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PENSIONS AND RETIREE HEALTH BENEFITS IN HOUSEHOLD WEALTH: CHANGES FROM 1969 TO 1992

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ABSTRACT

By 1992, pensions and retiree health insurance represented one quarter of the wealth of families on the verge of retirement. Our simulations suggest that between 1969 and 1992, abstracting from the effects of changes in wages and years of covered work on pension benefit amounts, changing pension coverage and changing pension plan provisions would have raised the total wealth of each household in the Health and Retirement Study by $67,000 in 1992 dollars, raising wealth from employer provided pension benefits per household by 150 percent in real terms. Changes in retiree health benefits, which have only about 7 percent of the value of pensions, experienced similar real growth, increasing in value by $3,700 in 1992 dollars. Most of the increase in pension values and in the value of retiree health insurance plans was due to improvements in real benefits among covered workers. All classes of wealth holders enjoyed increased wealth from employer provided retirement plans, but those in the top half of the wealth distribution enjoyed increases that were much larger in absolute terms and also were larger in relation to their total wealth than were the increases experienced by those in the bottom half of the wealth distribution.

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I. Introduction

There have been a number of studies documenting the importance of employer provided benefits in the wealth distribution.[1] Most recently, data from the Health and Retirement Study (HRS) allow us to paint a picture of the importance of pensions and retiree health benefits as a source of retirement wealth. In the present study, we analyze changes in wealth from pensions and from retiree health insurance over the period 1969 to 1992.

Pension benefits spread rapidly during the decades of the 1950s and 1960s (Ippolito, 1986). In this paper we will show that they also grew substantially in the period from 1969 through 1992.

There are four reasons why employer provided retirement benefits were less valuable for those retiring in the late 1960's and early 1970's than for those retiring in the 1990's. 1. Pensions, and retiree health benefits were less common in earlier decades. 2. Employees from older cohorts were covered by less generous plans. 3. They were covered for fewer years by their pension plans. 4. Benefits for employees from older cohorts were based upon lower earnings.

This paper measures the changes that have occurred in the values of pensions and retiree health insurance from 1969 to 1992 due to the first two of the four factors mentioned above, additional coverage and the enrichment of plan provisions over time. We hold constant in these calculations the effects of differences among cohorts in years of covered work, and in wages.

The base year for the Health and Retirement Study (HRS), 1992, is taken to be the base

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[1]When calculating total wealth, McDermed, Clark and Allen (1989) includes pension wealth estimated from employer provided plan descriptions. Wolff and Marley (1989) and Wolff (1987) include pensions based on self reports. Hurd and Shoven (1982, 1983) also consider the value of pensions in analyzing wealth and incomes of respondents to the Retirement History Study.

year for the present analysis.[2] The value of pensions, given coverage, is measured in 1969 from self-reported plan characteristics in the Retirement History Study (RHS). In 1980 pensions are measured from the employer-provided pension descriptions from the Survey of Consumer Finances (SCF).[3] The value of health insurance, given coverage for both 1969 and 1980, is measured from the 1980 Current Population Survey. Figures for the earlier period are extrapolated backward using the Medical Care part of the Consumer Price Index. The value of health insurance in 1991-92 is estimated from the March 1993 CPS.

Section II describes the methodology of the study. Empirical findings are presented in Section III. Section IV presents conclusions.

II. Analytical Approach

Pension wealth is calculated by applying pension benefit formulas to the earnings stream observed for HRS participants who are imputed to be covered in earlier years. The wealth equivalent of retiree health insurance is calculated as the present value of retiree health benefits accumulated from work to date.[4] The value of health insurance is estimated for members of the

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[2]The HRS is a panel study of a nationally representative sample of households with at least one member who was born from 1931 to 1941. The first wave of the HRS is used in the present study. That wave, fielded in 1992, includes 12,652 individuals. There are 7,607 households with usable records for the present study.

[3]The Survey of Consumer Finances is actually from 1983, so the match to 1980 is only approximate. The age ranges of the populations differ among these surveys. The RHS includes households whose head was 58 to 63 year olds in 1969. The SCF includes a full age range of the population of men and women, although we use only those 50 to 65. Also, the pensions reported in the RHS are self reported plan description rather than firm reported plan descriptions, which are available in the 1983 SCF and the HRS.

[4]The distributions of wealth and its components in the 1992 Health and Retirement Study are explored in detail in Gustman, Mitchell, Samwick and Steinmeier (1999). Social security wealth is estimated from self-reported but incomplete earnings histories provided by respondents. In the

Health and Retirement Study using information on pension and health insurance coverage from the March 1993 Current Population Survey. Estimates for earlier years are based on the 1980 Current Population Survey, using pension plan characteristics from the 1983 Survey of Consumer Finances, and self reported pension characteristics in the Retirement History Study, and using health insurance values from the 1980 Current Population Survey. Health insurance and pension coverage in earlier years are imputed for each HRS respondent on the basis of coverage statistics from these surveys.

The first step in measuring trends in pensions and health insurance is to establish the pension values for the base year. The HRS collects data on wealth for 1992, and data on income for the year preceding the survey, 1991. The pension values in the HRS are based on data from employer provided pension plan descriptions.[5] For defined benefit plans, the employer-provided plan descriptions make it possible to calculate benefit amounts relatively accurately. The asset value of the pension is simply the discounted value of these benefits at the early retirement age,

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aggregate, our estimates of social security wealth overstate their share of total net wealth by about 3 percentage points.

[5]HRS respondents who reported that they had a pension in their current job were asked the name and address of their employer. The survey staff of the Institute for Social Research (ISR) then contacted these employers to try to obtain pension plan Summary Plan Descriptions (which are publicly available documents). In cases where that did not work, a backup plan was used whereby the records at the Department of Labor were searched for the Summary Plan Descriptions. Of the 5,713 HRS respondents who indicated they were covered by a pension, this strategy resulted in plan descriptions being gathered for 3,834 individuals, or about 67 percent of those who indicated that they were covered. To avoid bias in estimating trends in pensions and health insurance, we do not match the pension plan with the covered respondent, but sample the pensions in 1992 in the same way that we are forced to sample them for earlier years. The reasons for this procedure are described below.

prorated on the basis of work to date.[6]

For defined contribution plans, we also use the employer-provided pension formula to estimate the value of the pension. The total attributed to the defined contribution plan is the sum of employer contributions plus mandatory contributions made by the individual. For plans with mandatory contributions, the amounts of these contributions are used. When there are voluntary contributions, as in Samwick and Skinner (1995), the amounts in the defined contribution plans assume that individuals contribute up to a maximum of 5 percent whether or not there is matching. That is on top of any mandatory contribution.[7]

In computing pension wealth for those who are currently covered by a pension, we benchmark the benefit based on the worker's current annual earnings. We assume that wages in the future for each of these covered individuals increase with the overall growth of wages, but given the respondent's age, we do not add any wage premium for increasing tenure. Job tenure is reported in the HRS.

For purposes of simulation we use a 4 percent cost of living increase, 5 percent nominal wage growth, and 6.3 percent nominal interest rate, the steady state intermediate assumptions

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[6]For example, if a person is 57, will qualify for early retirement at 62, and has been with the firm for 15 years, three quarters of the pension wealth that will eventually be accumulated will have been accumulated based on work to date.

[7]We count pensions from previous jobs only if the individual did not receive a cash settlement or otherwise lose benefits upon separation. Only the most recent pension is included in the analysis. Including prior pensions would raise the pension values by about 9 percent (Gustman and Steinmeier, 1999) but would not result in changes in the trends, since for each year the values would be increased by roughly the same proportional amount. This means that the figure for the difference in the pension between 1969 and 1992 would be increased by approximately $6,000 if we included the prior pension for those with current pensions.

adopted by the Social Security Administration (Board of Trustees, 1995). Thus real wage growth is 1 percent, and the real interest rate is just below 2.3 percent, which also is the return assumed on assets invested in DC plans. The life table used is a projected life table from the Social Security actuaries used to analyze the funding status of social security under the intermediate funding assumptions (see Mitchell, Olson and Steinmeier, 1996).

For the purposes of this study, we build on work that the Census has already done in the area of imputing the employers' share of health insurance costs. Beginning 1992, the Census has included on the March Current Population Survey (CPS) a variable measuring the employers' share of health insurance costs. This variable is based on the National Medical Care Expenditure Survey (NMCES).[8] To estimate the amount of the employers' contributions to health insurance for individuals in the HRS, we match individuals in the 1993 CPS with individuals with health insurance in the HRS.

