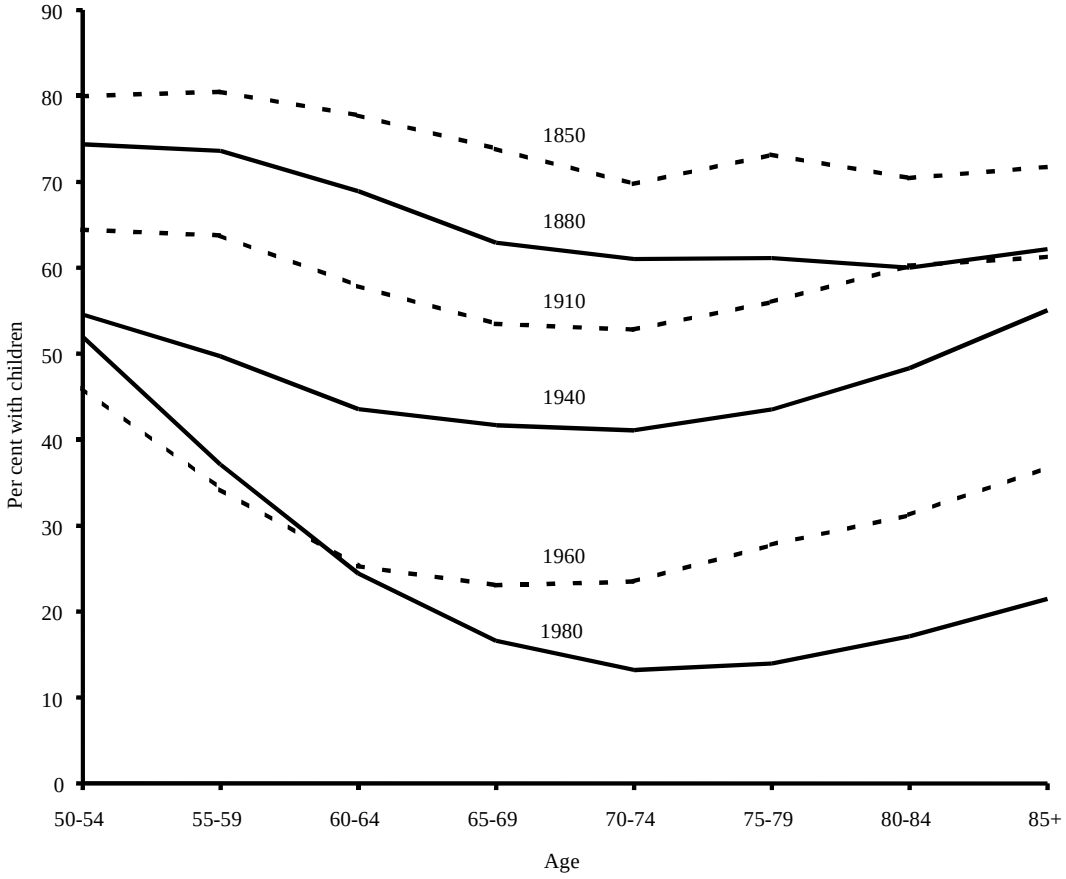


Figure V. Per cent of younger generation married, by value of real estate owned: persons residing with elderly parents, 1850-1990

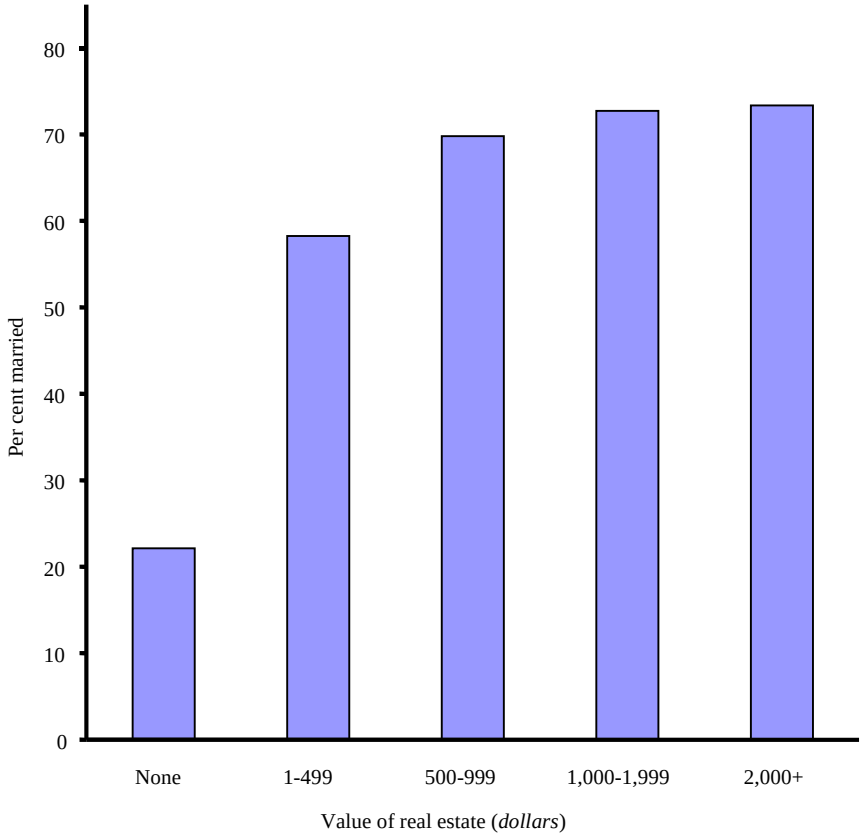


Figure VI. Per cent of sons and daughters married by sex and marital status of elderly parents: United States, 1850-1860

