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Volume Author/Editor: Dora L. Costa

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Chapter Author: Dora L. Costa

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6   Displacing the Family

> And worse of all, my independence is gone; for now, of course, I shall have to live with one of my children, and I don't know which of us will hate it the most.
>
> An old man's lament, quoted in Epstein (1922)

The living arrangements of elderly retirees have undergone profound changes since the end of the last century. In 1880, close to half of retired men were living with their children or other relatives. Today, only 5 percent are, suggesting that the family now plays a diminished role in old-age support.

What could have displaced the dependence of the elderly on family and contributed to the rise in independent, retiree households? One possible explanation includes changes in social values and expectations. A common perception is that in the past, unlike today, "nobody ever thought of not taking care of their own."[1] Alternatively, improvements in the health of the elderly and in household technology may now enable the elderly to live alone. The leisurely retirement lifestyle that has become the postwar ideal is often possible only by resettlement to another community with a better climate or recreational amenities. Many of the elderly may no longer have the option of living with their children. Declines in fertility and increases in life expectancy at older ages have increased the ratio of aged parents to adult children, with the result that, whereas in the past the burden of care was spread among many children, today it is spread among few. Finally, rising incomes, including Social Security and private pensions, may have caused more of the elderly to live by themselves. If the elderly prefer to live by themselves rather than with their children, they will be able to do so only if they have sufficient income. In this chapter I investigate whether social values dictated different behavior in the past than today or whether increases in income have always been associated with an increased demand for the privacy and autonomy provided by separate living arrangements. If the latter proves to be the case, then rising incomes have contributed enormously to the well-being of the elderly.

First, however, I discuss trends in the living arrangements of the elderly. Many observers, noting the sharp increase in the percentage of single, elderly households after 1940, have argued that Social Security has displaced the fam-

ily as a means of financial support (e.g., Michael, Fuchs, and Scott 1980; Schorr 1960). But I will show that the percentage of retired men sixty-five years of age or older living either alone or with only their wives in the household has been rising since 1880. Many economists, demographers, and historians have been unaware of the trend prior to 1940 because it has been disguised in more aggregated statistics by the relatively low retirement rates that prevailed in the past and by the unchanging coresidence patterns of labor force participants. This chapter first examines the long-term trend in coresidence patterns among elderly males and then assesses explanations for the trend.

6.1   Trends in the Living Arrangements of the Elderly

The majority of older men have always headed their own households. Over three-quarters did in 1880 and close to 90 percent in 1990. However, the fraction of retired men heading their own households was low at the beginning of the century and has risen steadily since 1880. Among men still in the labor force, change came only after 1940 (see fig. 6.1).

Although whether an elderly man was a household head is a useful indicator of authority and independence, it is a poor indicator of whether he lived alone or surrounded by family members. Another indicator of living arrangements is the percentage of elderly men living in extended families, here defined as households where a family member other than the spouse was present. For the most part, these are households in which the adult children are present, but occasionally they include other relatives. Figure 6.2 shows that the decline in
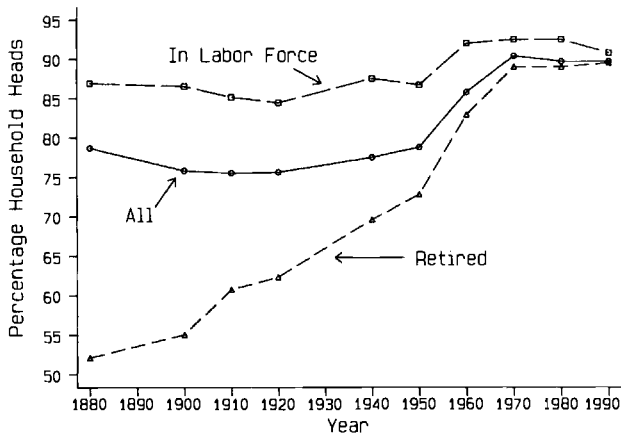

Fig. 6.1   Percentage of noninstitutionalized men sixty-five or older who were household heads, by retirement status

Note: Estimated from the integrated public-use census sample (Ruggles and Sobek 1995) using the definition of gainful employment prior to 1940 and the current definition thereafter.
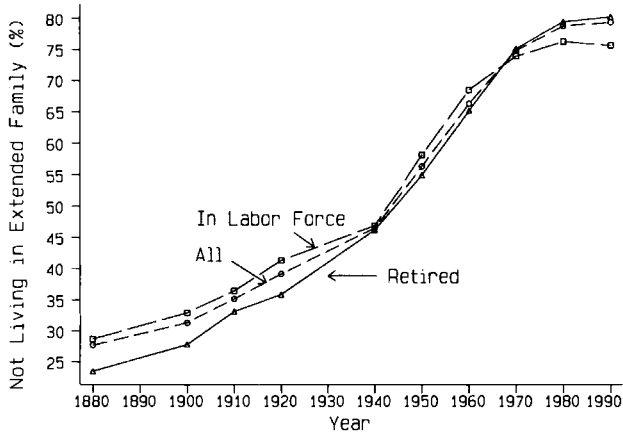
Fig. 6.2   Percentage of noninstitutionalized men sixty-five or older not living in extended families, by retirement status

Sources: See fig. 6.1.

Note: Living in an extended family is defined as living in a household in which family members other than the wife are present.

the percentage of men at least sixty-five years old living in extended families from 1880 to 1940 occurred among both the retired and those still in the labor force. However, part of the decline may be due, not to the elderly being less likely to live in the households of their children or other relatives, but to declines in the age at which children leave home, in declines in the propensity of the elderly to take in relatives, or declines in numbers of dependent children. Figure 6.3, therefore, subdivides the census data even further.

Figure 6.3 classifies living arrangements as (1) household head and living in an extended family, (2) household head and not living in an extended family, (3) not household head and living in an extended family, and (4) not household head and not living in an extended family. Men in this last category lived with friends or as boarders and never constituted more than 7 percent of the population. Men who were household heads and lived in an extended family lived mainly with their unmarried, adult children.[2] The third category of households, those that the elderly man did not head but in which he lived with his children, consisted primarily of households into which the children had welcomed their aged parents. Even at the beginning of the century, instances of children taking over the households of their parents were relatively few.[3]

Since 1880 the largest change in the residence arrangements of noninstitutionalized men older than 64 has arisen from the declining proportion living as household heads with children (see fig. 6.3). A narrowing age difference between spouses and declines in fertility have led to an earlier stopping of child rearing among men, making it less likely that an older man would have dependent children present in the household. The rise of college is another

Household Head and Living in Extended Family (%)

Household Head and Not Living in Extended Family (%)

Not Household Head and Living in Extended Family (%)

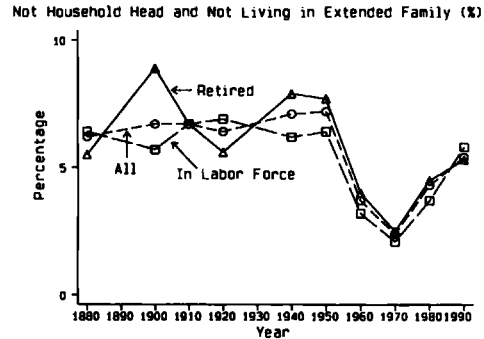## Not Household Head and Not Living in Extended Family (%)
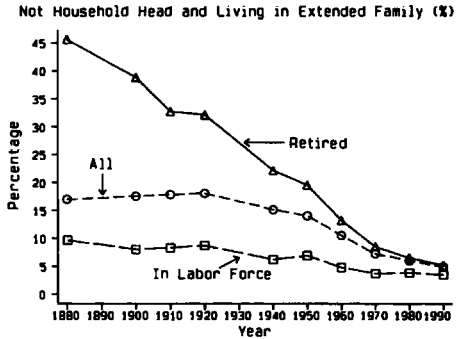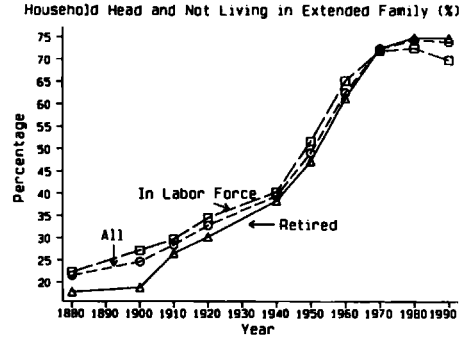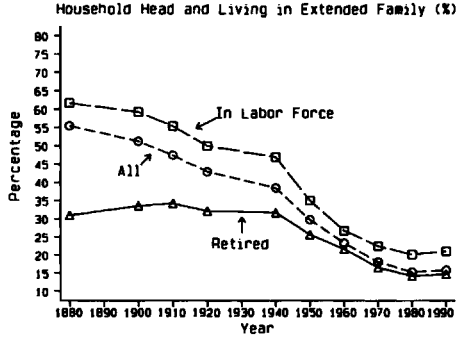
Fig. 6.3   Percentage household heads and percentage living in an extended family among noninstitutionalized men sixty-five or older, by retirement status

Sources: For sources and definitions, see figures 6.1 and 6.2.

