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Are Baby Boomers Living Well Longer?

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Abstract

This chapter uses the Health and Retirement Study to describe the relationship between work and health for older persons by age. We examine not only the patterns within a given cross-section, but also we study trends in health at ages 51-56 between 1992 and 2004. Most retirement occurs well before the onset of work-limiting disability, leaving a large reserve of potential for longer worklives. Baby Boomers will likely have to draw on this reserve, yet its health is not demonstrably better than that of persons born a dozen years earlier. Nevertheless, advances in medical care for health conditions that most 51-56 year olds have not yet encountered may still yield better health at older ages for the Boomer cohort.

Disciplines

Economics

Comments

The published version of this Working Paper may be found in the 2007 publication: *Redefining Retirement: How Will Boomers Fare?*.

Chapter 5

Are Baby Boomers Living Well Longer?

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How and when Baby Boomers choose to retire, and how prepared they are financially, are vital questions for this generation as well as for policymakers. An important factor in understanding the retirement prospects of Baby Boomers has to do with their health and how it may affect their capacity for continued work at older ages. The Health and Retirement Study (HRS) was conceived precisely to address key questions regarding the interplay of health, work, and economic status from middle age onward. The survey asks respondents relatively objective questions about major health conditions (e.g. heart problems, cancer, diabetes, stroke, lung disease, hypertension, and arthritis), and it also inquires about difficulty performing a range of physical and cognitive tasks (cf. Fonda and Herzog 2004; Fisher et al. 2005). In addition, the survey poses more subjective questions about how respondents rate their health, whether their health limits the kind or amount of work they can do, and what their expectations are of surviving to future target ages.[1] In addition to questions about hours, pay, and type of work, the HRS asks about work expectations past ages 62 and 65. These expectations questions appear to predict actual behavior and also respond to changes in factors predicting work (Chan and Stevens 2001).

The chapter begins with an overview of the relationship between physical function, disability, and work status by age, based on cross-sectional data from HRS 2004. This demonstrates that while poor health is an important factor in early labor force exit, most retirement occurs among people still fit enough to work. Further, there is a substantial reserve of physical capacity for work among the retired. We then turn to a cross-cohort comparison of 51–56-year olds in at three points in time, namely 1992, 1998, and 2004. We conclude that Baby Boomers in early middle age do not appear to be healthier than the cohorts born before them. We offer some thoughts about why this is so, and how it might still be consistent with improved functioning in old age.

Prior Evidence Linking Health and Retirement

Many prior studies have demonstrated that poor health is linked to labor force withdrawal (cf. Bound et al. 1999; Currie and Madrian 1999). In the

United States and to a greater degree in a number of European countries, this process is facilitated by disability insurance (DI) programs providing benefits to people deemed unable to work for medical reasons (Bound and Burkhauser 1999). Even with such programs, however, major health problems can still have a powerful depressing effect on work, income, and retirement saving (Smith 1999).

Important as such events are for the individuals and families experiencing them, they still represent a distinct minority of labor force exits for older Americans, as is clear from a review of the association between health and work at older ages. The HRS provides a perspective on the relationship between work and health at older ages in several different sections of the survey. For instance, it has direct questions about health conditions and difficulties performing simple tasks due to health problems. In a different part of the survey dealing with work disability, respondents are asked whether they are limited in any way in the kind or amount of work they can do, because of a health problem. We emphasize the more objective reports of health and functional status, over self-reported work limitations, due to the widely recognized problem of 'justification bias'. This is believed to arise when those not working seek to justify their status by alluding to health problems; obviously this renders self-reported work limitations endogenous (Bound 1991; Dwyer and Mitchell 1999; Kreider 1999). Thus some of the nonworking may misclassify themselves as unable to work when in fact they could work, and this is more likely for persons in age groups where most people work. At older ages where relatively few people work and many have been out of the labor force for a long time, the HRS question about health problems limiting work may seem irrelevant to many people (because their nonwork status is explained by other factors).