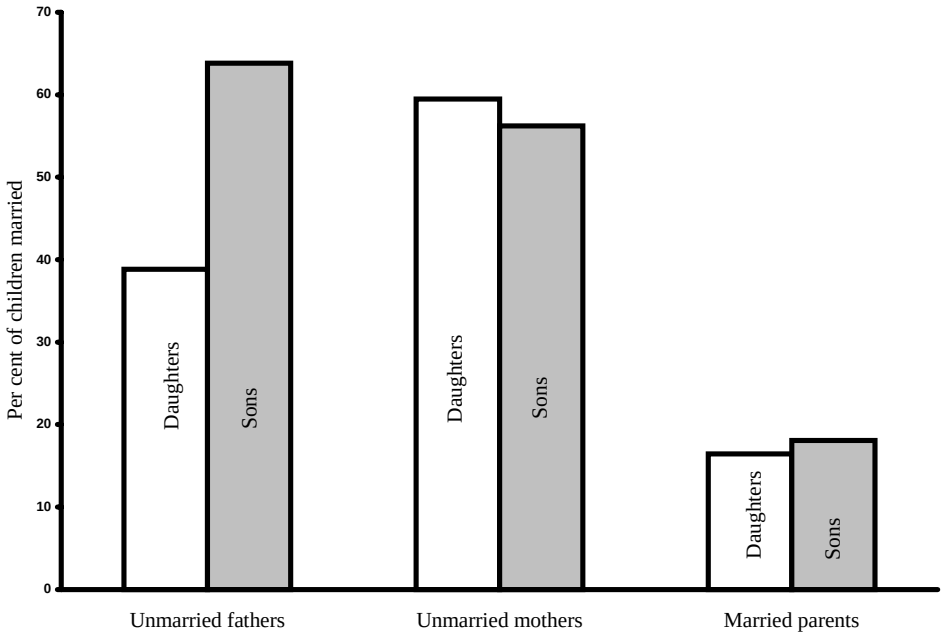


Figure VII. Per cent of elderly residing with adult children by value of real estate held: United States, 1850

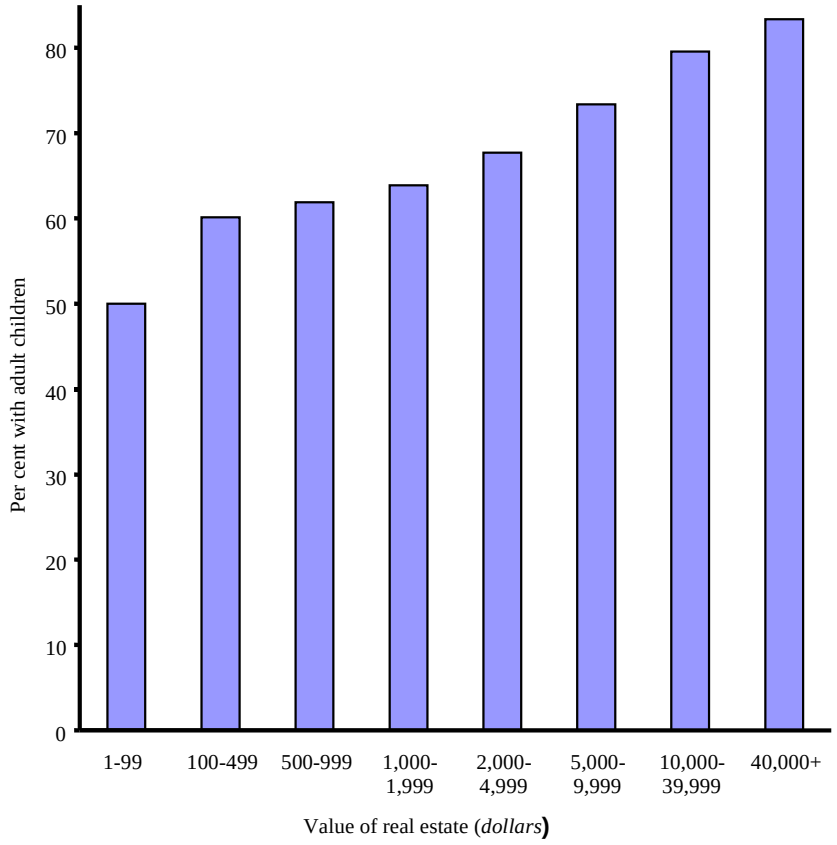


Figure VIII. Per cent of elderly residing with adult children by value of all property: United States, 1860-1870

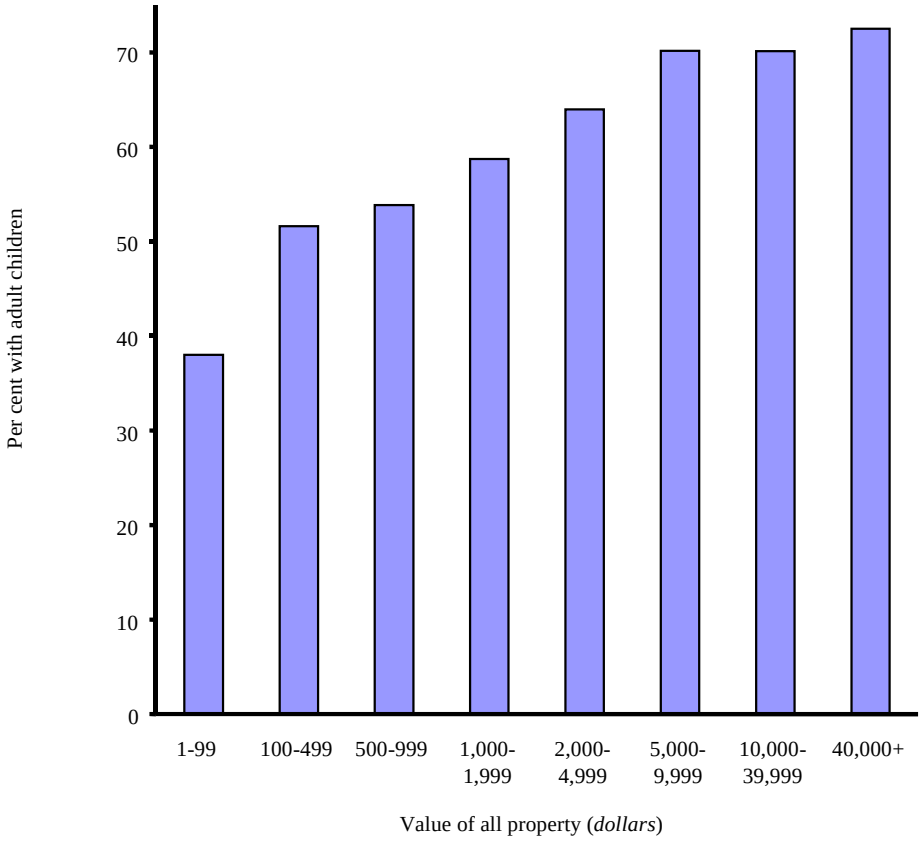


Figure IX. Per cent of elderly residing with children, by presence of servants: United States, 1880