The employer's promise to contribute to the cost of health insurance after the individual retires (retiree health insurance) has asset value.[9]

When a retiree reaches 65, Medicare becomes the first payer for retirees. This means that employer contributions to health insurance go down, since they no longer have to cover what Medicare picks up. The GAO (1989) reports that employer contributions to retiree health

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[8] The construction of this variable is described in the publication Measuring the Effect of Benefits and Taxes on Income and Poverty: 1979 to 1991 (Census, 1993, p. B-3):

[9]We are looking at the discounted sum of future payments the employer will make to the employee after the employee retires. For the pension, it is represented by the full value of the future pension payments. For retiree health insurance, it is represented by the employer's share of the payments that will be made after the employee retirees. The employee will have to pay his/her share of health insurance after retirement, and these payments will have to come from assets already accumulated.

insurance are only 30 percent as large for retirees over 65 years old as they are for retirees under 65. Accordingly, contributions are reduced by 70 percent after the individual becomes eligible for Medicare (GAO, 1989). Having calculated the employer contributions to retiree health insurance, it is a relatively simple matter to take the present discounted value of the future contributions and arrive at an asset value for the commitment of the firm to maintain its contributions to the health insurance plan. Below the wealth equivalent includes the share of the present value of retiree health benefits accrued on the basis of work to date.

The next step in measuring trends in coverage is to impute for each individual in the HRS the pension and retiree health insurance coverage that they would have had if the coverage rates had been the same as in 1969. There are two steps to do this.

First, the observations for workers in the Retirement History Study are divided up according to work effort (full-time or part-time), sector (public or private), occupation (17 categories), and industry (13 categories). For each combination of these characteristics, the percentage of the RHS respondents having pension coverage only, health coverage only, both pension and health insurance, and neither is calculated. The top pie chart in Figure 1 displays an example distribution for a particular combination (e.g., full-time private sector craftsmen in the construction industry). The chart indicates that 25 percent of the RHS workers in this cell have only health insurance, another 15 percent have only pensions, 30 percent have both, and 30 percent do not have either. A similar exercise is carried out for workers aged 50-65 in the 1993 Current Population Survey, which actually refers to work in 1992.[10] The pie chart for the same

[10]The RHS respondents were 58-63 in 1969. However, the number of CPS respondents in this narrow age range was small enough to create small numbers in many of the cells. On the other hand, we did not want to include everyone in the CPS, since the coverage rates of younger

cell is drawn in the lower part of Figure 1. By 1992, the CPS indicates that 40 percent of this set of workers has both pensions and health insurance, 25 percent have only health insurance, 15 percent have only pensions, and 20 percent do not have either.

Now we impute the pension and health insurance coverage that an HRS respondent might have had given the 1969 coverage rates. Suppose that the HRS respondent actually had both health insurance and pension coverage in 1992, and that his or her work effort, sector, occupation and industry are the ones illustrated in the figure. This respondent would then be assigned a random point in the upper wedge (the one labeled "Pensions and HI") in the lower pie chart in the figure. The lower pie chart would be laid over the upper pie chart, and the imputed health insurance and pension coverage would be assigned according to where that individual's random point was in the upper pie. This respondent, who was in the upper pie wedge in the lower pie, would have a three-quarters chance of remaining in the upper wedge in the upper pie. That is, he or she would have a three-quarters chance of having both health insurance and pension coverage under the coverage rates prevailing in 1969, given that he or she had both types of coverage in 1992. Otherwise, he or she would be assigned to have either only health insurance coverage or only pension coverage in 1969 rather than having both.[11]

A similar procedure would be applied if the individual were in one of the other three wedges of the lower pie chart in 1992. If the individual had only health insurance coverage or only

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workers is different than those of older workers. The 50-65 age range in the CPS is a compromise solution that includes more respondents than the narrow age range but does not mix younger workers to a significant extent.

[11] The upper pie chart should be rotated slightly counter-clockwise relative to the way it is pictured, so that when the lower chart is overlaid some of the remaining 10 percent in the upper wedge of the bottom chart spills out on either side of the upper wedge of the top chart.

pension coverage in 1992, there is some probability that the individual would be imputed not to have had either type of coverage in 1969. If the individual did not have either coverage in 1992, the procedure would impute neither type of coverage in 1969 either, at least for the distributions illustrated by the pie charts in Figure 1.[12]

An analogous procedure is used for imputing pension and health insurance coverage for HRS respondents on the assumption that coverage rates are similar to those prevailing in 1980, except that the 1980 rates are taken from the 1980 Current Population Survey rather than from the Retirement History Study.[13] Since we are comparing two Current Population Surveys, we use coverage rates for all workers in order to minimize the fluctuations of percentages with and without pension and health insurance coverage in the cells defined by work status, sector, occupation, and industry. Finally, for 1992 we use the actual pension and health insurance coverage of the HRS respondents.[14]

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[12]Note that this procedure imputes pension and health insurance coverage jointly. This is important if the ultimate aim is to analyze how changes in health insurance and pensions affect the wealth distribution. For instance, if pension coverage rises by 10 percent and health insurance coverage rises by 5 percent, it makes a difference in the distribution of wealth whether 5 percent of the individuals gain both pension and health insurance coverage and 5 percent gain only pension coverage, or whether 10 percent gain only pension coverage and 5 percent gain only health insurance coverage.

[13] The 1980 coverage rates in the Current Population Survey actually refer to calendar year 1979.

[14]More specifically, in imputing pension coverage we did the following. From the March 1980 CPS, for each industry/occupation/full-time status/private-public sector combination, four probabilities were calculated: Pr(no coverage), Pr(pension only), Pr(health insurance only), and Pr(both). From the March 1993 CPS, for each combination, the same four probabilities were calculated. (We could have used the RHS to calculate these probabilities, but we used the CPS for two reasons. First, we wanted to keep the two probabilities as consistent as possible, since the next step is to compare them. Secondly, the CPS has more observations, which reduced problems of small sizes in the individual cells used to calculate the probabilities.) Next, we computed Pr(pension/health insurance combination in 1980 | pension/health insurance combination in 1992)

After imputing pension and health insurance coverage for the three years (1969, 1980, and 1992), the next step is to impute the value of pensions, retiree health insurance coverage, and the value of retiree health insurance coverage for those who are imputed to have it in the given year.

For 1969, the imputed values are based of pensions on the Retirement History Study, since there are no employer descriptions of plans during that time period. This involves several steps. First, we take all respondents of the RHS who reported eventually receiving a pension during the survey. For each such respondent, we divide the pension amount by the product of the years of service in the job that produced the pension and the final wage in that job. This yields the "generosity factor" of that pension. Next, we note the early retirement age and the normal retirement age for the pension, as reported by the respondent. If the collection of the pension occurred before the normal retirement age, the generosity factor is adjusted to reflect the fact that the pension amount was reduced for early retirement. Each pension is thus characterized by three features: the generosity factor, the early retirement age, and the normal retirement age.

Next, these pensions are grouped according to work effort, sector, occupation, and industry, similar to the cells that were formed to impute coverage rates. Pensions are further separated according to wage deciles to reflect the fact that pensions for upper income workers are likely to be different from pensions for lower income workers. This gives, for each combination of

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in the manner described in the text associated with Figure 1. These calculations assume that any additional 1992 joint coverage probability came from jobs which had either pension or health insurance coverage in 1980, rather than from jobs that did not have any coverage in 1980, although in some cases where the joint pension/health insurance rate in 1993 is higher than the percentage who had either pensions or health insurance in 1969, some individuals with both in 1993 might be imputed to have neither in 1969. Finally, for each individual in the HRS, we found the coverage in 1992 and imputed the 1980 coverage from the conditional probabilities PR(pension/health insurance combination in 1980 | pension/health insurance combination in 1992) computed from the two CPS's.

work effort, sector, occupation, industry, and wage decile a pool of pensions that is reflective of pensions available to older workers in 1969. Note that this strategy assumes that pensions follow a simple formula of multiplying the generosity factor times years of service and the final wage and reducing the amount if the individual retires before the normal retirement age. This assumption is more appropriate for 1969, when most plans were defined benefit and reduction amounts were close to actuarially fair, than for 1992.

Finally, for each member of the HRS who is imputed to have had a pension if pension and health insurance coverage rates were similar to those prevailing in 1969, a pension is drawn at random from the pool available for that individual's level of work effort, sector, occupation, industry, and wage decile. Using the wages and job tenure observed for the HRS individual in 1992, the amount of the annual pension benefit is calculated from the pension's generosity factor, early retirement age, and normal retirement age. The wealth value of the pension is calculated by taking the sum of the pension benefits from the date of collection forward, allowing for discounting back to 1992.

For 1980, a slightly different strategy is followed. There are no pensions available for 1980 per se, but in 1983 the Survey of Consumer Finances collected Summary Plan Descriptions from the employers of the respondents. These SPDs were later coded in a format which makes them amenable for computer evaluation. As with the previous evaluations for 1969, the SCF SPD's were grouped according to work effort, sector, occupation, industry, and wage decile. This forms a pool of pensions for each cell that reflects the pensions that were actually available for workers in that cell at the time of the SCF.