Our approach is to emphasize instead, persons' reported difficulty performing basic tasks. These are self-reported and therefore not immune to distortion, but they do not directly refer to work-related activities; further, they appear in a part of the survey about health, and not about work. These fall into two categories, namely the 'ADLs' or activities of daily living, and the IADLs or instrumental activities of daily living. Impairment in these activities (getting dressed, preparing a meal) generally signals a quite severe level of disability, often requiring assistance from other persons or special devices. Certainly many people with significant ADL or IADL impairments could be considered unable to work. Nevertheless, physical impairment short of the ADL/IADL threshold can also make paid work difficult or impossible. Accordingly, the HRS also asks twelve questions derived from research by Nagi (1991), regarding difficulty with other tasks ranging from jogging a mile to walking up a flight of stairs, and from pushing heavy objects to picking up a coin from a table. Having difficulty with six or more activities including these twelve Nagi items and the ADL and IADL

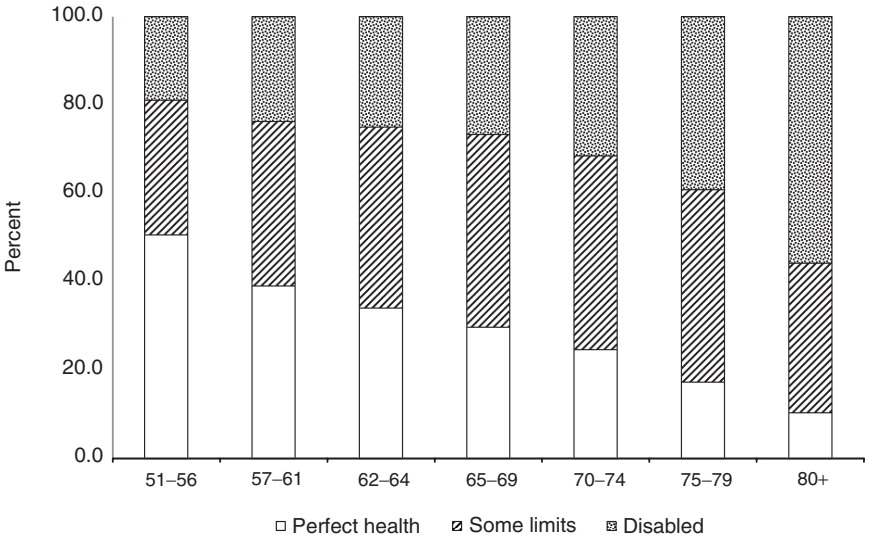

Figure 5-1. Health status by age in the cross section: HRS 2004. *Note*: Health categories are defined by the number of physical limitations based on Nagi items plus 6 ADLs plus 5 IADLs (see text). 'Perfect health' is zero or one limitation; 'Some limits' means 2–5 limitations; and 'Disabled' is 6+. Someone with two or more ADLs or two or more IADLs is also classified as disabled. (*Source*: Author's calculations.)

items is generally associated with a very high likelihood of inability to work. The six most common difficulties reported are (in descending order of frequency) jogging a mile, climbing several flights of stairs, stooping or crouching, walking several blocks, getting up from a chair after sitting for two hours, and pushing large objects. Six or more difficulties are an arbitrary cutoff, of course, but the descriptive results provided below will follow, given reasonable alternative measures.

Figure 5-1 shows how health changes with age.[2] The fraction of people with no functional limitations falls with age. Below age 60, some 20 percent of respondents have enough physical limitations that they probably cannot work, while about 40 percent have no limitations. The middle category with some functional limitations is relatively large but it does not grow terribly quickly with age. At older ages, more people move into the physically unable to work category, though even above age 80, nearly half the community-dwelling population is not impaired at that level.

The association between physical limitations and actual work is far from exact, as is evident from Figure 5-2 which links labor force attachment to age and functional status. Persons with six or more physical limitations are much less likely to work than the other two groups, but at ages 51–56,

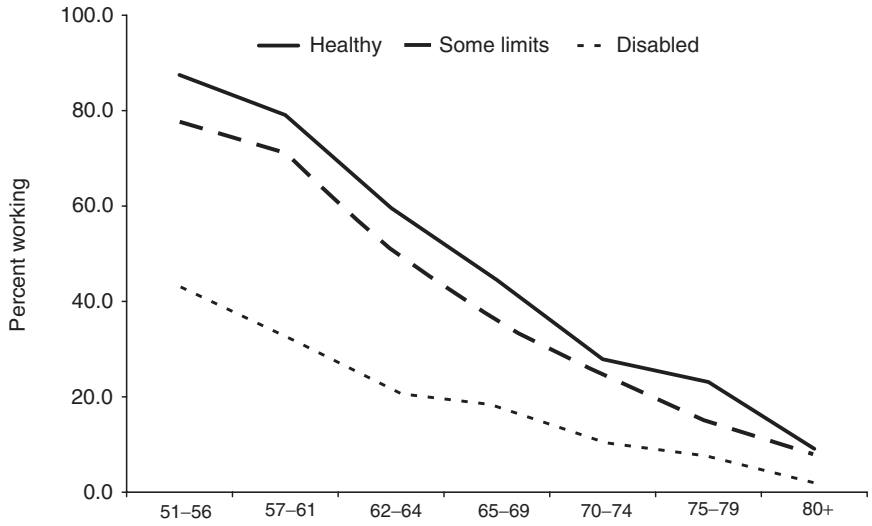

Figure 5-2. Percent working by age and health status: HRS 2004. *Notes*: Health status is as defined in Figure 5-1. Working is defined as reporting doing any work for pay. (*Source*: Author's calculations.)