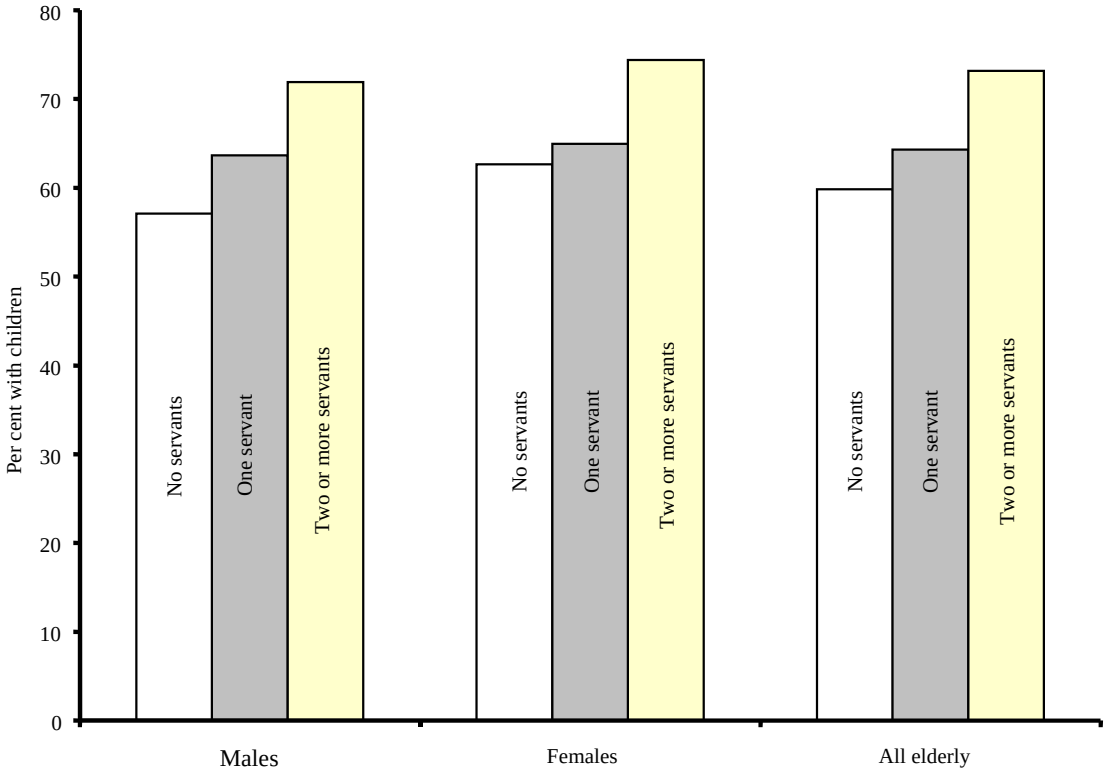
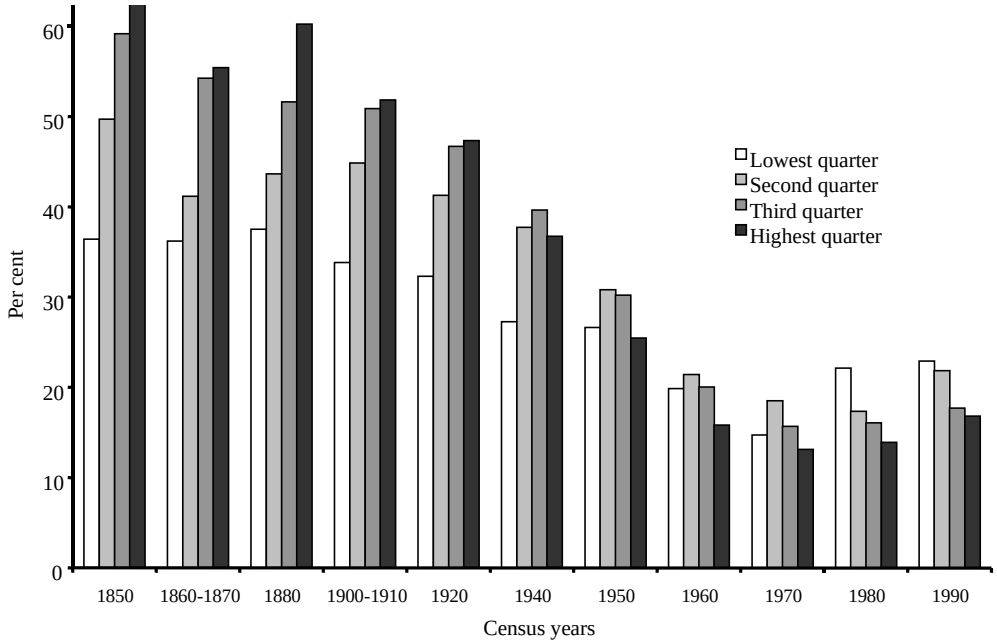
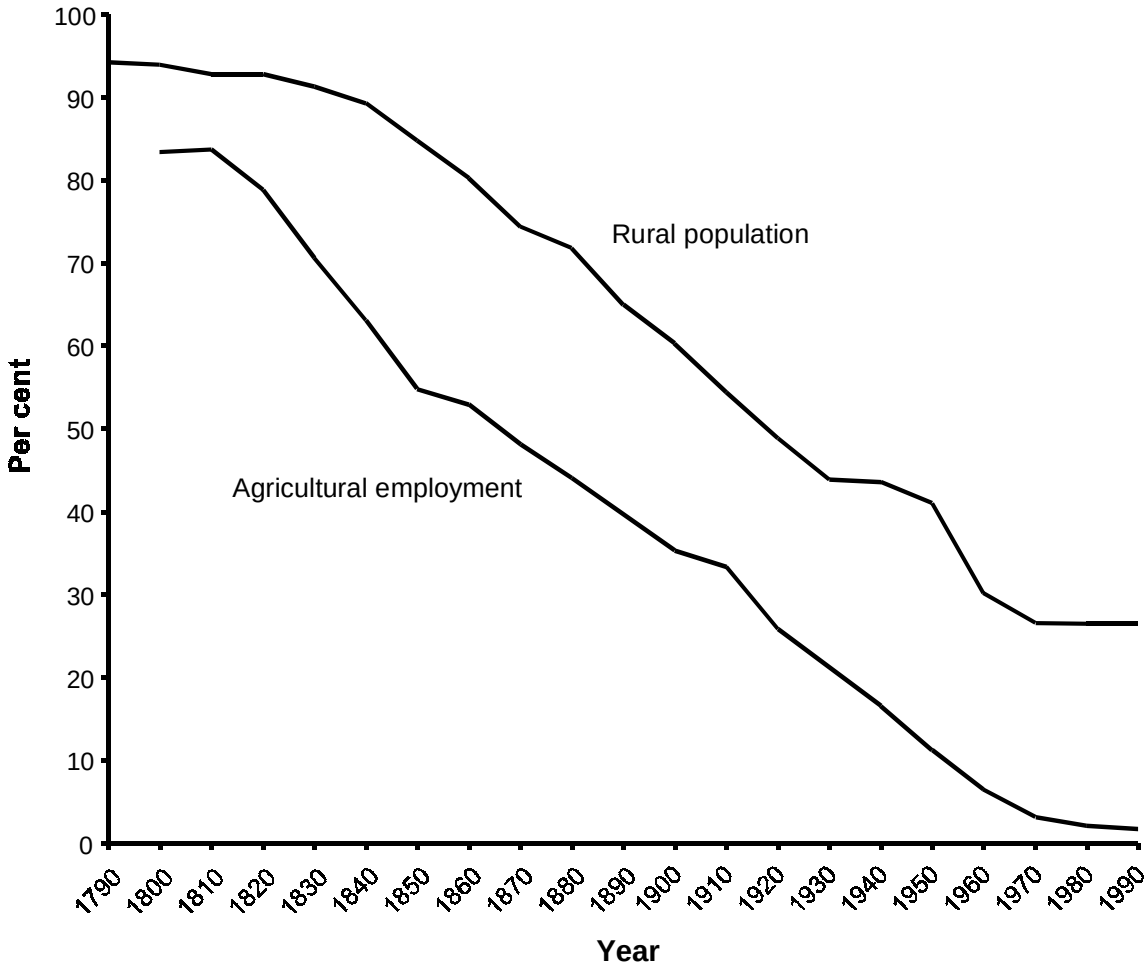