For each HRS respondent who is imputed to have had a pension in 1980 if the coverage

rates in that year had prevailed, a draw is made from the pool of respondents with SPD's for the appropriate combination of work effort, sector, occupation, industry, and wage decile. Using that SPD, the pension value and accrual are calculated using the HRS respondent's actual years of service and wage in 1992.[15]

For 1992, the HRS collected pension summary plan descriptions for about two-thirds of the respondents with pension coverage, much like the SCF did in 1983. For these individuals, it would have been possible to calculate the values of the actual matched pensions in 1992. However, in order to maintain as much comparability with previous years (when no exact matches were possible), and also to calculate values for respondents for whom no pension SPDs were obtained in 1992, we followed the same procedure for 1992 that we did for 1980, except that we used the HRS SPDs rather than the SCF SPDs. That is, we grouped the HRS SPDs according to the respondent's work effort, sector, occupation, industry, and wage decile, and for each HRS respondent who reported that he or she was covered by a pension, we drew one pension at random from the appropriate cell and evaluated it.[16]

The general strategy for measuring the change in the value of employer provided health

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[15] Some of the coded pensions contain dollar amounts corresponding, for instance, to a formula which pays a flat $25 per month for each year of service. The amounts are almost always increased periodically to reflect the general advance in wage levels. Therefore, in calculating the SCF pensions, we assumed that any nominal dollar amounts in the pensions were increased in proportion to the increase in the general wage level between 1983 and 1992.

[16]The results produced with exact and random matches with HRS data are very close, as can be seen by comparing the tables reported below with those reported in Gustman, Mitchell, Samwick and Steinmeier (1999).

insurance is similar to that for pensions, although the details are considerably different.[17] To determine the health insurance values for 1980, we begin by grouping the 1980 CPS values for employer contributions to health insurance according to work effort, sector, region, occupation, industry, and wage decile. Note that in addition to the variables used for the pension matches, we use geographic region here to reflect the possibility that health care costs vary substantially from one region to the next. Then, for each HRS respondent who is imputed to have health insurance coverage were the coverage rates assumed to be similar to those prevailing in 1980, a draw is made from the pool of values for the appropriate work effort, sector, region, occupation, industry, and wage decile cell. This value is indexed to 1992 using the overall CPI to express it in 1992 dollars, and the resulting measure is the value of employer contributions to health insurance in the current job.

Imputing the asset value of retiree health insurance involves matching retiree health insurance with jobs in the CPS. For a HRS respondent who is imputed to have health insurance coverage, given the 1980 coverage rates, we first ask whether that respondent was covered in 1992. If the respondent was covered in 1992, then we ask whether he or she was also covered by retiree health insurance in 1992. If yes, we then adjust the coverage rate in 1992 by changes observed for medium and large size firms in the retiree health insurance coverage rate conditional

[17]Since 1991, Census has placed on the March CPS tapes a variable for the employer contributions to the health insurance of current workers, computed from the NMCES, as described above. Census computed the same variable for earlier years, but those CPS datasets had already been released. However, they have made the variable available at their Internet FTP site, along with the necessary linking information, for all the years back to the March 1980 CPS.

on coverage by a pension.[18]

To calculate the value of retiree health insurance coverage, we calculate the present value of employer contributions from 1992 onward, discounted back to 1992 by the real discount rate.[19] The annual contribution after age 65 is taken to be 30 percent of the contribution before age 65 to reflect the integration with Medicare; the 30 percent figure is taken from a GAO report. Retiree health insurance is assumed to be available from the age of early retirement in the respondent's pension, or from age 55 for the relatively few cases where the individual reported retiree health insurance with no pension.

For the relatively few cases where the HRS respondent was imputed to have health insurance coverage in 1980 but did not report health insurance coverage in 1992, the probability of retiree health insurance coverage in 1980 was taken to be 48 percent. This is the overall probability of retiree health insurance coverage in the HRS, given that the respondent had current health insurance coverage. Again, we are assuming that any changes in the probability of retiree health insurance coverage between 1980 and 1992 mirror changes in the probability of current health insurance coverage, adjusted for changes in the conditional probability of retiree health

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[18]Data from the BLS survey of intermediate and large size firms, which is available from 1981, suggests that the changes in the probability of retiree health coverage for those with health coverage from their employer were only modest over the period. Approximately 61 percent of full time workers in medium and large firms with medical benefits had employer provided health insurance in 1981, and after adjusting for changes in the scope of the survey, about 55 percent had employer provided benefits in 1991 (Karoly and Rogowski, 1997). The major drop in coverage was in the mid-1980s. We incorporate these changes into our estimates.

[19] Note that by using the real discount factor, we are assuming that health insurance contributions will grow at the same rate as prices in general. There is obviously room for debate about this assumption, but it is fairly clear that simply projecting health insurance contributions to grow at the same rate as they have been growing in the previous decade is probably even more inaccurate.

coverage given coverage by employer provided health insurance.

In the absence of other information, we assume that retiree health insurance becomes vested at the age of early retirement eligibility.

Since neither the CPS nor the RHS reports on employer contributions to health insurance in 1969, the 1969 contributions are based on the 1980 CPS figures. However, the 1980 figures are reduced to 1969 amounts using the health care component of the CPI before expressing them in 1992 dollars using the overall CPI-U. Again, the CPS observations are grouped according to work effort, sector, region, occupation, industry, and wage decile, and for HRS respondents imputed to have health insurance under the coverage conditions prevailing in 1969, a random draw is made from the appropriate cell to determine the employer contribution amount. Values for both retiree health insurance are also calculated in exactly the same way as was done for the 1980 distribution.

For 1992, the employer contributions to health insurance from the 1993 CPS are grouped according to the same categories as for the earlier years. For an HRS respondent who reported health insurance in 1992, a random draw is made from the appropriate cell to determine the employer contribution. Then, for HRS respondents who report that they also have retiree health insurance, the wealth value of this insurance is calculated in exactly the same way as for the earlier years.

One final note on the calculations of the value of pensions and health insurance. For pensions, the plans in the HRS are matched with particular jobs. In the small number of cases where a respondent is imputed to have a pension in a previous year but does not have pension coverage in any HRS job, the current job is used as the potential pension job, and if there is no

current job, a previous job is used. In the health insurance section of the survey, the question regarding the source of the coverage is ambiguous. For instance, one response as to the source of the coverage is "current/past employer," without distinguishing whether the plan is from a current employer or from a past employer. But in the job section, there are no questions about whether a particular job provides health insurance. As a result, there are quite a few lines of programming code devoted to matching plans with jobs. For instance, a plan which offers retiree health coverage is matched with the current job if the current job offers a pension plan (on the premise that retiree health coverage is almost always offered in conjunction with a pension plan), or with a previous job with a pension if the current job does not offer a pension plan. In this way, plans that offer either current or retiree health insurance are matched with either the current job or one of the previous jobs listed in the employment section.

III. Empirical Findings

According to our calculations, employer provided pensions and retiree health insurance account for about a quarter of total wealth among all households sampled in the Health and Retirement Study, and for about a fifth of the total wealth of the median ten percent of households order by their wealth holdings. As seen in column 1, in the first panel of Table 1, on average, pensions owned by the HRS population in 1992 were worth $112,921. Pension wealth accounts for 22.8 percent of the total wealth accumulated by these households on the verge of retirement, where the measure of total wealth includes the value of social security.[20] Retiree health

[20]Measuring pension wealth using self reported data, Smith (1993) found that pension wealth accounted for 22 percent of total wealth in the HRS. Total net mean wealth held by the HRS population in 1992, including pensions, retiree health insurance and social security, is $496,105, while average net wealth for the median 10 percent of the population is $340,527. By way of comparison, note that using the 1969 Retirement History Study (RHS), Hurd and Shoven (1982,

insurance was worth $7,609 for each HRS household, accounting for another 1.5 percent of total wealth. When families are ordered by wealth, the average value of pensions for the median ten percent of wealth holding families is $61,384, amounting to 18 percent of wealth owned by these HRS households. Retiree health benefits are worth $7,742, amounting to 2.3 percent of their total wealth.

Turn now to consider changes in the value of wealth from pensions and retiree health insurance. Because pensions are ten times as valuable as retiree health insurance, the calculation of wealth from employer provided deferred benefits, and changes in wealth over time associated with changes in these benefits, are going to be dominated by changes in pensions.

Comparing the three panels in Table 1, one can observe the trends in pension wealth due to changes in coverage and plan provisions, and in the wealth value of retiree health insurance due to changes in coverage and in the relative cost of medical expenditures. Column 1 of Table 1 contains the mean values of pension wealth and wealth from retiree health insurance for all households. Values for the households falling between the 45^{th} and 55^{th} percentiles of the total wealth distribution are shown in column two.

The value of pension wealth per household increased by 145 percent (112,921/46,104)

Table 3) found for this cohort of 58 to 63 year olds, that mean total wealth (including pensions and social security but subtracting Medicare and Medicaid from their figures) is $62,000 in 1969 dollars. Inflating by the CPI, that amounts to $237,000 in 1992 dollars, or about half the total wealth, including pensions, social security and health insurance, we find for the HRS cohort in 1992. Excluding pension and social security wealth and the capitalized value of transfers, total wealth in the RHS is $33,000, which inflating by the CPI is about $126,000 in 1992 dollars. This figure again is about half of the value of nonpension, nonsocial security wealth in the HRS population, which is $242,000 in 1992 dollars.

between 1969 and 1992.[21] As noted above, measured changes in pension wealth are estimated using the same real earnings profile and experience assumed for the HRS cohort members. They abstract from the effects of changes in tenure and earnings. Again abstracting from the effects of changes in the overall price level, retiree health insurance almost doubled in value over the same period. Almost all of the difference over time in wealth from changing coverage and plan provisions of these employer provided deferred benefits are due to differences in pension wealth, rather than to differences in the value of retiree health insurance. This can be seen in columns 3 and 4. Thus pension coverage increased from 55 to 64 percent between 1969 and 1992, with almost all of the increase taking place by 1980. In contrast, average real pension wealth among covered families more than doubled in value, with 54 percentage points of the increase taking place by 1980.