Note: The same trends persist when all figures are reweighted to have the same age distribution as that found among retired men in 1900.

factor that may have contributed to the post-1940 decline in the age at which children leave home. The proportion living as household heads with children has been replaced by the fraction living as household heads with only a spouse. The percentage of men who were not household heads and who lived with their children or other relatives has also fallen, but the decline was not as pronounced.

Figure 6.3 shows that differences in living arrangements by retirement status were much larger in the past than they are today. Whereas at the beginning of the century the most common form of living arrangement among men older than sixty-four who were still in the labor force was as head of a household in which other family members lived, the most common form of living arrangement for the retired was coresidence with children in a household that they did not head. In contrast, the most common form of living arrangement today for both the retired and those still in the labor force is as head of a household in which only a spouse is present. For men still in the labor force, the percentage heading households in which children were present fell, and the proportion heading single, elderly households rose, suggesting that, for those still in the labor force, the largest changes in living arrangements have been caused by children leaving home. Among the retired the biggest change in living arrangements was the decline in the percentage of men living with their children, from 46 percent in 1880, to 22 percent in 1940, to 5 percent in 1990. In fact, fully 59 percent of the 1880–1990 decline in the percentage of retirees residing with their children or other relatives occurred before 1940. It is this change in coresidence among the retired that will be the focus of my subsequent empirical work. I prefer examining whether parents are in their children's households rather than whether they live in a single household to avoid controlling for differences in the age at which children leave home. Examining whether parents live in their childrens' households is also important because there has been so much change in this measure among the retired. This change is not reflected in the overall statistics because retirement rates were relatively low in the past.

The decline in the percentage of retirees residing with their children or other relatives observed in figure 6.3 occurred among the foreign and the native born, among whites and blacks, among farm and nonfarm dwellers, and in large cities and rural areas. A larger percentage of retirees lived with children or other relatives in nonmetropolitan areas in 1880 and 1900, but by 1910 the living arrangements of the retired in nonmetropolitan areas resembled those of the retired in metropolitan areas (see fig. 6.4). Early social observers noted the decline of the multigenerational family with alarm. Epstein (1922, 6) lamented that the "conditions of impotence in old age are augmented still further by the break-up of the family unit in modern society. With increasing rapidity home ties and family solidarity are being weakened and broken by the mobility so essential to modern industrial development. . . . Thousands of aged workers find themselves in a strange country without friends or relatives."

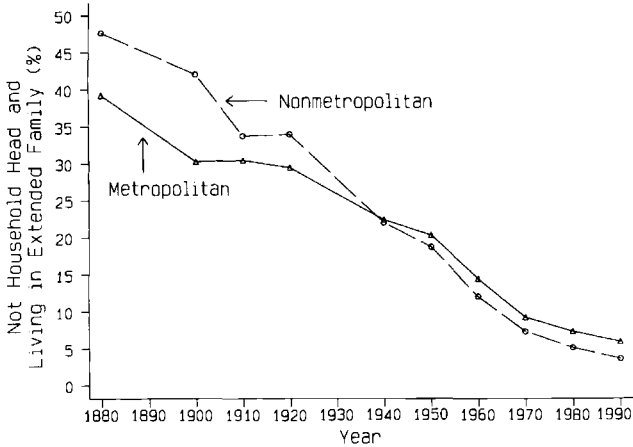Many workers, however, still could and did depend on their families for

Fig. 6.4   Percentage not household heads and living in an extended family among noninstitutionalized retired men sixty-five or older, by metropolitan status
Sources: For sources and definitions, see tables 6.1 and 6.2.

support. The 1919 Ohio Commission on Health Insurance and Old Age Pensions estimated that, in Hamilton and Cincinnati, 15–25 percent of people over age fifty were dependent on relatives or friends (cited in Epstein 1928, 50).[4] The New York State Commission on Old Age Security (1930) found that, in 1925–29, half of men and women older than sixty-four were dependent on relatives and friends. Estimates for 1937 suggest that between two-fifths and half of persons age sixty-five or older were dependent on relatives or friends and that over three-quarters were at least partially dependent on children or other family members or on friends (Shearon 1938). Wentworth (1950) reported that one of the ways Social Security beneficiaries who retired in 1941 were able to live on their retirement income was by living in joint households or receiving contributions from relatives. Figure 6.3 above indicates that more than 40 percent of retired men lived with children or other relatives in 1880 and more than 30 percent in 1920. Over time, the coresidence rates of the retired fell more sharply than those of men in the labor force, with the result that, by 1990, the coresidence rates of the retired were virtually indistinguishable from those of men in the labor force. This pattern of catch-up implies that only in the past was retirement accompanied by moves into childrens' homes or children taking over their parents' households.

Loss of independence on retirement is also seen among Union army veterans. Thirty-seven percent of men who retired between 1900 and 1910 moved on retiring, generally to another town within the same county. In contrast, only 21 percent of those still remaining in the labor force moved, and, when they did move, they tended to move longer distances. When retired men did move,

they lost their head-of-household status, generally to their children. Thirty per-
cent of all retirees who moved lost head-of-household status, compared to only
9 percent of nonretirees. Retirement clearly brought with it dependence on
family members.

The poor who could no longer work and had no children or family members
to fall back on for support, whether because they were childless, had outlived
their children, or had children too poor to support them, became dependent on
private or public charity. The 1910 Massachusetts Commission on Old Age
Pensions estimated that 3 percent of those age sixty-five or older received ei-
ther public or private poor relief and that another 3 percent were in either alms-
houses or private old-age homes. In Massachusetts, 64 percent of almshouse
inmates had no living children, and only 8 percent had children or other near
relatives judged financially able to assist them.[5]

Relatively few of the elderly have ever been institutionalized (see fig. 6.5),
never more than 6 percent of the elderly population, yet the poorhouse played
a large role in the debate over old-age pensions. The majority of almshouse
inmates (53 percent in 1904 and 67 percent in 1923) were above the age of
sixty (Haber and Gratton 1994, 123). Advocates of pensions argued that "a
pension system would take a large number of inmates out of the poor house
and put them back in their homes, and would, in general greatly reduce the
outlay for poor relief" (Massachusetts Commission on Old Age Pensions 1910,
254). Epstein (1922, 59) claimed that the "prospect of the poorhouse with its
stigma of pauperism, so detestable to the honest wage-earner, haunts him like
a dark shadow and saps every bit of his vitality." When, in *Helvering v. Davis*
(1937), Supreme Court Justice Cardozo asserted the constitutionality of the
Social Security Act, he wrote that "the hope behind this statute is to save men
and women from the rigors of the poorhouse as well as from the haunting fear
that such a lot awaits them when journey's end is near" (National Conference
on Social Welfare 1985, 129). State commissions had been less sanguine. They
judged 90 percent of almshouse residents sixty-five years of age or older to be
physically defective and believed that residents would not be able to live on
small pensions unless these were supplemented by assistance from family
members—an assistance on which most inmates could not count because few
had any living children (e.g., Massachusetts Commission on Old Age Pensions
1910; Pennsylvania Old Age Pension Commission 1919). Social Security did
empty the almshouses, but primarily because almshouse residents were ineligi-
ble for benefits. Almshouses were merely replaced by private nursing homes
in the 1930s and 1940s and by public nursing homes in the 1950s, when Social
Security rules were amended. By 1940 the percentage of the elderly population
that was institutionalized was higher than in 1920.