Figure X. Percentage of elderly employed men residing with adult children by occupational rank: United States, 1850-1990



Notes: Elderly defined as 65+; adult defined as 18+; 1850-1860, restricted to white population only; low-density samples (1860, 1870 and 1900, 1910) combined to obtain sufficient cases in all occupational groups.

Figure XI. Per cent of population rural and per cent of the labour force employed in agriculture, 1790-1990



Sources: Agricultural employment, 1790-1840, Lebergott (1964); 1850-1950, IPUMS; rural population, United States Bureau of the Census (1975).

Figure XII. Percentage of men employed in wage and salary work, by race: 1850-1990

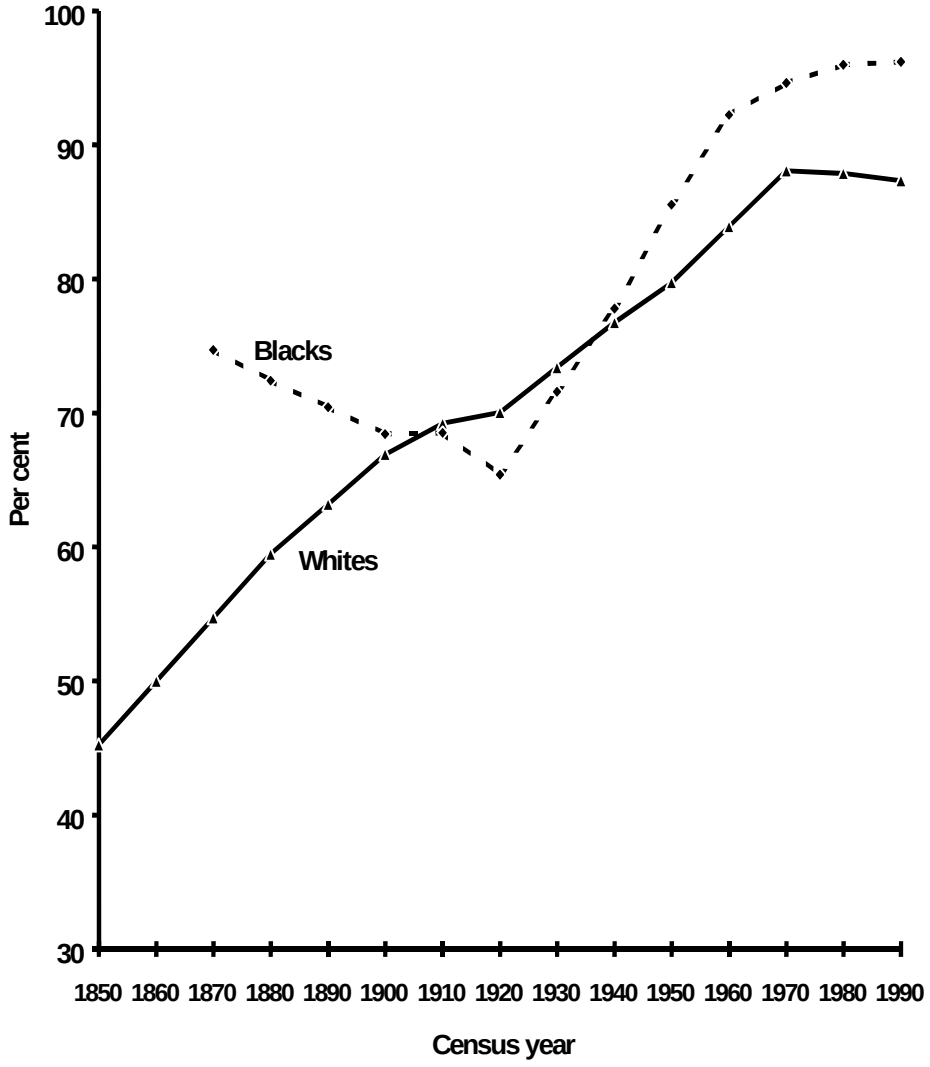


Figure XIII. Percentage of elderly residing without children, by race: United States, 1850-1990