Figure 2 indicates the relation of total wealth to place in the wealth distribution.[22] The distribution of wealth in the baseline Health and Retirement Study is more unequal than the

[21]As a rough benchmark we found that total wealth approximately doubled between the periods, suggesting that pension wealth grew faster than the other components of total wealth, even if one standardizes for changes in covered earnings and the length of covered employment. Given the differences in methodology between Hurd and Shoven (1982,1983) and our own study, we do not wish to push these comparisons very far.

[22]When we calculate gini coefficients for the wealth distribution, we find a gini coefficient of around .5, instead of higher number found in some other studies. The lower value reflects the inclusion of pensions, health insurance and social security. For a related discussion, see Wolff (1987). A gini coefficient of around .5 is also consistent with Feldstein (1976) as cited in Wolff. Wolff and Marley (1987) report a gini coefficient for wealth augmented by social security and pensions of around .57 for 1983. The 90-10 differential is 12.6 to 1 when pension values and retiree health insurance values in 1992 are used.

distributions in the baseline Retirement History Study.[23]

For some in the very bottom bracket of the wealth distribution, wealth is negative. Wealth may be negative because there is negative business wealth, or because the value of the mortgage reported exceeds the value of the house, or for other reasons. Essentially, at least some of those falling in the bottom five or ten percent of these distributions do not conform to stereotypes of people with low permanent wealth, but are people with large positive components of wealth offset by negative components. Accordingly, where possible we will concentrate on changes for those outside of the bottom ten percent of the wealth distribution.

Figure 3 shows that pension coverage increased from 1969 to 1992. The largest increase clearly took place between 1969 and 1980. As the figure suggests, pension coverage is highest for those between the fiftieth and ninety fifth percentiles of the wealth distribution, and increases in pension coverage were largest for those in the top part of the wealth distribution.

In Figure 4 we see that the increase in the value of pension wealth for those with a pension, which is measured in real terms, was large over both parts of this period. Those with pensions enjoyed a substantial enrichment in their pensions from changes in plan provisions.

Taking the changes in coverage and plan value together in the distribution of pension wealth among all families, Figure 5 shows that the changes in plan value dominate the changes in coverage.

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[23]The level of wealth at the ninetieth percentile is $978,000. The ratio of wealth at the ninetieth percentile over mean wealth for the HRS sample is 1.97 to 1. Hurd and Shoven (1983, Table 13.12), including the value of Medicare and Medicaid, found the ratio to be 1.66 to 1 in the 1969 Retirement History Study. Similarly, while Hurd and Shoven (Table 13.9) found the ratio of the average wealth for the top ten percent of wealth holders in the RHS to the mean for the sample to be 3.35 to 1, we find the ratio to be 3.7 to 1.

As seen in Figure 6, if we measure total wealth in each year using the level of nonpension wealth from 1992, then the share of total wealth represented by pensions increased disproportionately for those in the top part of the wealth distribution.[24] For those in the top half of the distribution, the share of total wealth represented by pensions doubled over the period, while increasing much more modestly for those in the bottom half of the distribution.[25]

Figures 7 through 10 show the parallel changes in the value of retiree health benefits. As seen in Figure 7, from 1969 to 1992, coverage by retiree health insurance grew for those in the bottom half, but not the bottom half, of the wealth distribution. As seen in Figure 8, among covered households, the wealth value of retiree health insurance increased sharply whatever their place in the wealth distribution. However, because of the lower coverage of those in the bottom part of the wealth distribution, Figure 9 indicates that the increase in the value of retiree health insurance among all households was much larger among the households in the top half of the wealth distribution. As seen in Figure 10, for those in the top half of the wealth distribution, the wealth value of retiree health insurance roughly doubled in relation to total wealth, increasing

[24]In calculating total wealth in each year, we hold nonpension, nonhealth insurance components of wealth at their values in 1992. So any differences in the wealth distribution are due only to differences in pension and retiree health insurance values in the different years. Essentially, then , we are asking how pension wealth and wealth from retiree health insurance changed given a person's position in the wealth distribution in 1992. Note that we are not tracing changes in the distribution for the same people, that is, for people identified as falling in a particular bracket in a specific year. Rather we are comparing the distributions that would obtain with the pensions and retiree health insurance in one year with the distributions that would obtain with the pensions and retiree health insurance in another year.

[25]Note that the large share of wealth from pensions and retiree health insurance for those in the bottom 5 percent of the wealth distribution reflects the effects of negative wealth held by some who had very high gross wealth, but even larger debts.

proportionately less for those in the bottom part of the wealth distribution.[26]

There is some interest in the relative importance of public vs. private sector pensions, and defined benefit vs. defined contribution pensions in governing these results. These are investigated in Table 2.[27] We do not have results by plan type in earlier years. In 1969, we assumed that all jobs offered DB plans only. In addition, it can be shown that the HRS was more likely to match DB plans, and plans from larger firms than it was to match DC plans and plans from smaller firms. Therefore, the present sample overstates the importance of DB plans, but it causes at most a four percentage point overstatement of the value of pensions.[28]

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[26]Again, note the effects of the unusual composition of households in the bottom 5 percent of the wealth distribution.

[27]Note that households may have one spouse in the private sector and another in the public sector, or one spouse with a DB plan and another with a DC plan. In that case, the household is counted twice, once in each relevant category, which is why the number in the all category does not necessarily equal the simple sum of the relevant subcategories. For example, if the husband was a private sector worker with a $50,000 pension and the wife was a public sector worker with a $75,000 pension, the household would show up as having both a $50,000 private pension and a $75,000 public pension, and a total pension of $125,000. But in the All column, the household would be counted only once. The same kind of counting goes on if the wife has a DB plan and the husband has a DC plan.

[28]Employees from large firms or with a defined benefit, rather than a defined contribution plan, were more likely to have a matched employer provided pension plan. In the self reported information on plan types, when asked what type of pension they had, of those who reported, 68 percent (weighted) of HRS respondents indicated they were covered by some type of DB plan, with the rest covered exclusively by a 401(k) or other DC plan. For this group, at age 65, on average DB plans are worth 15.5 percent of the cumulative earnings. On average, at age 65 DC plans are worth 9.2 percent of the cumulative earnings. But 76 percent (weighted) of respondents with a matched pension are treated as being covered by a DB plan. If respondents are reporting the correct mix of plan types, so that the proper mix includes 68 percent DB and mixed plans and 32 percent DC only plans, and we have used a mix of 76 percent DB and mixed plans and 24 percent DC only, we would overstate the value of average pensions in retirement by about 3.7 percent (.76*.155+.24*.092)/(.68*.155+.32*.092). Since pensions were assigned to respondents without an employer provided plan on a number of characteristics so as to reduce this bias, 3.7 percent is an upper limit estimate. Gustman, Mitchell, Samwick and Steinmeier (1999). Further

The last columns of Table 2 show that private sector pensions are 8.6 times as important as public sector pensions as a source of total wealth, so that the results discussed in this paper are generated basically by private sector pensions. These tables also suggest that wealth from those with DB and combination plans is 7 times as important as wealth from those with DC plans only.

IV. Implications and Conclusions

We have examined the implications of changes in pensions and health insurance values for changes in household wealth. Major findings of the study include the following:

By 1992, pensions and retiree health insurance represented one quarter of the wealth of families on the verge of retirement. Between 1969 and 1992, abstracting from the effects of changes in wages and cohort differences in tenure on pension benefit amounts, changing pension coverage and plan provisions increased pension wealth per family by almost 150 percent in real terms. Retiree health benefits, which have only about 7 percent of the value of pensions, almost doubled in value over the period. Most of the increase in pension values and in the value of retiree health insurance plans, which together amount to about $70,000 per household, was due to improvements in real benefits among covered workers, rather than to increases in coverage. Over this period, coverage by employer provided pensions increased for those on the verge of retirement from 55 percent to 64 percent. Coverage by retiree health insurance increased from 28 percent to 32 percent. All classes of wealth holders enjoyed increased wealth from employer provided retirement plans, but those in the top half of the wealth distribution enjoyed increases that were much larger in absolute terms and also were larger in relation to their total wealth than were the increases experienced by those in the bottom half of the wealth distribution.

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details are available in the appendix to that paper.

The findings presented above have implications for studies of wealth, wealth changes, and the distribution of wealth and its changes. It is clear from our analysis that studies of these topics must take pensions into account. One will paint a misleading picture of wealth, its distribution and related changes if pensions are ignored. In addition, the changes in pensions are large enough to suggest that panel surveys aimed at examining wealth and its determination should probably collect pension information periodically.