Although Social Security has not had an effect on institutionalization rates,
it is widely regarded as having displaced the care of the family. In the United
States today the predominant flow of monetary transfers is from the older to
the younger generation (McGarry and Schoeni 1995). In contrast, in Malaysia
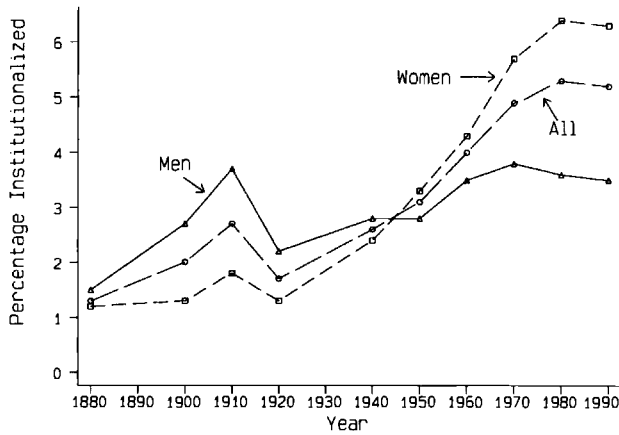monetary transfers flow primarily from the younger to the older generation

Fig. 6.5   Percentage of population age sixty-five or older currently institutionalized, men and women, 1880–1990
Note: Institutionalization rates were estimated from Ruggles and Sobek (1995).

(Lillard and Willis 1997). Malaysia was characterized by the absence of any extensive public insurance and institutional social support programs, such as Social Security, during the period of observation. Information on the extent of monetary transfers from children to parents in the United States prior to Social Security is scanty, but information on the living arrangements of the elderly provides some clues. The results of Michael, Fuchs, and Scott (1980) and Schorr (1960), suggesting that the decline in coresidence was faster among those receiving larger Social Security benefits, imply that, at the beginning of the twentieth century, the flow of transfers may have been from younger to older generations.

The likely effect of old-age pensions on the direction of the transfer of resources across generations was widely discussed even before the institution of Social Security. The 1910 Massachusetts Commission on Pensions and Annuities concluded that pensions would have a disintegrating effect on the family (cited in Epstein 1928, 227). In contrast, advocates of state-provided pensions decried the burden that dependence imposed on young and old alike and argued that both the elderly and their children would be happier if they could afford to live in separate dwellings (Epstein 1928, 144–48). They even cited the Union army pension program as building up the family because children would be more likely to find a place in their homes for parents who could partially pay their own way.[6] The old were viewed as a burden, not just on their children, but also on their children's children, who would be "doomed to undernourishment; and to a life in the midst of crowded and unsanitary quarters . . . to leave school early in life and to join the ranks of the unskilled" (Epstein 1922, 63).

The burden of the elderly should not be exaggerated. Figure 6.3 above

showed that the percentage of the retired living with family members has fallen steadily since 1880. Among those individuals heading households between 1880 and 1920 and aged eighteen to forty-four, at most 9 percent of those within a ten-year age group had a parent present in the household. Contrary to the claims of social reformers, when an aged parent was present in the household, the teenage children of the household head were less likely to be gainfully employed and were more likely to be in school than if a parent was not present, controlling for household socioeconomic and demographic characteristics.[7] So few of the elderly now live with their children that, in 1990, no more than 3 percent of children cared for their parents within their own homes.

In the past, the burden of caring for elderly parents within the same household fell primarily on the wealthier members of society. Figure 6.6 shows the relative probability that a farmer, a professional or proprietor, or an artisan aged eighteen to sixty-four would have a parent present in the household, where the probability is relative to that of a laborer.[8] Relative to laborers, professionals and proprietors at the beginning of the century were much more likely to have a parent present in the household, implying that transfers from child to parent depended on the child's earnings. Social historians have argued that, in the past, wealthy families felt obligated to take in relatives with no means of support, leading to large extended families among the wealthy (e.g., Ruggles 1987). Only the wealthy could support nonproductive kin, hence the higher probability that elderly parents would reside in the homes of professionals and proprietors rather than laborers. Lillard and Willis (1997) find that, in present-day Malaysia, the child's transfers to parents depend very significantly on the child's earnings.

Over time, the income of children became a less important determinant of whether they took in their elderly parents. From 1900 to 1950 the probability that professionals and proprietors would have a parent present in the household did not rise as quickly as the absolute probability that a laborer would have a parent present. As incomes rose between 1900 and 1950, even low-wage laborers may have been able to afford to have a parent present in the household. They may have acquired houses large enough to provide for a parent in their own homes comfortably. After 1950, the probability that a parent would be present in the household fell sharply across all occupational groups, but more sharply for professionals and proprietors than for laborers. In the aggregate, the probability of a professional or proprietor having a parent present in the household relative to that of laborer narrowed from 1900 to 1980, and by 1990 professionals and proprietors were slightly less likely to have a parent present in their households than were laborers. It is this narrowing of differential probabilities that suggests that children's income now has a lessened effect on whether their parents live in their households.

The declining probability that a parent would be present in children's households regardless of children's social class has been attributed to changing social values (Ruggles 1987; Smith 1979). In the past, children may have been more
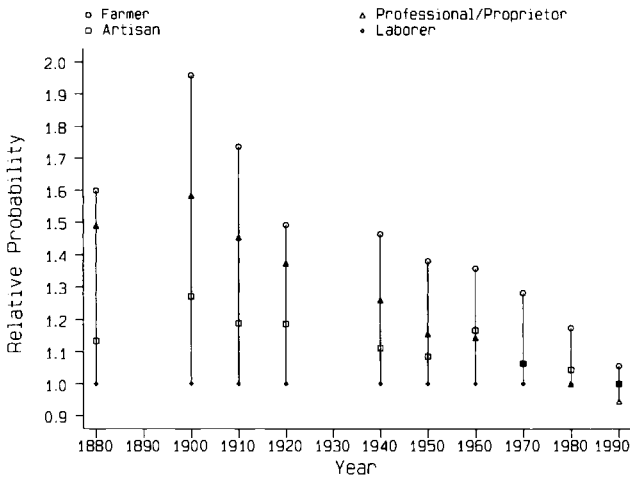
Fig. 6.6   Relative probability of having a parent present in the household, among households headed by individuals aged eighteen to sixty-four, 1880–1990
Note: All probabilities have been divided by that of laborers. Probabilities were predicted from probit regressions estimated from the integrated public-use samples and were evaluated at 1950 mean values to account for differences in household characteristics and in the age structure of the population both over time and across occupational groups.

willing to welcome their aged parents into their own homes, and more parents may have preferred to live with their children. Alternatively, rising incomes may have enabled an increasingly large fraction of the elderly to live alone. Before 1950, rising incomes and larger houses may have led more children to welcome their parents into their homes, but, after 1950, increases in retirement income, particularly among widows, who were the parents most likely to reside with children, were large enough to outweigh this effect and caused more of the elderly to live alone.

Census data provide some evidence that the elderly with higher incomes are more likely to live alone. As seen in figure 6.7, which plots the probability that an older man employed in a particular occupation would head his own household relative to the probability that a laborer would, nonlaborers have always been more likely than laborers to head their own household.[9] But, after 1950, differences in living arrangements narrowed sharply, suggesting that income is now a less important indicator not only of whether children take in their elderly parents but also of whether the employed elderly live with their children. Perhaps only those families with special needs or strong preferences for living together now do so.