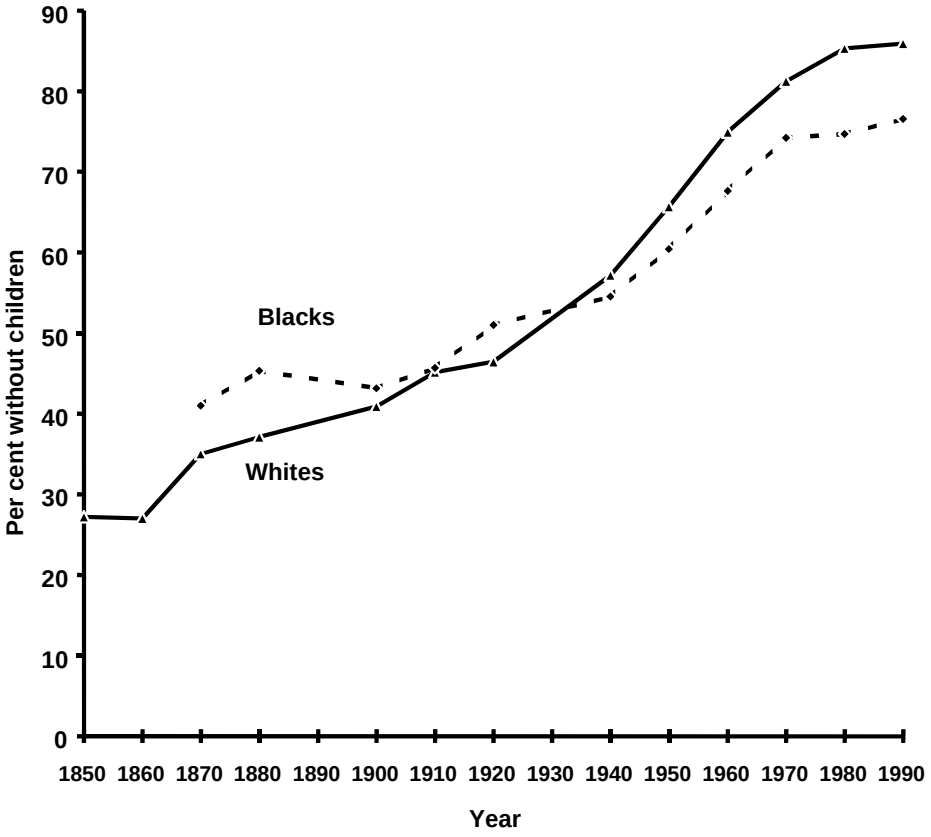


Figure XIV. Percentage of men aged 18+ with "good" jobs, by race: United States, 1850-1990

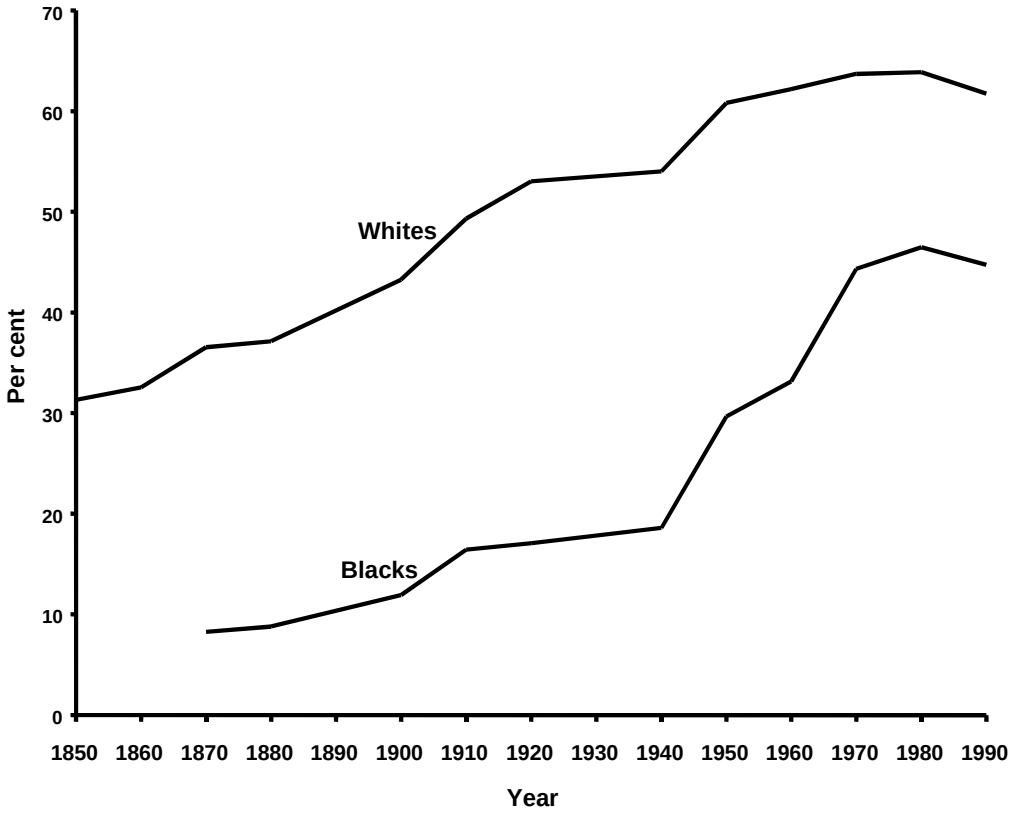


Figure XV. Scatter plot of residence with children and self-employment, 1850-1940