Because the changes in pensions are large and would appear to be difficult to foresee, our findings constitute evidence against a hypothesis that would attribute any relation between pensions and wealth to self selection of those with an unmeasured taste for saving into pension covered jobs. Self selection is an important problem for studies that would relate outcomes such as total accumulated wealth, retirement, or mobility to pension variables.[29]

It is also clear that retiree health insurance is dwarfed by pensions, suggesting that retiree health insurance is probably not an important determinant of overall wealth or its changes. Retiree health insurance has been accorded an important role in explaining retirement behavior (e.g., see, National Institute of Health, May, 1998). For this to be so, it must play a strongly disproportionate role in the few years between retirement and eligibility for Medicare, or people must be extremely sensitive to risk when health insurance coverage is unavailable (Rust and Phelan, 1997). Nevertheless, the value of retiree health insurance is so small as to raise doubts

[29]In Gustman and Steinmeier (1999) we find that pension wealth is not largely offset by decumulation of other wealth, suggesting that pensions add to total wealth. One possible explanation for this result is that those with pensions have a higher taste for saving. The findings in this paper cast doubt on that hypothesis. Other evidence that is inconsistent with the idea that people select themselves into pension covered jobs on the basis of unobserved tastes is presented in Gustman and Steinmeier (1995).

about the strong effects of retiree health benefits found in some of these studies.[30] And for similar reasons, changes in retiree health benefits are likely to be of limited importance in shaping retirement behavior.

[30]For further discussion, see Gustman and Steinmeier (1994).

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Table 1: Pension Wealth And Wealth From Employer-Provided Retiree Health Insurance
($1992)

Source of Wealth	Mean Value For All Households ($)	Mean Value For Median Ten Percent Of Wealth Holding Households ($)	Percent With Wealth From Indicated Source (Percent)	Mean Value For Covered Households ($)
1992				
Pension	112,921	61,384	64	177,221
Retiree Health Insurance	7,609	7,642	32	23,870
1980				
Pension	84,070	48,572	63	133,865
Retiree Health Insurance	5,214	5,784	35	14,852
1969				
Pension	46,104	31,627	55	83,472
Retiree Health Insurance	3,916	4,651	28	13,931

Source: Authors' calculations. All data are weighted by HRS sample weights.

Table 2: Pension Wealth By Sector of Coverage and Plan Type For Entitled Population and All Households
($1992)

Source of Wealth	Percent Of Households With Wealth Entitlement From Pensions and Indicated Employment or Coverage (Percent)	Average Value of Pension Wealth Among Entitled Population ($)	Average Value of Pension Wealth Among All Households ($)
Total Sample			
All*	64	177,221	112,921
Private Sector Vs. Public Sector Employment			
Private Sector	56	173,249	97,172
Public Sector	8	206,185	15,684
Plan Type			
Defined Benefit or Combination Plan	52	190,615	98,117
Defined Contribution Plan Only	19	79,123	14,804

Source: Authors' calculations. All data are weighted by HRS sample weights.
* Components do not sum to totals in the table. Households may have one spouse in the private sector and another in the public sector, or one spouse with a DB plan and another with a DC plan. In that case, the household is counted twice, once in each relevant category. However, the All category counts each household once.