It is not possible to use the early censuses to test whether rising incomes induced more of the retired elderly to establish living quarters separate from those of their children. No information is available on the incomes of the retired. But it is the rise of single households among the retired that has been the
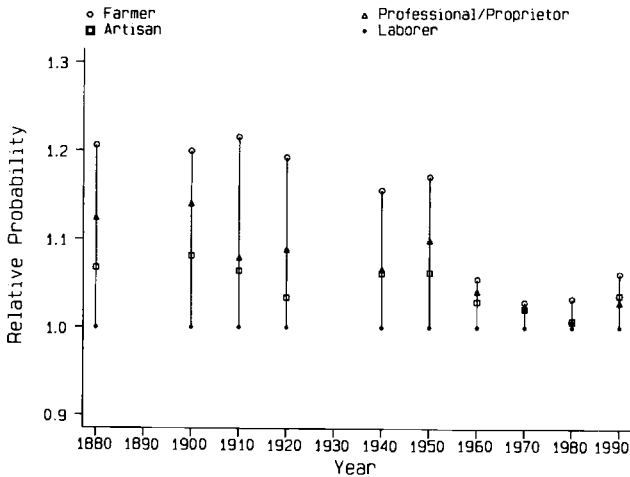
Fig. 6.7   Relative probability of heading own household, men sixty-five years of age and older and in labor force, 1880–1990

Note: All probabilities have been divided by that of laborers. Probabilities were predicted from probit regressions estimated from the integrated public-use samples and were evaluated at 1950 mean values.

ongoing, long-term process. Work using cross-sectional data from the 1960s and after suggests that income has a small effect on the propensity of the elderly to live alone (Börsch-Supan et al. 1992; Schwartz, Danziger, and Smolensky 1984; cf. Michael, Fuchs, and Scott 1980), but the applicability of these estimates to periods prior to 1940 is questionable. Fortunately, Union army pension income can be used as a test of revealed preference to determine whether coresidence or independent living was preferred by retired, elderly men at the beginning of the twentieth century.

6.2   Pensions and Living Arrangements

The living arrangements of the elderly are the outcome of a joint decision between adult children and their aged parents or relatives. A bargaining model—that is, a model in which individual, not family, resources matter— would predict that, because Union army pensions were so large, representing 30 percent of the average income of a manufacturing worker in 1910, they would enable veterans to live either on their own or with their children and thus to pick their preferred residence option. Parents who wished to live with their children may have offered them financial transfers as compensation for the children having to listen to interminable Civil War stories. In return for transfers, parents may have received free market goods and services that might otherwise have had to be provided by the pensioners themselves, their spouses, or hired help. They would also have been near their grandchildren. But elderly

retirees who chose to live with their children may have been more constrained in their choice of consumption bundles. For example, they may not have been able to increase the size of their living space and therefore guarantee themselves a certain amount of privacy.

In contrast to the bargaining model, a model of altruism predicts that total family income, not individual income, determines living arrangements. Children who take their parents into their homes will be motivated, not by the prospect of financial transfers, but by the knowledge that their parents were being taken care of. The elderly who live alone do so, not because they can afford it, but because the family can afford it. Thus, children might transfer income to their parents to enable them to live on their own. Pension income would either partially or wholly displace children's transfers. If pension income is relatively small, then pension amount might have either no or very little effect on the living arrangements of the elderly. But, because Union army pensions represented over 30 percent of average yearly income, the implied substantial increase in total family income should have affected the living arrangements of the elderly.

I cannot observe the children's decision; I can observe only the veteran's decision. I subdivide this decision into two stages. The veteran first determines the best bundle of goods and household services that he can obtain under either living arrangement given his income, in the case of a bargaining model, or both his and his children's income, in the case of an altruism model. Although his income does not depend on the coresidence decision, the prices that he faces for market goods and household services such as meal preparation and personal care will vary. For some goods, he may face an infinite price under the coresidence option because he will have lost some degree of autonomy in his choice of goods. Utility when independent of family members can therefore be written as $U_i(C_i^*; Z)$ and utility when living with family members as $U_d(C_d^*; Z)$, where C^* is the consumption bundle that is chosen, and Z is a vector of demographic variables and of utility shifters such as age and ethnicity. If $U_i(C_i^*; Z) \geq U_d(C_d^*; Z)$, the veteran will maintain an independent household. Transforming the utility functions into indirect utility functions, the veteran will maintain an independent household if $V_i(p_i, y; Z) \geq V_d(p_d, y; Z)$, where p_i is the price of the bundle when independent, p_d is the price of the bundle when dependent, and y is income. Therefore, if the indirect utility functions are assumed to be linear in their arguments, the utility-maximizing individual evaluates the decision function

$$I^* = V_i(p_i, y; Z) - V_d(p_d, y; Z).$$

Although the value of I^* is not observed, several indicators of living arrangements are, such as whether an individual was a household head or whether the individual ever lived with extended family members.

Figures 6.8 and 6.9 suggest that Union army pensions determined the living

Fig. 6.8 Comparison of percentage household head or percentage not living in extended family, by retirement status, between Union army sample and random samples of white veterans and nonveterans aged sixty to eighty-seven, 1910

Note: The random sample was drawn from the integrated public-use sample of the 1910 census (Ruggles and Sobek 1995) and was restricted to white, noninstitutionalized men who either were born in a Union state or, if foreign born, immigrated prior to the Civil War. Veterans and nonveterans are identified in the sample. The random sample was reweighted to have the same geographic distribution as the Union army sample. Reweighting by age would not materially change the results. The main difference between the Union army sample and the national sample of either veterans or nonveterans is rural residence, not age. Living in an extended family is defined as living in a household in which family members other than the wife are present.
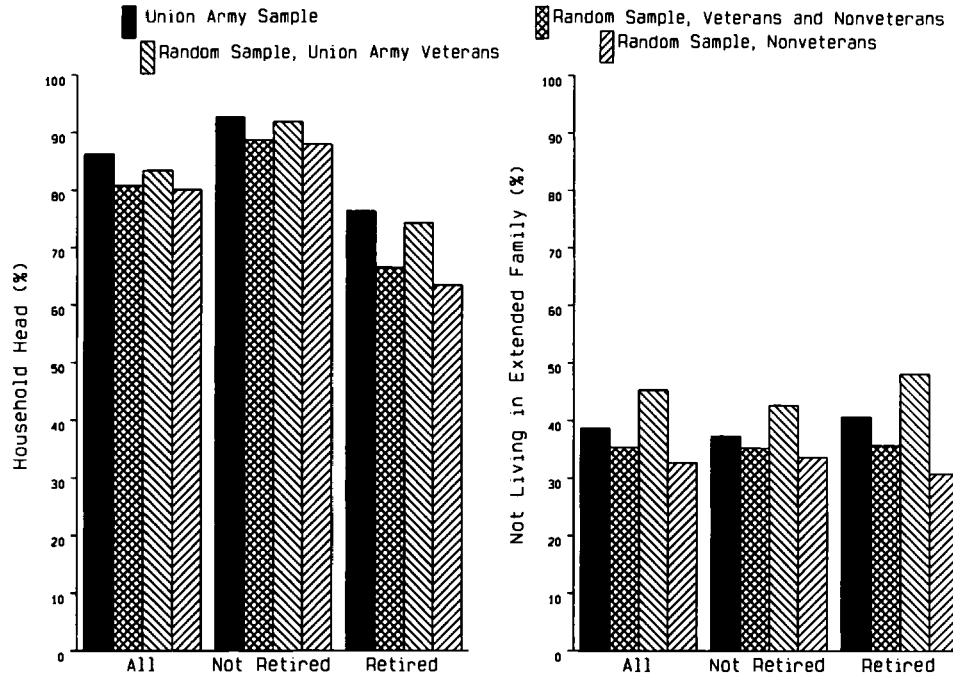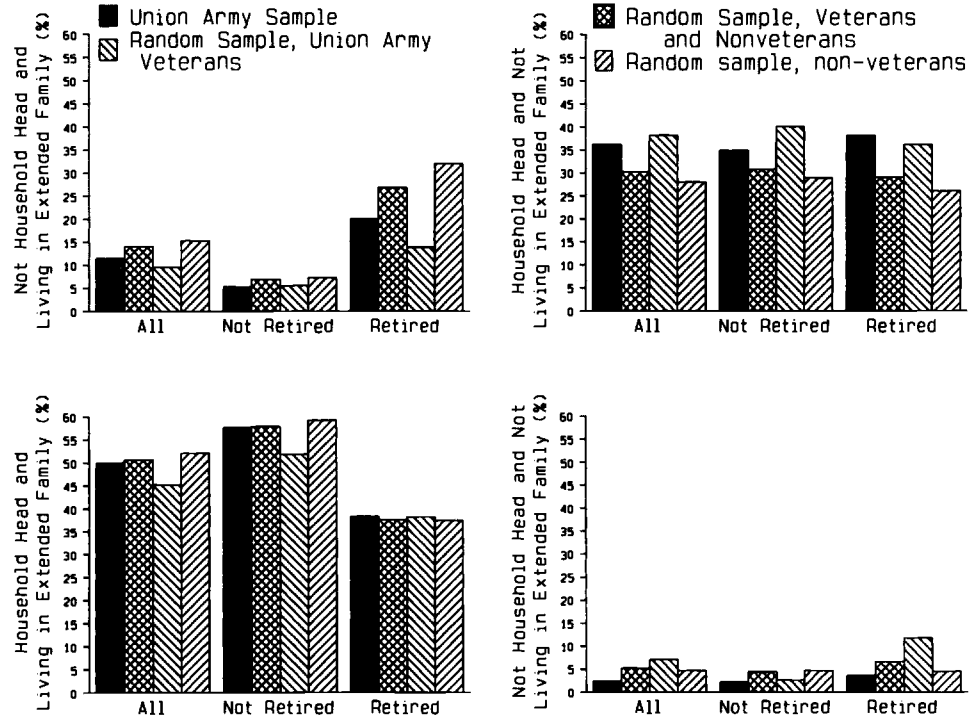
Fig. 6.9 Comparison of percentage household head and percentage not living in extended family, by retirement status, between Union army sample and random samples of white veterans and nonveterans aged sixty to eighty-seven, 1910