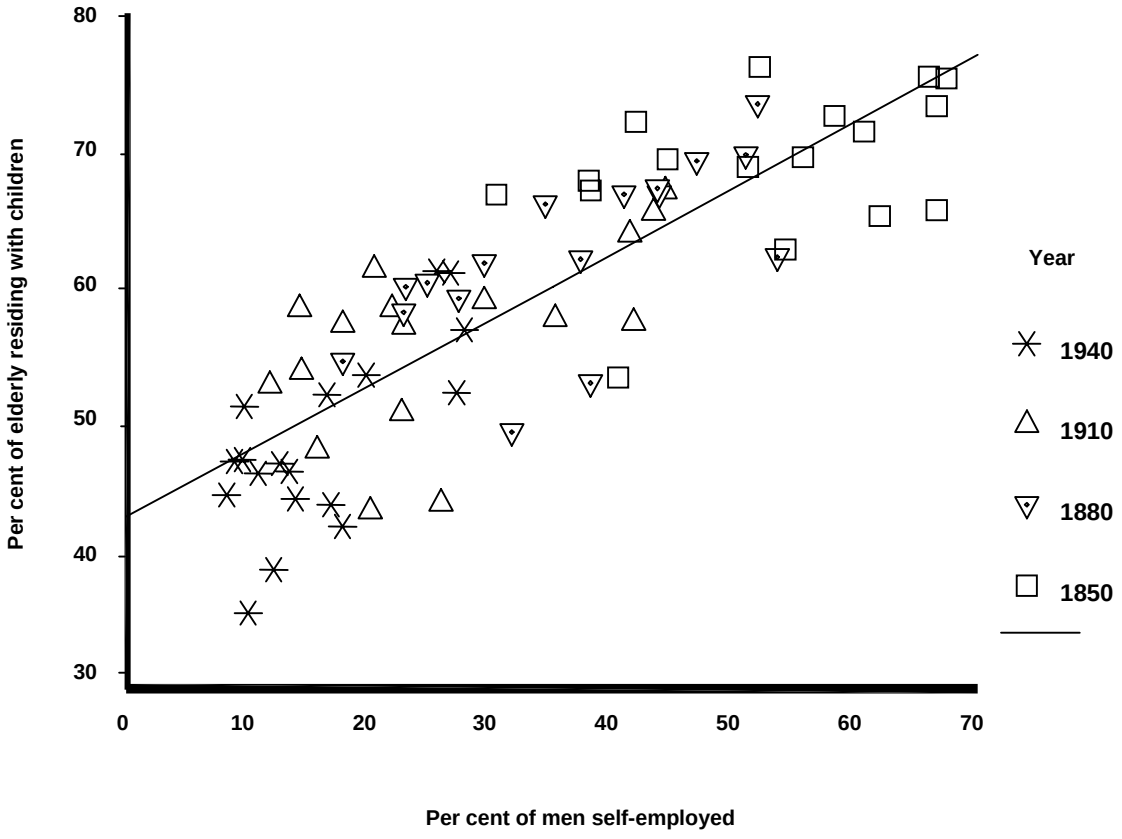
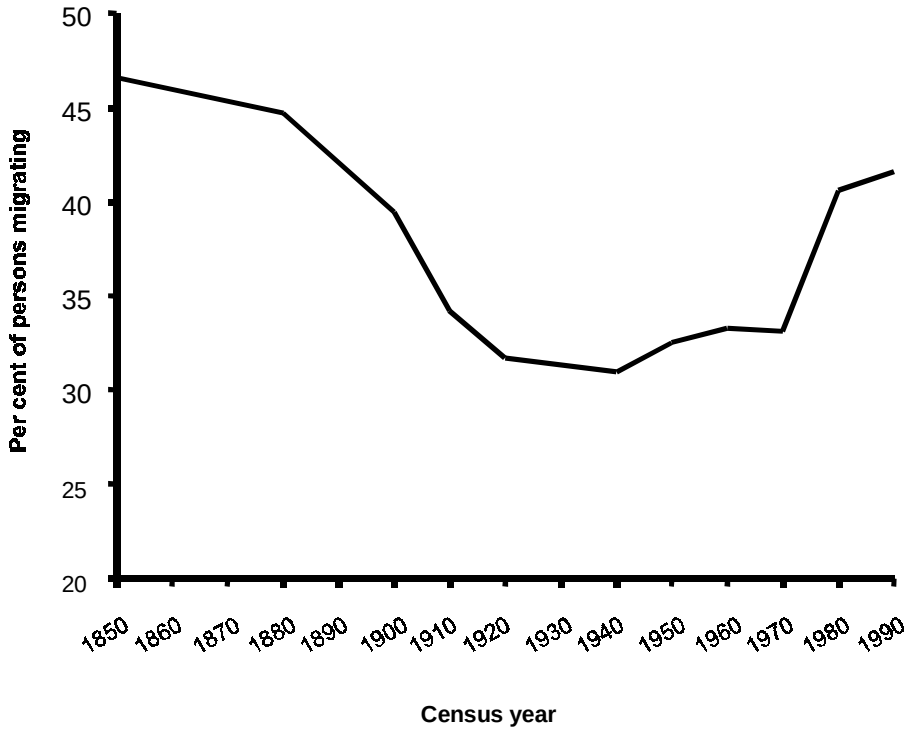
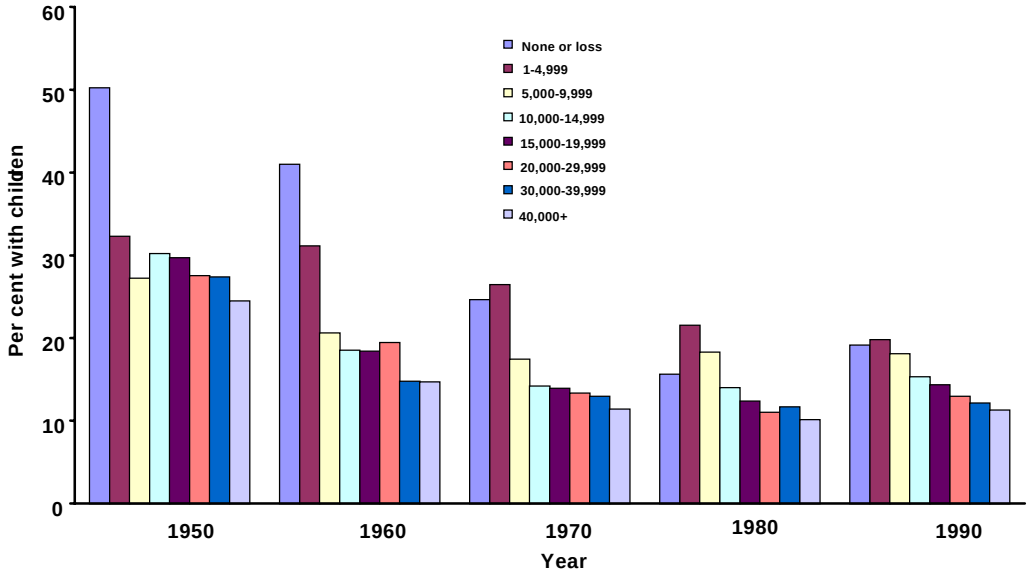