Figure 1
Example of Distributions of Pensions and Health Insurance

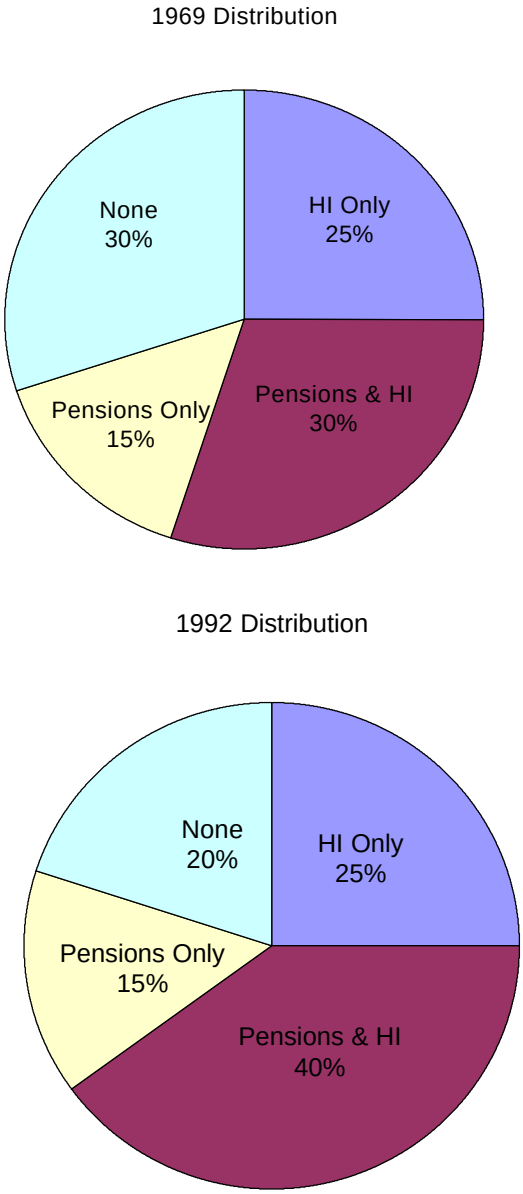

Figure 2: Distribution of Wealth
HRS Households, 1992 Dollars

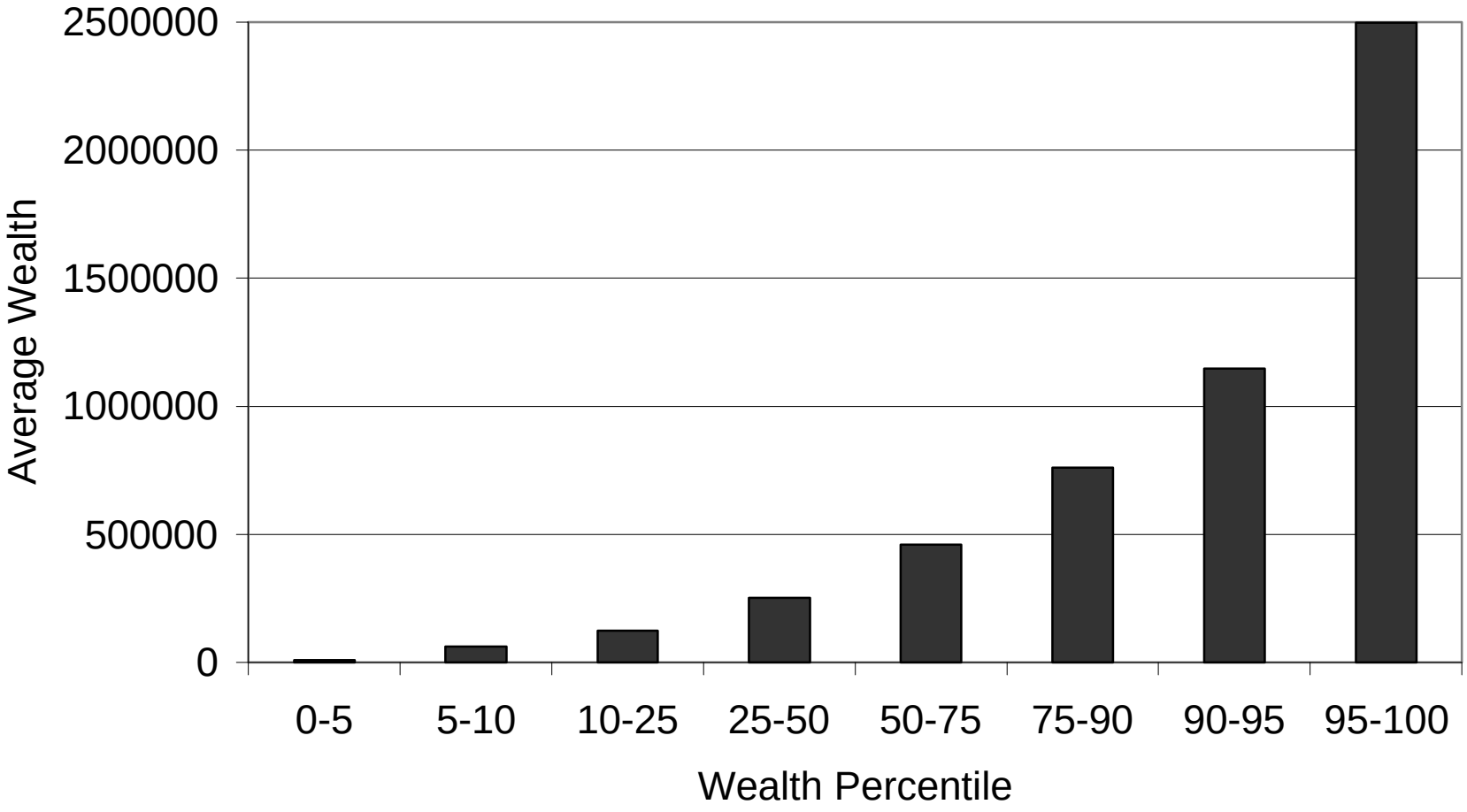

Figure 3: Households With Pensions
Percent By Year, By Wealth Percentile

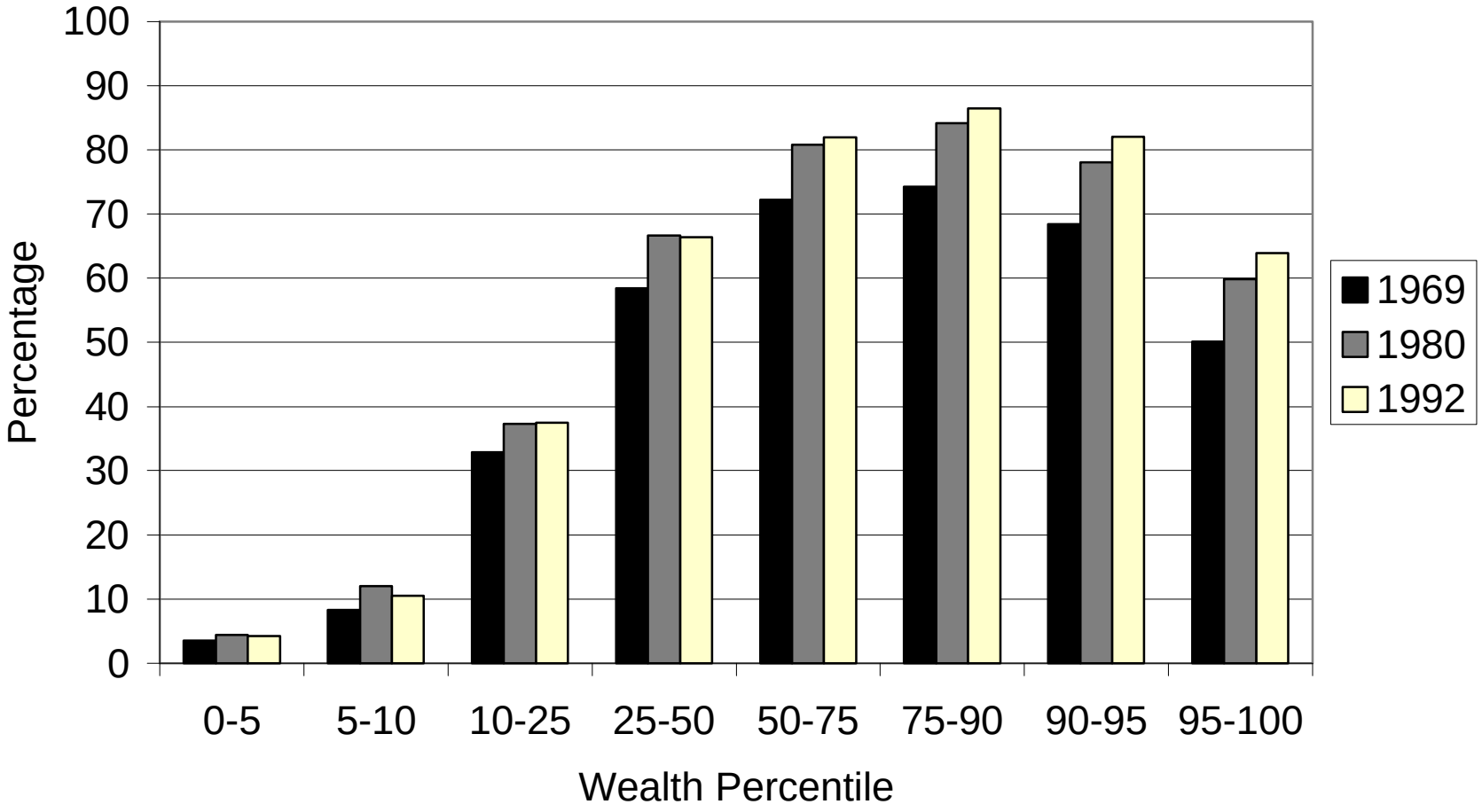