Sources: See table 6.8.

Note: Living in an extended family is defined as living in a household in which family members other than the wife are present.

arrangements of the elderly. Seventy-six percent of retired men in the Union army sample and 74 percent in the random sample of Union army veterans were household heads in 1910. But only 64 percent of retired nonveterans were household heads. The percentage of retired Union army veterans living with no family members other than their wives was 41 percent in the Union army sample and 48 percent in the random sample. In contrast, 31 percent of retired nonveterans in the random sample were living with no family members other than their wives. Figure 6.9 suggests that there were large differences by veteran status in the percentage of older men living without any children in the household and in the percentage of older men living as dependents in their children's homes. Thirty-eight percent of retired veterans in the Union army sample and 36 percent in the random sample headed families consisting only of the elderly couple. Only 26 percent of retired nonveterans did so. Twenty percent of retired veterans in the Union army sample and 14 percent in the random sample lived with a relative who was the household head. In contrast, 32 percent of retired nonveterans in the random sample did so.[10]

Figure 6.9, therefore, suggests that the probability of parents living with their children as dependents depended on the parents' income. Recall that I will be examining this variable in the subsequent empirical work. The probability of parents heading households in which there were no children present depended both on their income and on whether their children had left home. But there were no differences in the percentage of retirees heading households in which children were present, suggesting that whether children remained in a household headed by their elderly parents did not depend on their father's veteran status.

Although both figures 6.8 and 6.9 are suggestive, they are inconclusive. Veterans are a selected sample. Lower morbidity rates or higher incomes among veterans may have decreased their probability of living in their relatives' households relative to that of nonveterans. Therefore, I compare living arrangements among retired veterans controlling for characteristics such as health, previous occupation, and property ownership. Provided that I control for age and health, I will be able to identify a pension effect.

Rewriting the utility-maximizing veteran's decision function,

$$I^* = V_i(p_i, y; Z) - V_d(p_d, y; Z)$$

$$= -X'\beta + \varepsilon,$$

where ε is a standard normal error term, and X is a vector containing the vector of demographic and socioeconomic variables and of utility shifters Z, income y, and prices of consumption bundles p_i and p_d under the independent living and coresidence options, respectively. Although I cannot directly observe the prices that a veteran faces, I can observe such characteristics as marital status that will determine the price of household goods the veteran faces. Although I

cannot observe household income, I can observe pension income and such proxies for other household income as past occupation. I cannot observe the children's earnings. But, if the altruism model holds, total family income determines the coresidence decision. If a bargaining model holds, children's income might determine coresidence if children give transfers to parents to avoid coresidence. In fact, figure 6.6 above showed that the probability that a child would have a parent present in the household was much greater for wealthier children, children who were either farmers or professionals or proprietors rather than laborers. Low-wage laborers may not have been able to afford to welcome their parents into their homes, nor might their parents have wanted to move into the cramped quarters of a laborer. Fortunately, omitting children's earnings from my empirical specification will not bias my estimates of the effect of pension income on the probability of coresidence. Pension income and children's earnings are unlikely to be correlated. Most individuals received pensions only after 1890, long after they had invested in their children's human capital.

The value of I^*, the difference in utilities under either residence option, is also not observed, but a discrete headship indicator is observed, given by

$$I = \begin{cases} 0 & \text{if } I^* < 0, \\ 1 & \text{otherwise,} \end{cases}$$

where 1 represents dependence and 0 independence. The probit equation that is then estimated is

$$\text{prob}(I = 1) = \text{prob}(\varepsilon < X'\beta) = \Phi(X'\beta),$$

where $\Phi(\ )$ is a standard normal cumulative distribution function. Because independent living is costly, a veteran with a high pension will have less of a need for the free market goods and household services that he can obtain with coresidence than a veteran with a low pension. Therefore, two individuals identical in all characteristics except pension income may be expected to have different living arrangements. If the individual with the low pension picks the coresidence option while the individual with the high pension does not, this suggests that independent living is preferred to coresidence. Only insufficiency of income inhibits it.

In comparing living arrangements among retired veterans controlling for characteristics, the measure of coresidence that I use as a dependent variable is a dummy variable equal to one if the veteran lived in a household that an extended family member headed. This measure is a useful indicator of dependence on family members. Recall that this measure differs across veterans and nonveterans and that the secular decline in this coresidence indicator has been ongoing since 1880.

The sample is restricted to noninstitutionalized veterans who had retired by 1910. The control variables are derived from the 1900 and 1910 censuses and

the pension and surgeons' records. They include number of children, health, age, changes in marital status between 1900 and 1910, property ownership in 1900, occupation, literacy, foreign birth, extent of urbanization in county of residence, and geographic region. Foreign birth may determine social norms governing the living arrangements of the elderly. The previous chapter discussed differences in farmers' retirement and subsequent living arrangements by ethnicity. Those who are older and those who are in poor health may find it more costly to maintain their independence. Changes in marital status should matter to the residence decision because the spouse may provide a stream of household services that are not so easily or cheaply replaced by hired help but may be replaced by a daughter or daughter-in-law. More important, hired help may be a poor substitute for the companionship of family members. The number of children will matter because only those with children can be dependent on their families. Property ownership and occupation in 1900 will be proxies for wealth holdings, but property ownership might also reflect any difficulties in liquidating assets. Property ownership is known only for men who were household heads in 1900. Therefore, the lack of property is also an indicator of 1900 living arrangements, which will be correlated with 1910 living arrangements among those who had retired in 1900.

The probit results are presented in table 6.1. A $1.00 increase in monthly pension amount lowered the probability of coresidence by 0.0075. Evaluated at the pension means, the elasticity of coresidence with family members with respect to pensions was -0.77 ($= -0.0075$ [18.93/0.1847]). No sharp changes in coresidence at specific pension amounts could be detected. Interactions of pension amount with age dummies, health, and occupation yielded coefficients that were small and insignificant. There were no sharp changes in coresidence at the ages at which Union army veterans became eligible for a larger pension. The coresidence decision of those in higher-paying occupations was less sensitive to pension income, but the effect was very small and insignificant.