Figure XVI. Per cent of persons migrating between States by age 50-59: United States, 1850-1990



Note: Standardized to control for the changing size-distribution of State of birth.
Source: Patt Kelly Hall and Steven Ruggles, "Moving through time: lifetime internal migration patterns of Americans, 1850-1990", presented at the Social Science History Association, Forth Worth, Texas, 11-14 November 1999.

Figure XVII. Per cent of elderly persons residing with children by total income, 1950-1990



Note: Income expressed in 1990 dollars.

Figure XVIII. Percentage of elderly residing with own children, controlling for changes in income, 1850-1990

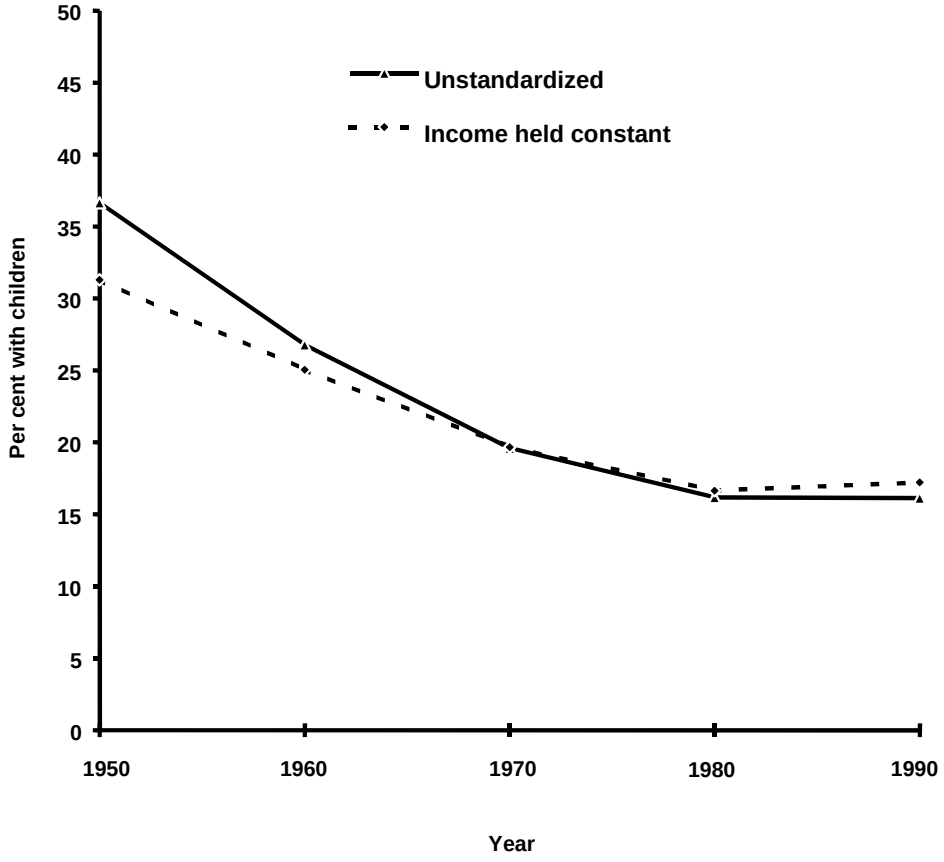
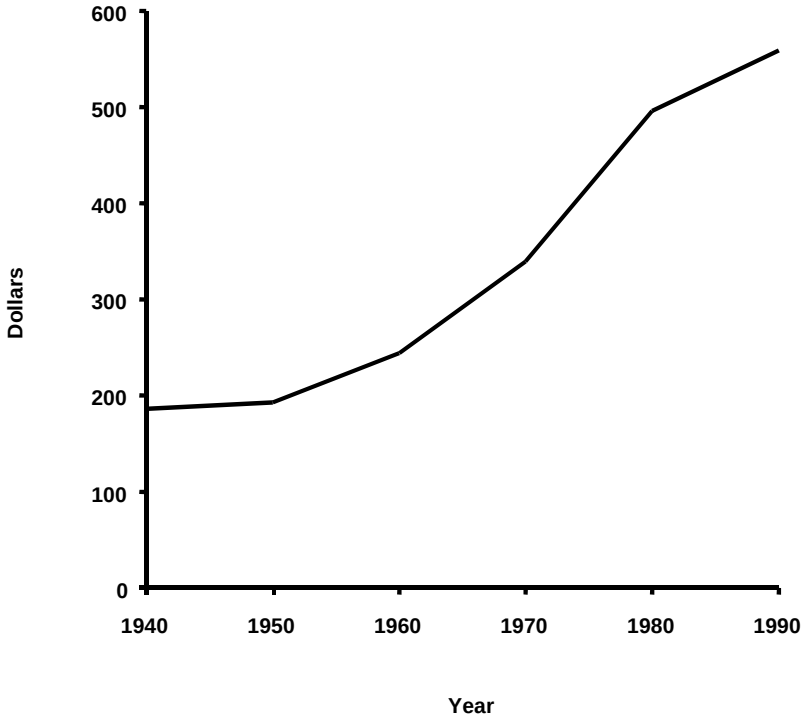
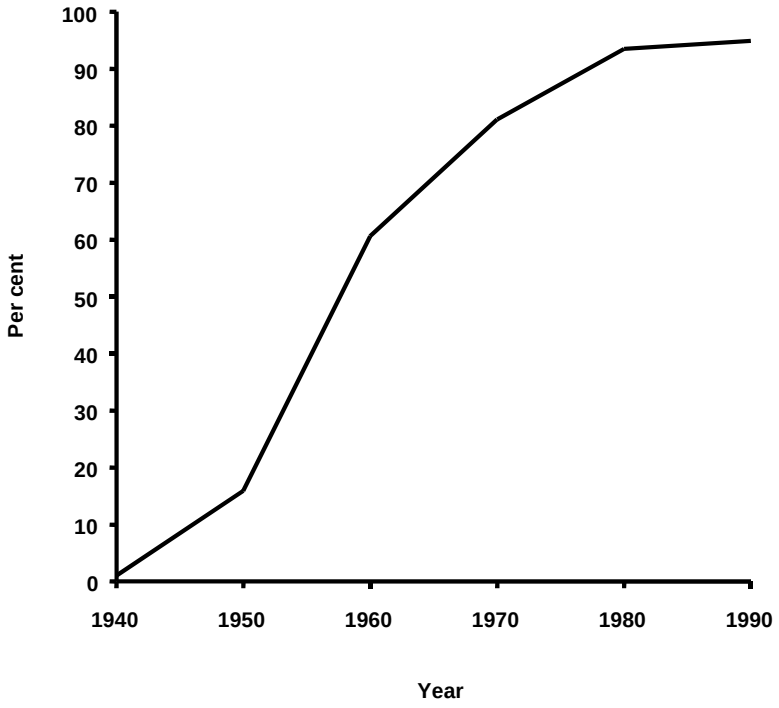