Figure 4: Pension Wealth
Average Among Households With Pensions

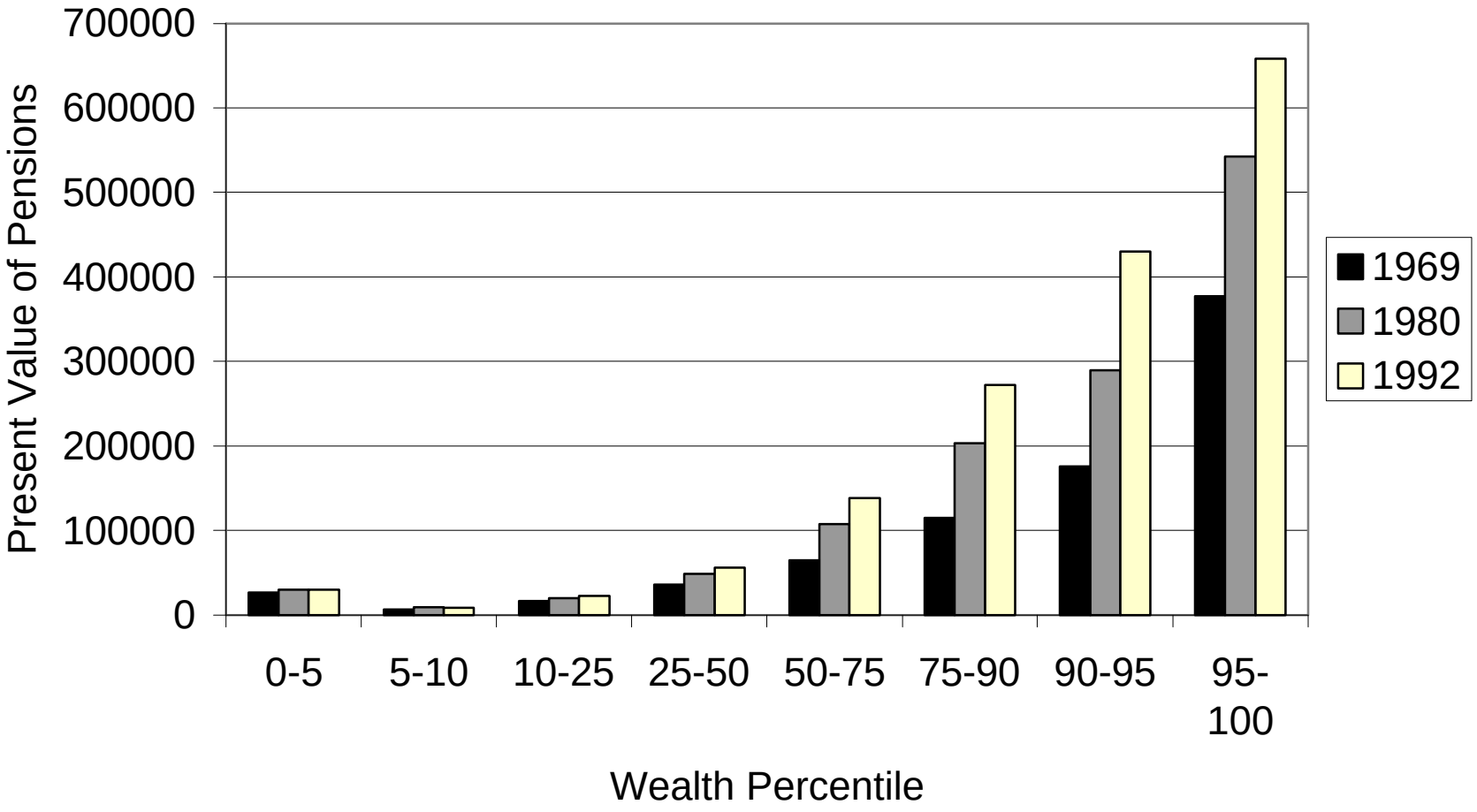

Figure 5: Pension Wealth
Average Among All Households

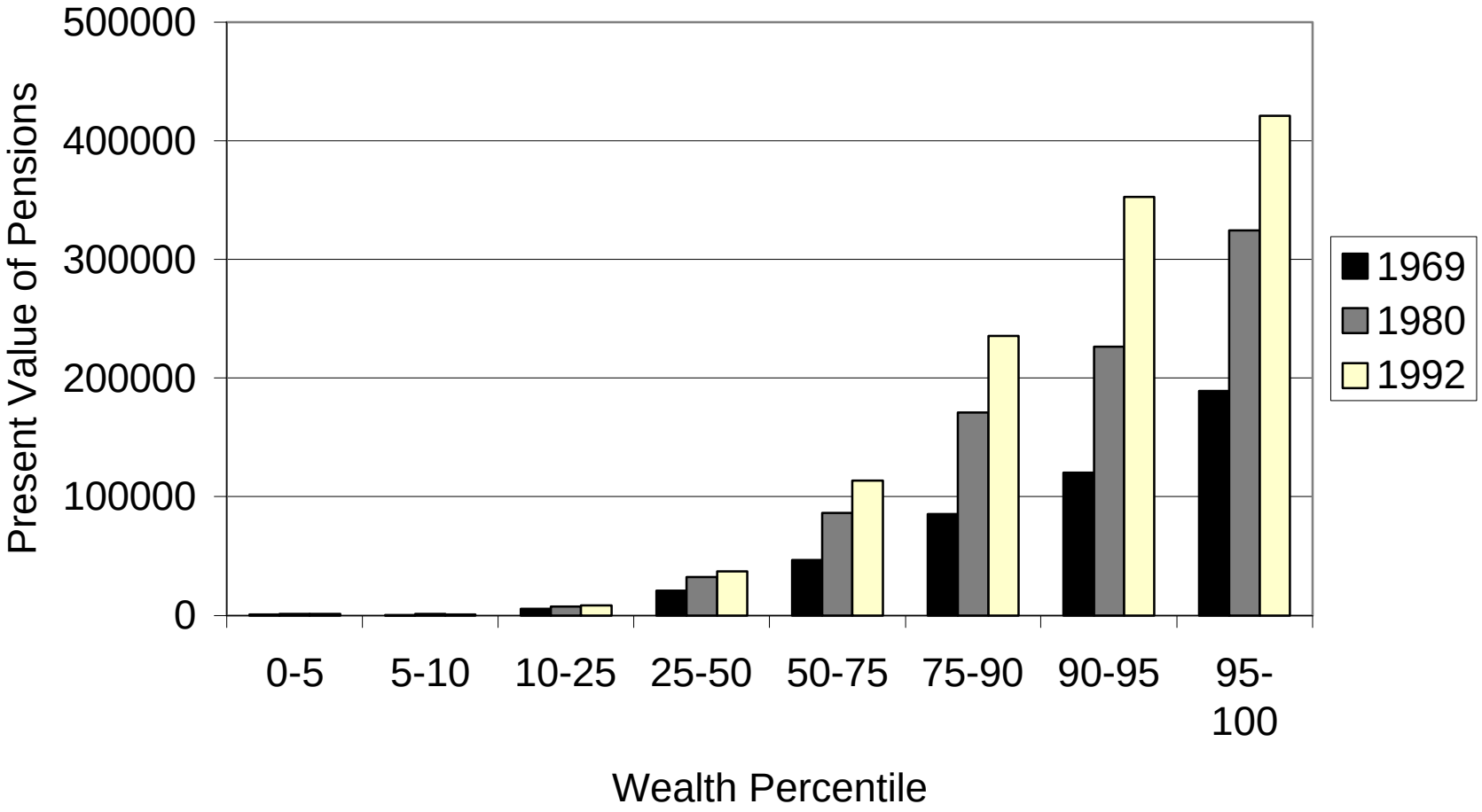

Figure 6: Percentage of Wealth From Pensions

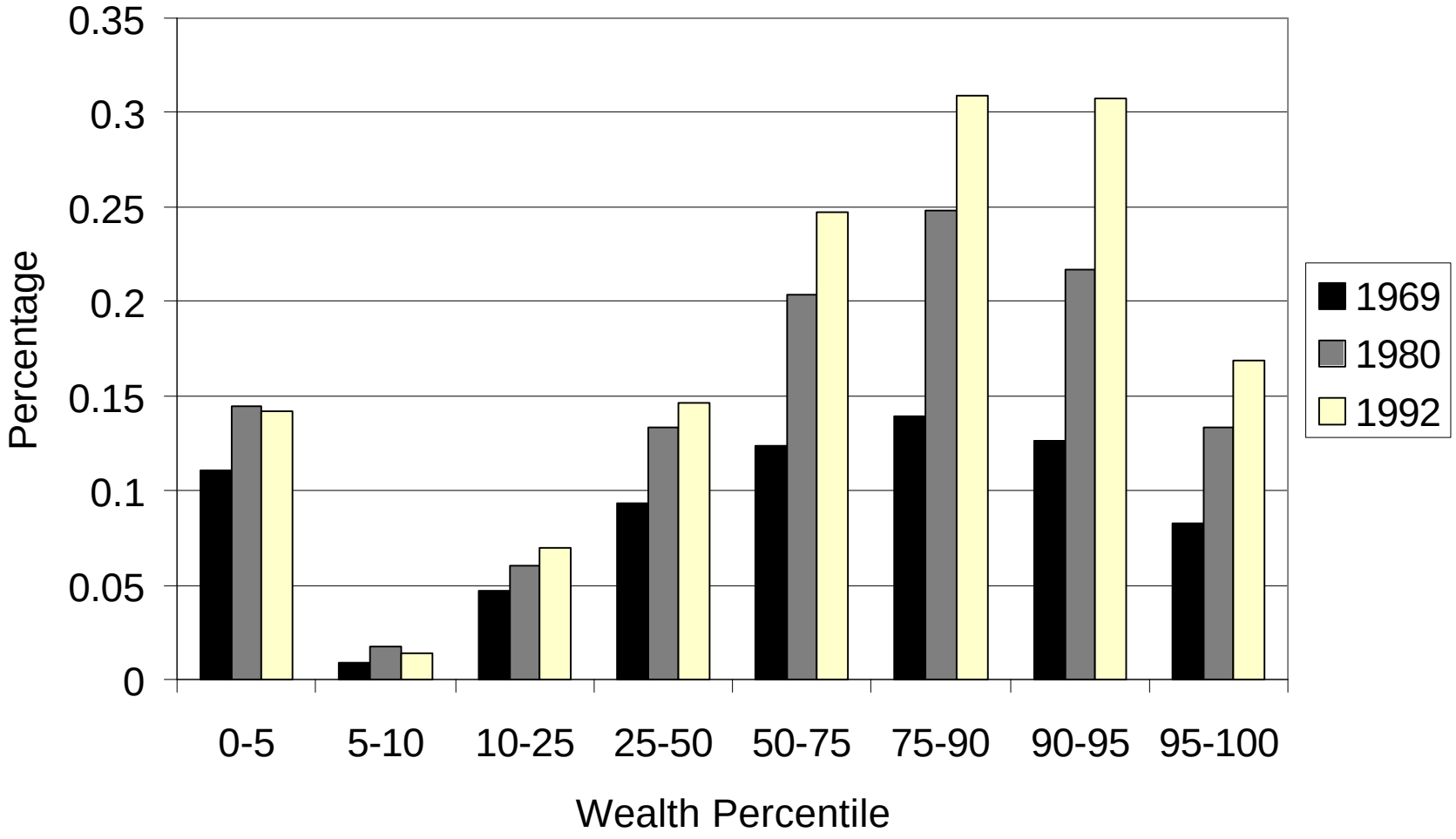

Figure 7: Percent With Retiree Health Insurance