Because Union army pensions represented a pure income effect, the estimated elasticity of coresidence with family members with respect to Union army pensions can be used to determine the effect of increases in income on coresidence rates. Assuming that the assets of the elderly kept pace with per capita GNP and increased by 32 percent between 1910 and 1940, the estimated elasticity implies that up to 86 percent of the decline in coresidence rates between 1910 and 1940 can be explained by increases in income.

Other important cross-sectional determinants of coresidence were age and changes in marital status. The probability of coresidence was lower at younger ages. Changes in marital status raised the probability of coresidence by the substantial amount of 0.1861. When pension amount was interacted with the dummy indicator for changes in marital status, the results were inconclusive but suggested that pensions were especially likely to affect the coresidence decisions of widowers. Pensions do not appear to have affected the remarriage decision. In a national sample, Union army veterans were not significantly

Table 6.1   **Probit of Probability of Living with Family Members as Dependent among Retirees, with Coresidence as the Dependent Variable (361 observations, pseudo R^2 = .27)**

Variable	Mean	Coef.	S.E.	$\partial P/\partial x$
Dummy = 1 if coresiding	.20			
Constant		−8.5004‡	1.3185	
Monthly pension	18.93	−.0384†	.0198	−.0075
Age in 1910	71.50	.1021‡	.0186	.0198
Number of children	3.61	.0889	.1041	.0173
Number of children squared	20.91	−.0109	.0117	−.0021
Dummy = 1 if:				
Poor health	.37	.1345	.1984	.0261
Health status unknown	.09	−.0168	.3142	−.0033
1900 occupation:				
Professional or proprietor	.16	−.0373	.2616	−.0073
Artisan	.13	−.0388	.2948	−.0075
Laborer	.20	−.1982	.2622	−.0385
Owned no property	.29	.7822‡	.1956	.1520
Illiterate	.07	−.5635	.4227	−.1095
Foreign born	.10	−.6469	.3392	−.1257
Marital status changed	.18	.9296‡	.2028	.1806
Lives in Midwest in 1910	.88	.3282	.3093	.0638
100 or more people per square				
mile in county residence in 1910	.20	.3653	.2224	.0710

Note: The omitted dummies are good 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 is $\partial P/\partial x$ is in probability units.
Source: Costa (in press).

more likely to have remarried compared to their nonveteran counterparts. Although changes in marital status are an important explanation of coresidence in this cross section, the decreased probability of an older man being widowed could not explain the decrease in coresidence from 1910 to 1940. The percentage of men older than sixty-four who were married remained unchanged, at around 67 percent, between these years. However, since 1940 older men's probability of being widowed has fallen sharply. In 1990, 77 percent of men older than sixty-four were married.

The number of children, whether included linearly or as a spline, was insignificant. But the signs on the coefficients suggest that those with fewer children were less likely to coreside with their extended family as dependent relations, a finding consistent with numerous studies using recent data (e.g., Wolf 1994). The point estimates should therefore be used to investigate the effect of kin availability on coresidence. The elderly aged sixty-five or older in 1910 had on average 3.5 surviving children, those in 1940 2.2, and those in 1990 2.0.[11] The decrease in the number of surviving children between 1910 and 1940 could

therefore account for a 0.03 decline in the probability of coresidence, or 30 percent of the actual decline. From 1940 to 1990 the decrease in the number of surviving children predicts only a 0.003 decline in the probability of coresidence, less than 2 percent of the actual decline.

Occupation was an insignificant predictor of coresidence. Not owning property was a significant, positive predictor, but only because those who were not households heads in 1900, and hence owned no property, were more likely to coreside with family members. When the sample is restricted to men who were household heads in 1900, the coefficient on property ownership still suggests that the wealthier were less likely to reside with a family member who was a household head, but the coefficient was not statistically significant. Ethnicity remained insignificant even when the foreign born were divided into ethnic Germans and other foreign born.

Population density was not a significant predictor of the living arrangements of the elderly, but in a national sample coresidence was less likely among the retired living in a metropolitan rather than a nonmetropolitan area in 1910. Recall that figure 6.4 above showed that, by 1910, metropolitan and nonmetropolitan rates of coresidence were fairly similar and that, by 1950, coresidence rates were higher in metropolitan than in nonmetropolitan areas. Thus, the increasing urbanization of the United States is an unlikely explanation for the long-term decline in coresidence rates.

The coefficient on poor health is insignificant, but its sign implies that those in poor health were more likely to pick the coresidence option. Its insignificance is consistent with findings from recent data that most health variables—with the exception of those indicating a severe disability, such as difficulty in meal preparation, money management, and phone use—are not associated with the probability of living alone (Wolf 1990). Although the proportion of the population that is severely disabled probably has fallen, this improvement would be hard to quantify until more detailed diagnostic information becomes available.[12]

Although pensions were supposed to be awarded regardless of the veteran's financial status, employees of the Pension Bureau may have awarded higher pensions to those living with their families if they regarded coresidence as an indicator of need. Pension amount is therefore potentially endogenous. Therefore, I use whether a recruit applied under the General Law as an instrumental variable. As in chapter 3, I estimate a probit model with an endogenous explanatory variable using two-stage conditional maximum likelihood estimation (Rivers and Vuong 1988) under the assumption that the indicator variable for whether the recruit applied under the General Law is a legitimate instrument. A Hausman test for exogeneity of pension amount suggests that endogeneity is not a problem. Table 6.2 compares the derivatives of the probit estimates with those from a two-stage conditional maximum likelihood procedure among the men for whom information on the law that they applied under is available. The first-stage estimates are also presented. The change in the coef-

Table 6.2   **Comparison of Derivatives from Probit and from Two-Stage Conditional Maximum Likelihood Estimates of Determinants of Coresiding with Extended Family, with Coresidence in 1910 as the Dependent Variable (352 observations)**

Variable	Probit: $\partial P/\partial x$	Two-Stage Conditional Maximum Likelihood				
		First Stage: Adj. R^2 = .36		Second Stage: Pseudo R^2 = .27		
		Coef.	S.E.	Coef.	S.E.	$\partial P/\partial x$
Dummy = 1 if applied under General Law		10.4657‡	.8234			
Constant		−4.3118	5.2133	−8.5259‡	1.3543	
Monthly pension	−.0084			−.0407*	.0222	−.0081
Age in 1910	.0204	.3119‡	.0693	.1029‡	.0190	.0203
Number of children	.0188	−.1872	.3980	.0941	.1052	.0186
Number of children squared	−.0024	.0350	.0416	−.0114	.0119	−.0022
Dummy = 1 if:						
Poor health	.0226	1.0198	.8504	.1089	.2013	.0215
Health status unknown	−.0083	2.2378	1.4675	−.0573	.3271	−.0113
1900 occupation:						
Professional or proprietor	−.0082	−2.1099	1.1682	−.0400	.2620	−.0079
Artisan	−.0093	−1.0035	1.4594	−.0503	.2958	−.0099
Laborer	−.0333	−1.6120	1.1040	−1.6195	1.1044	−.0319
Owned no property	.1489	−1.9222	.9018	.7617	.2015	.1506
Illiterate	−.1138	−3.5312‡	1.6051	−.5955	.4368	−.1177
Foreign born	−.1308	−.2705	1.3243	−.6602	.3413	−.1305
Marital status changed	.1832	.8585†	1.0492	.9241‡	.2049	.1826
Lives in Midwest in 1910	.0675	−3.2096‡	1.2430	.3553	.3174	.0702
100 or more people per square mile, 1910, in county residence	.0757	1.2071	1.0453	.3818	.2237	.0755
Residuals first stage				−.0051	.0253	−.0010

Note: The first stage is a regression of pension amount on the exogenous variables and whether the veteran applied under the General Law. The second stage is a probit with the exogenous variables, pension amount, and the first-stage residuals as explanatory variables. The standard errors have been corrected. 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.

ficient on pension amount is small, with the estimated mean effect of a dollar increase in monthly pension amount on the coresidence probability falling from -0.0084 when a probit is estimated to -0.0081 when two-stage conditional maximum likelihood estimation is used. The elasticity of coresidence with respect to pension amount is $-0.80 (= -0.0081 [18.93/0.1905])$.