Figure XIX. Average monthly benefit of Social Security recipients: United States, 1940-1990
(1990 dollars)



Source: McGarry and Shoeni (1998), table 3.

Figure XX. Percentage of elderly receiving Social Security benefits: United States, 1940-1990



Source: McGarry and Shoeni (1998), table 3.

Figure XXI. Percentage distribution of income among elderly, 1990: total income compared with non-Social Security income

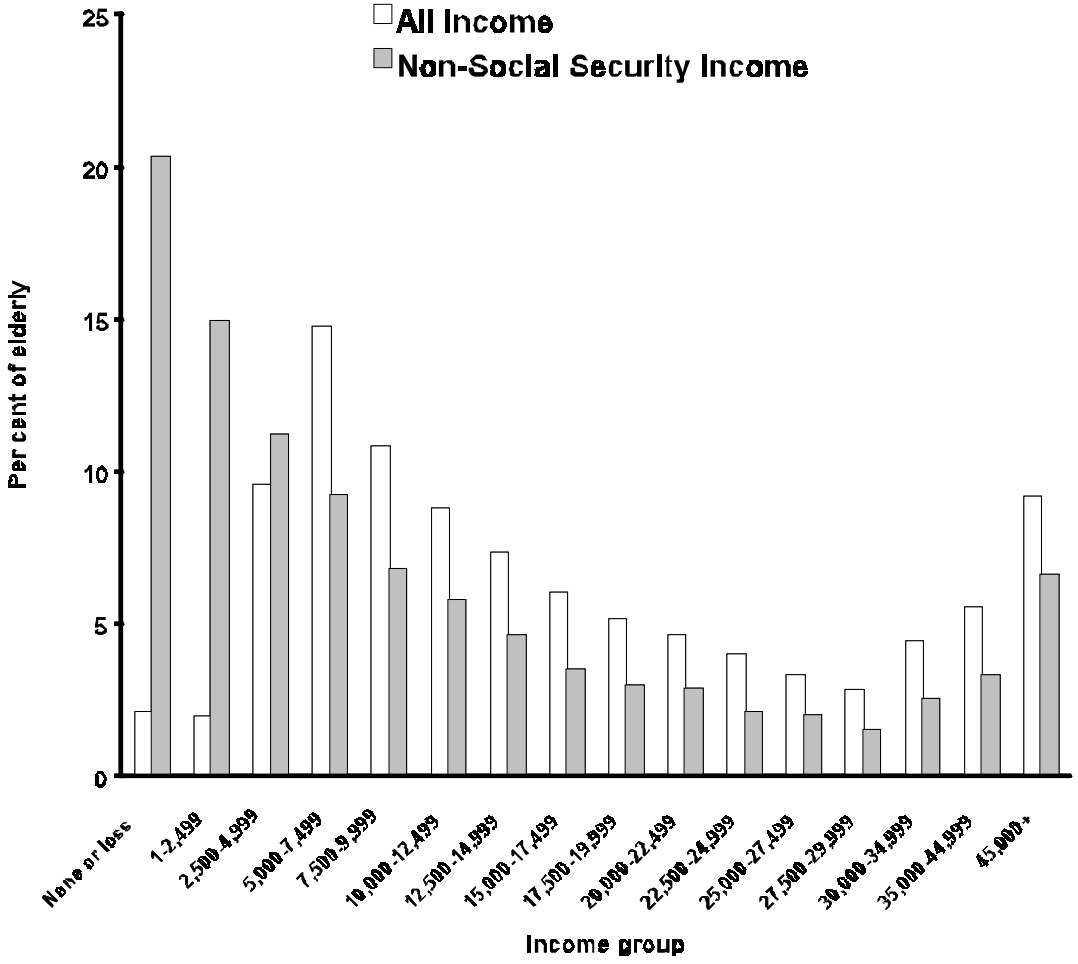


Figure XXII. Predicted percentage of elderly residing with children if Social Security income is excluded, 1950-1990