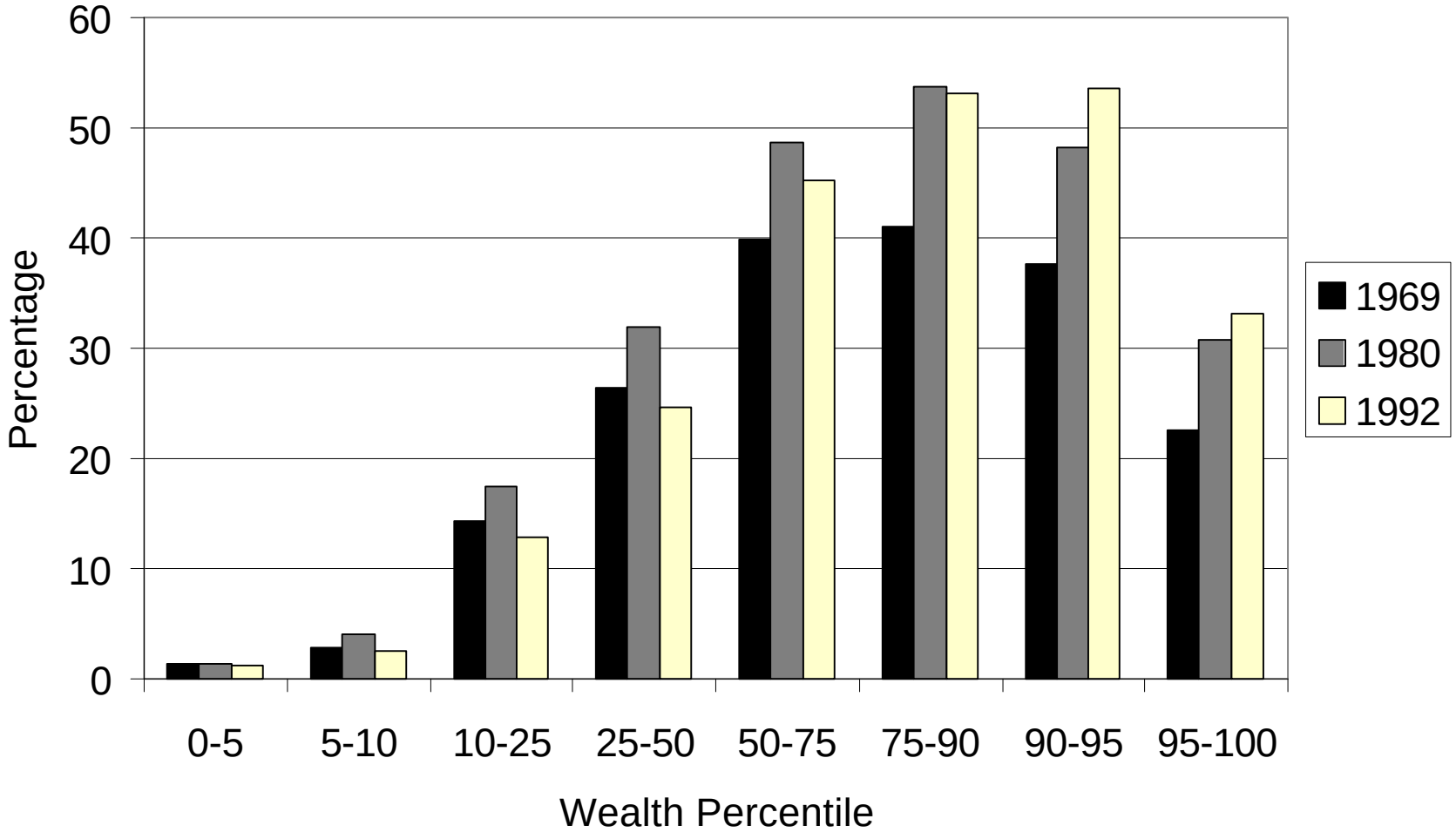

Figure 8: Retiree Health Benefits
Average Among Covered Households

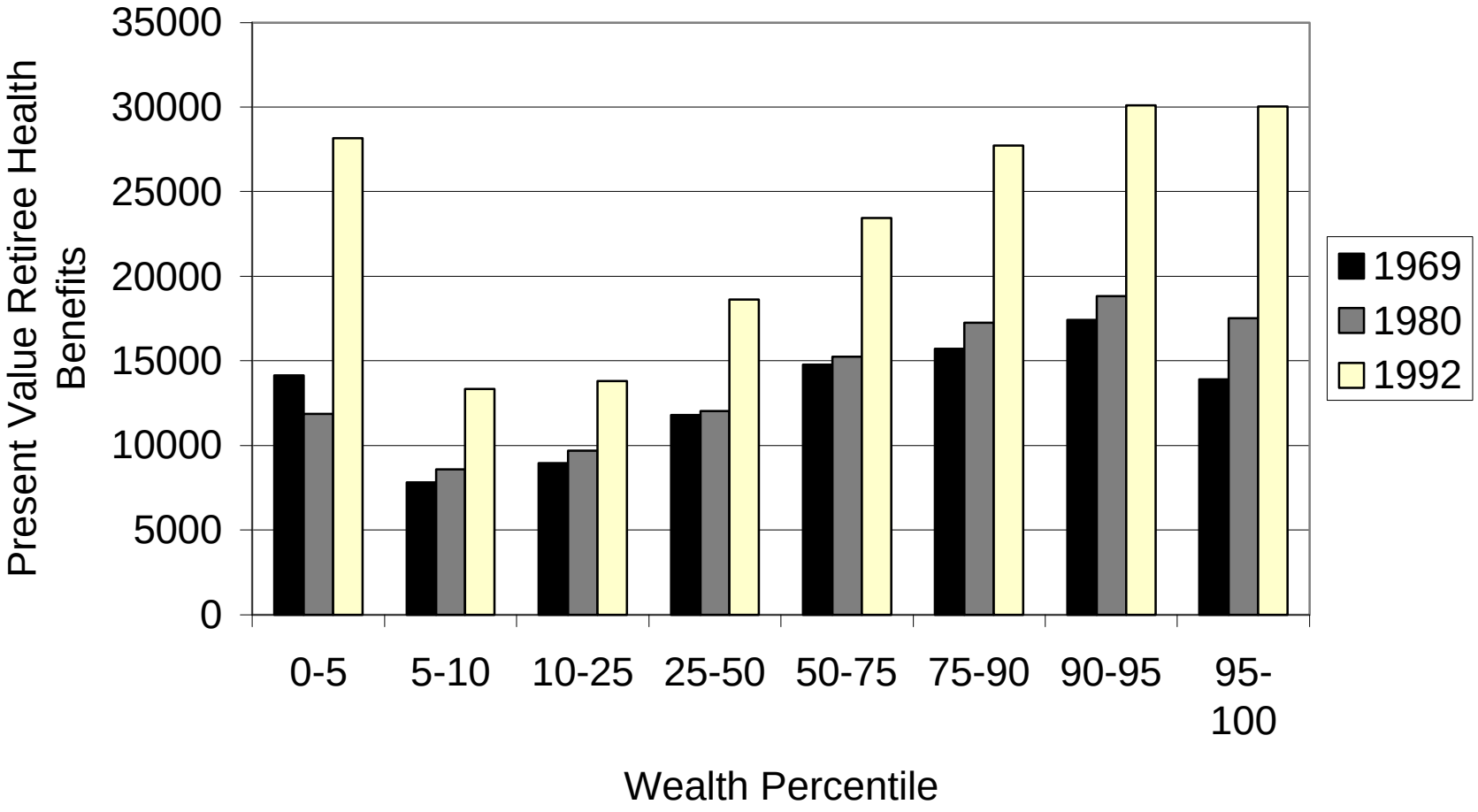

Figure 9: Retiree Health Benefits
Average Among All Households

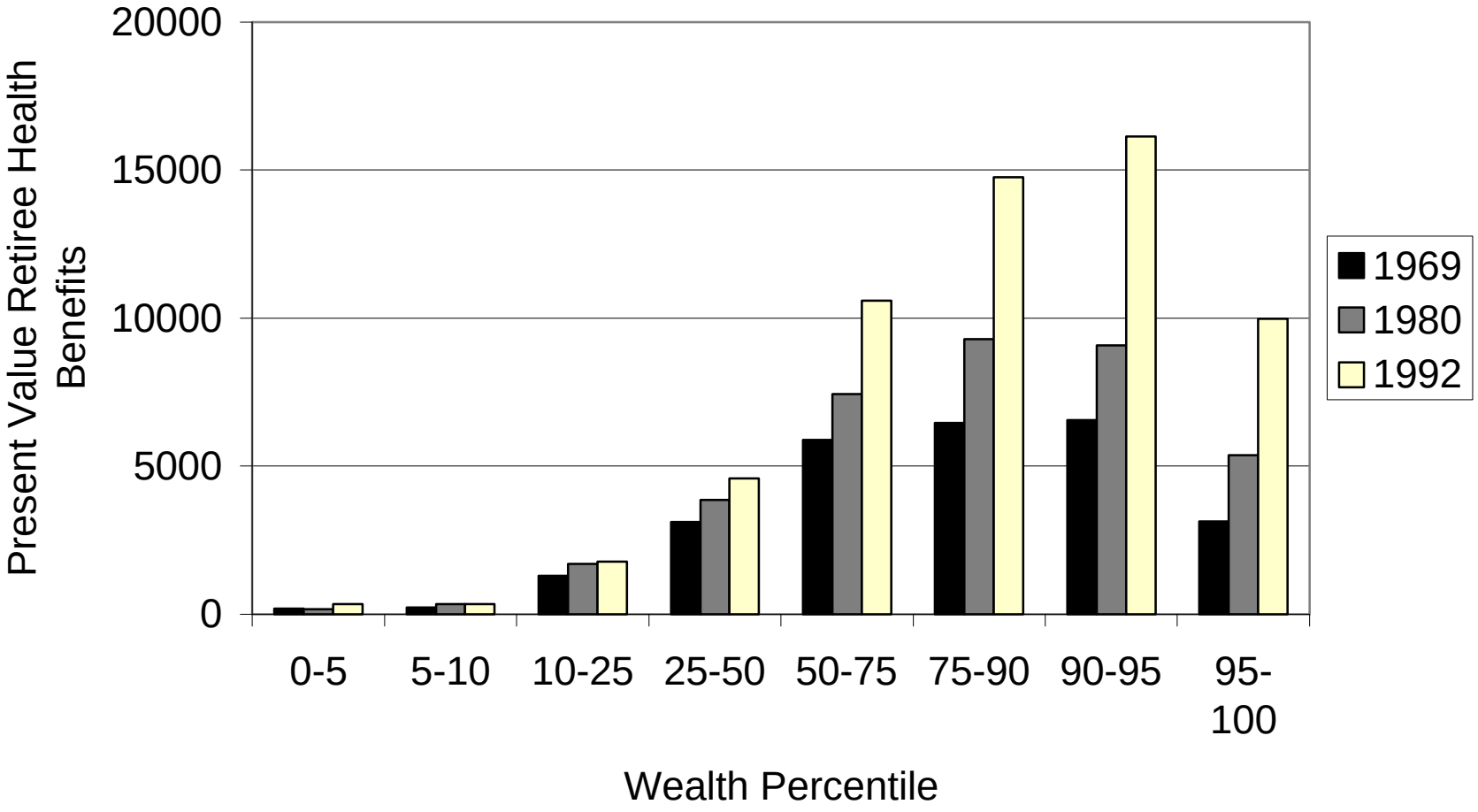

Figure 10: Percent of Wealth From Retiree Health