I have shown that my estimate of the effect of Union army pensions on living arrangements is unbiased. I can therefore use the elasticity of coresidence with respect to pension income to calculate the effect of a 100 percent reduction in pension amount (from $18.93 to $0.01 per month) on average coresidence rates in both the Union army sample and the random sample of Union army veterans. This pension reduction would increase the percentage of veterans residing in households headed by a family member from 20 to 36 percent in the Union army sample and from 14 to 25 percent in the random sample of veterans. Because 32 percent of nonveterans in the random sample were living in an extended household that they did not head, 60–100 percent of the difference in coresidence rates between Union army veterans and nonveterans can therefore be attributed to pensions.

Recall from chapter 3 that another source of variation in the Union army pension program was disparate treatment by type of veteran. Confederates were ineligible. As noted in chapter 3, in 1910 Union pensioners were collecting an average pension of $171.90 per year, and about 90 percent of all Union veterans were on the pension rolls, whereas Confederates were collecting an average pension of just $47.24 per year from southern states, and fewer than 30 percent of all Confederate veterans were receiving a pension. Therefore, the difference in coresidence rates by veteran status in a southern-born sample should reflect a veteran effect, while the difference in coresidence by veteran status in a northern-born sample should reflect both a veteran and a pension effect. In fact, among retirees in the southern-born sample, there was no difference in coresidence by veteran status.[13] But, among retirees in the northern-born sample, 17 percent of veterans lived in households headed by a family member, compared to 30 percent of nonveterans.

Lower coresidence rates among Union compared to Confederate veterans persist even controlling for age, marital status, farm residence, literacy, urbanization, and region of residence (see table 6.3). Note, that in contrast to figure 6.4 above, coresidence was less common among households in rural than in urban areas. But, when the variable indicating farm residence is omitted, the coefficient on rural area implies that coresidence was more common among households in rural areas. Because farmers who retired moved to nearby, rural towns, then, controlling for farm residence, coresidence was less common in these rural areas than in urban areas.

The coefficient on Confederate veteran in the southern-born regression in table 6.3 shows that being a Confederate veteran had an insignificant, positive effect on the probability of coresidence. The coefficient on Union veteran in the northern-born regression is positive and significant, implying that Union veterans were less likely to coreside with their extended families than northern-

Table 6.3   **Probit of Probability of Living with Family Members as Dependent among White, Native-Born Retirees, Aged 60–87 in 1910 (from Public-Use Sample), with Coresidence as the Dependent Variable**

Variable	Northern Born (1,775 observations, pseudo R^2 = .28)				Southern Born (385 observations, pseudo R^2 = .32)			
	Mean	Parameter Est.	S.E.	$\partial P/\partial x$	Mean	Parameter Est.	S.E.	$\partial P/\partial x$
Dummy = 1 if coresiding	.26				.37			
Intercept		−1.8423‡	.4111			−.9258	.8334	
Dummy = 1 if:								
Union veteran	.27	−.2312‡	.0900	−.0201				
Confederate veteran					.37	.2000	.1674	.0193
Married	.60	−1.1607‡	.0755	−.1010	.57	−1.0647‡	.1569	−.1029
Illiterate	.04	.1288	.1724	.0112	.13	.4232*	.2269	.0409
Lives on farm	.19	1.1972‡	.0964	.1042	.38	1.5358‡	.1771	.1484
Lives in Northeast	.45				.00			
Lives in South	.11	.2405†	.1236	.0209	.80			
Lives in Midwest	.47	.0548	.0852	.0048	.15	−.0939	.2333	−.0091
Lives in West	.08	−.0616	.1469	−.0054	.05	.0716	.3605	.0069
Lives in rural area	.61	−.4047‡	.0863	−.0352	.80	−.5437‡	.2128	−.0525
Age	71.54	.0242‡	.0055	.0021	72.01	.0109	.0111	.0011

Source: Costa (in press).

Note: The sample consists of white, noninstitutionalized, native-born men aged 60–87 drawn from the 1910 census (Ruggles and Sobek 1995). Rural areas are defined as all unincorporated places and all incorporated places with fewer than 2,500 residents. The omitted dummy is residence in the East in the northern-born equation and residence in the South in the southern-born equation. 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.

born nonveterans. When the northern- and southern-born participation func-
tions are used to estimate whether the difference in coresidence rates between
the northern- and the southern-born samples is largely due to differences in
observable characteristics or in participation behavior, the results imply that at
least 10 percent of the 11 percentage point difference in coresidence rates be-
tween the northern- and the southern-born samples can be explained by differ-
ences in participation behavior and therefore Union army pensions.[14]

6.3 Implications

Union army pensions exerted a sizable, negative effect on the coresidence
rates of the retired. The elasticity of coresidence with family members with
respect to Union army pensions was −0.77. Union army pensions could thus
explain 60–100 percent of the difference in coresidence rates between retired
Union army veterans and nonveterans and at least 10 percent of the difference
in coresidence rates between native-born men born in the North and those born
in the South. Those findings suggest that it is not just the aged of today who
prefer to live alone (University of Michigan Survey Research Center 1962) but
the aged of the past as well. Social norms have not changed. Increases in income
have always been associated with an increased demand for the privacy and auton-
omy provided by separate living arrangements. Rising incomes have therefore
contributed enormously to the increase in well-being among the elderly.

Estimates of the effect of Union army pensions on coresidence rates can be
used to calculate the effect of a secular increase in income on the secular de-
cline in coresidence with family members among the retired. These imply that
up to 86 percent of the decline in coresidence rates between 1910 and 1940
can be explained by increases in income. Rising incomes were therefore one
of the most important factors enabling the elderly to live alone. Additional
factors were the decreased probability of the elderly being widowed and the
increased ratio of elderly to children. The decrease in the number of surviving
children could explain up to 30 percent of the decline in coresidence from
1910 to 1940. Reductions in the probability of elderly men being widowed
contributed to declining coresidence rates after 1940. Improvements in elderly
health have undoubtedly played a role as well, but their effect could not be
quantified from the data.

The role of rising incomes in declining coresidence rates after 1940 is less
clear. Extrapolations of the regression results to the present yield nonsensical
results. One explanation is that, because extrapolating to 1990 falls outside the
sample range, there may be nonlinearities in living arrangements with income
that I am not detecting. Michael, Fuchs, and Scott (1980) find that, among
young, single men and women in the postwar period, the relation between in-
come and coresidence is S shaped, with the probability of coresidence increas-
ing slowly at low income levels, then rising sharply at higher income levels,
before leveling off again. Although I found that pension income had a smaller
effect on the coresidence decision of those in high-earning occupations, this

effect was small and statistically insignificant. Nonetheless, that the average elderly man may now be wealthy enough to be unaffected by small changes in income cannot be ruled out.

Another explanation for my inability to extrapolate to the present is that the income elasticity of coresidence has fallen, and not just because we have become a richer society. Using recent data, Börsch-Supan et al. (1992) argue that increasing the income of the elderly does not raise the probability of their living alone relative to the probability of their living with their children. Schwartz, Danziger, and Smolensky (1984) also find that income has a small effect on the propensity of the elderly to live alone. Although Michael, Fuchs, and Scott (1980) find that income has a substantial effect on the coresidence propensities of the elderly, they may have estimated a high income effect because they were examining a sample of widows. Recall that my results suggested that Union army pension income had a particularly large effect on the coresidence decision of widowers, suggesting that the responsiveness of the widowed to income changes may be greater than that of the married.

The income elasticity of coresidence may have declined because, now that only 5 percent of older men live in their children's homes, those who do so are likely to have special needs or tastes. The income elasticity of coresidence may now be lower because the price of independent living fell. The income effect as I and other researchers have measured it probably incorporates some response to price changes. The appearance of single-portion food products, the growth of housing for single individuals and of retirement communities in low-cost living areas, the declining price of transport and of communication with family members, and the rise in private and state social support services have lowered the price of the elderly living alone. If independent living is now relatively inexpensive, changes in income may have a relatively small effect on coresidence rates.

Independent living may be not only cheaper than it was in the past but also much more attractive. Today, a leisurely retirement lifestyle, filled with recreational activities, including mass tourism, low-impact sports such as golf, and inexpensive entertainments, is often made possible by resettlement to a community with a better climate or other environmental amenities or to one with a low cost of living. Since 1940, the demand by the elderly for residence in an area with a warm February temperature has increased, even though the price has risen (Cragg and Kahn 1997). Such a community is not necessarily one in which children or relatives reside, but it is one with greater recreational opportunities. As recreational opportunities have expanded, independent living may have become more attractive. The increasing attractiveness of independent living may in turn have increased the attractiveness of retirement. The income elasticity of retirement is now lower than it was in 1900, implying that the retirement decision of older men is simply no longer as responsive to changes in income. One explanation is that retirement is now much more attractive. The elderly can now live independently, spending their time in recreational pursuits.

6.4 Summary

This chapter has shown that, since 1880, increasing numbers of retirees have been living by themselves. In 1880, 46 percent of all retired men age sixty-five or older were living in a household headed by children or other relatives. By 1940, this fraction had fallen to 22 percent and, by 1990, to 5 percent. In contrast, among all men age sixty-five or older and still in the labor force, the fraction living in a household headed by children or other relatives was only 10 percent in 1880, 6 percent in 1940, and 4 percent in 1990. Differences in living arrangements by retirement status have narrowed. This difference has narrowed, not because of changes in social norms, or because the ratio of aged parents to adult children has fallen, but because incomes have risen. Although retirees in the past would have preferred to lead lives independent of those of their children, they simply could not have afforded to do so. Income has now become a less important determinant of living arrangements than it was in the past, perhaps because it has become increasingly attractive for the elderly to live alone.

Appendix 6A

Table 6A.1   **Percentage of Noninstitutionalized Men 65 or Older Who Were Household Heads and Who Did Not Live in Extended Families, by Retirement Status**

	% Household Heads			% Not Living in Extended Family		
Year	Total	Retired	Not Retired	Total	Retired	Not Retired
1880	76.9	48.9	83.9	27.7	23.5	28.7
1900	75.8	52.3	86.3	31.3	27.8	32.9
1910	75.5	60.7	85.1	35.1	33.1	36.4
1920	75.6	62.3	84.4	39.1	35.8	41.3
1940	77.8	70.0	87.7	46.5	46.2	46.9
1950	78.8	72.8	86.7	56.3	54.9	58.1
1960	85.8	82.9	92.0	66.3	65.2	68.5
1970	90.4	89.0	94.3	74.8	75.1	73.9
1980	89.7	89.0	92.5	78.7	79.4	76.2
1990	89.7	89.5	90.8	79.3	80.2	75.6

Note: See figs. 6.1 and 6.2. Estimated from the integrated public-use census series (Ruggles and Sobek 1995). Living in an extended family is defined as living in a household in which family members other than the wife are present. The number of retired was calculated using the concept of gainful employment prior to 1940 and the concept of current employment in 1940 and later. The basic pattern remains unchanged if the institutionalized are included.

Table 6A.2   **Percentage Household Heads and Percentage Living in an Extended Family among Noninstitutionalized Men 65 or Older Household, by Retirement Status**

Year	% Household Heads and Living in Extended Family (1)			% Household Heads and Not Living in Extended Family (2)			% Not Household Heads and Living in Extended Family (3)			% Not Household Heads and Not Living in Extended Family (4)		
	Total	Retired	Not Retired	Total	Retired	Not Retired	Total	Retired	Not Retired	Total	Retired	Not Retired
1880	55.4	30.9	61.6	21.5	17.8	22.3	16.9	45.6	9.7	6.2	5.5	6.4
1900	51.2	33.5	59.2	24.6	18.8	27.2	17.5	38.8	8.0	6.7	8.9	5.7
1910	47.4	34.2	55.4	28.4	26.5	29.7	17.8	32.7	8.3	6.7	6.7	6.7
1920	42.9	32.1	50.0	32.8	30.2	34.5	18.0	32.1	8.7	6.4	5.6	6.9
1940	38.4	31.7	46.9	39.4	38.3	40.7	15.1	22.1	6.2	7.1	7.9	6.2
1950	29.7	25.6	35.0	49.1	47.2	51.7	14.0	19.5	6.9	7.2	7.7	6.4
1960	23.3	21.6	26.7	62.5	61.3	65.2	10.5	13.2	4.8	3.7	4.0	3.2
1970	18.0	16.5	22.4	72.4	72.5	71.9	7.2	8.5	3.7	2.4	2.5	2.1
1980	15.3	14.2	20.0	74.4	74.9	72.5	6.0	6.5	3.8	4.3	4.5	3.7
1990	15.8	14.7	21.0	73.9	74.8	69.8	4.9	5.2	3.5	5.4	5.3	5.8

Source: Costa (in press).

Note: See fig. 6.3. See previous table for sources.

Notes

1. The phrase of an elderly Bostonian interviewed by Gratton (1986, 59).

2. In 1900 only 14 percent of these households contained married children. Although by 1950 this figure had risen to 30 percent, in 1990 it was down to 9 percent. (Estimated from the integrated public-use census series.) Because a child who was well established financially would most likely be married, transfers across family members within these households probably went from parents to children, not the other way around.

3. The longitudinal data described in the next section shows that 53 percent of the men who in 1910 were not household heads and who lived with their children, but whose living arrangements in 1900 differed, had moved to a different town. Of those who had moved to another town, approximately 80 percent changed residences.

4. The fraction was probably lower among men.

5. Similar findings are reported in Ohio Health and Old Age Insurance Commission (1919) and Pennsylvania Old Age Pension Commission (1919).

6. Dissenting opinion in Massachusetts Commission on Old Age Pensions (1910).

7. Estimated from the integrated public-use census sample (Ruggles and Sobek 1995). Probit regressions showed that the presence of an aged parent in the household, whether male or female, working or retired, was a positive predictor of a teenage child being in school and a negative predictor being employed. This relation may exist because the presence of an aged parent may have been an indicator that the household was well off.

8. The probabilities used in constructing fig. 6.6 were predicted probabilities evaluated at 1950 mean values to account for differences in household characteristics and in the age structure of the population both over time and across occupational groups. The probit regressions that were estimated included as control variables the age of the household head, the number of children in the household, race, foreign birth, occupation (including none), region of residence, and extent of urbanization.

9. These probabilities are predicted and evaluated at 1950 mean values. Probit regressions were estimated in which the dependent variables were age, marital status, occupation, race, extent of urbanization, and region of residence.

10. The percentage of men who were not household heads and lived with extended family members was greater in the Union army sample than in the random sample of Union army veterans, perhaps because residing with nonrelatives was not an option in rural areas.

11. The 1910 census asked women the number of children ever born and the number of children surviving. Among women sixty-five years of age or older the respective averages were 5.5 and 3.5. Later censuses asked women only the number of children ever born. The average woman age sixty-five or older in 1940 had borne 3.8 and one in 1990 2.5 children. Assuming that a 1900 life table represents the mortality experience of children born to women age sixty-five or older in 1940 and a 1940 life table that of children born to women age sixty-five or older in 1990, the number of surviving children would be 2.2 and 2.0, respectively.

12. Alternatively, the insignificance of the coefficient on poor health might suggest that the health variable that I use might be a poor proxy for true health. If it is indeed a poor proxy, then, because those with higher pensions are less healthy, the effect of pension income on coresidence will be overstated. One solution would be to use another health proxy as an instrument for poor health. When I used subsequent mortality as an instrument for poor health, the sign of the coefficient on poor health reversed but was still insignificant, and the coefficient on pension amount remained unchanged.

13. Thirty-six percent of retired southern-born nonveterans in 1910 were living in households headed by a family member, compared to 38 percent of veterans. The difference is not statistically significant.

14. The absolute value of the actual difference in coresidence rates is 10.2.