almost 40 percent of that group does work. Slightly fewer people work in the intermediate health category than in the group with no limitations at all. The clear message from Figure 5-2 is that the decline in work with age is not primarily driven by age-related changes in health. Rather, work rates decline precipitously with age in all three categories. By age 70, fewer than 30 percent of the people with no physical limitations are working. These two observations—the 40 percent labor force participation rate of the most impaired below age 56, and the 30 percent participation rate of the least impaired at age 70—indicate the very great extent to which the decision to work at older ages is not completely tied to health status.

Next we combine the information from the first two figures to show the distribution across three states: working, able to work but not working (perfect health or some limits), and unable to work. Figure 5-3 shows that the middle category of 'able to work but not working' comprises nearly half the population between ages 65 and 79. At ages 70–74, almost three quarters of the population are able to work but less than one-quarter do. That many retired people are physically able to work is not an artifact of the cutoff we have used to define inability to work. Among persons aged 65–79 who are not working, 50 percent have three or fewer task difficulties. Among the 30 percent of that age group of nonworkers with six or more task difficulties is 10 percent of the population with six or seven difficulties.

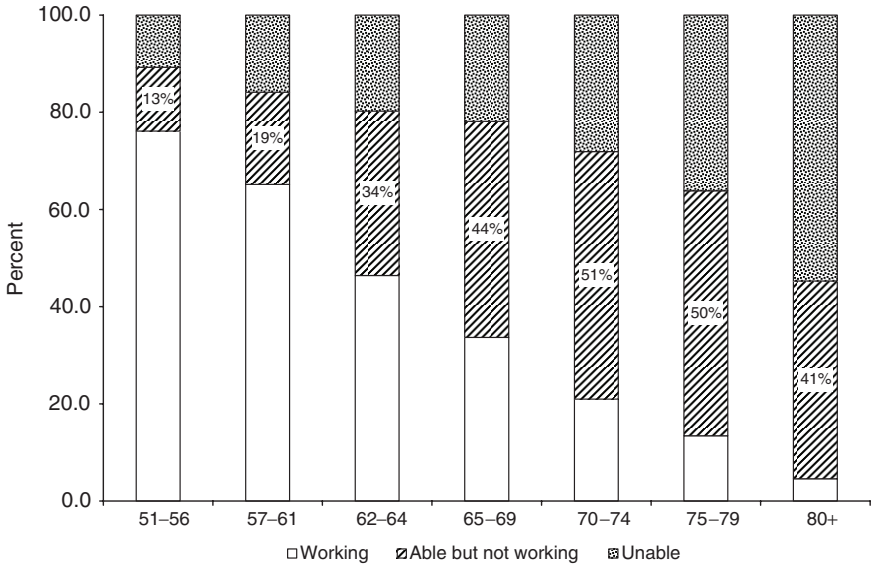

Figure 5-3. Work and health status by age: HRS 2004. *Notes*: Working is defined as doing any work for pay, regardless of health status. The not working population is divided between those unable to work (six or more physical limitations) and those able to work (five or fewer limitations). (*Source*: Author's calculations.)

One way to summarize the data in Figure 5-3 is to compute the expected years of life in each state. Demographers have similarly estimated 'active life expectancy', using slightly different and more severe definition of disability (a level severe enough to require assistance with basic daily activities). Here, we divide expected remaining years of life into work years, years of not working while in health that is good enough to permit work, and years of being physically unable to work, following Sullivan (1971). Using the 2002 life table for the general US population, people currently 51–56 years of age can expect to live an additional 27.3 years. This may be divided into 9.7 years of work, 9.9 years of reasonably good health while not working, and 7.7 years of physical limitations that would generally prevent work. While we lack adequate data to make similar calculations for earlier eras in American history, in all likelihood most of the increase in years of retirement over the last century has come through increases in years of 'healthy' retirement, that is, not working when physically able to do so. Those nearly ten years of expected healthy retirement represent a considerable reserve of potential work that prospective retirees could tap if necessary to maintain consumption levels in retirement.

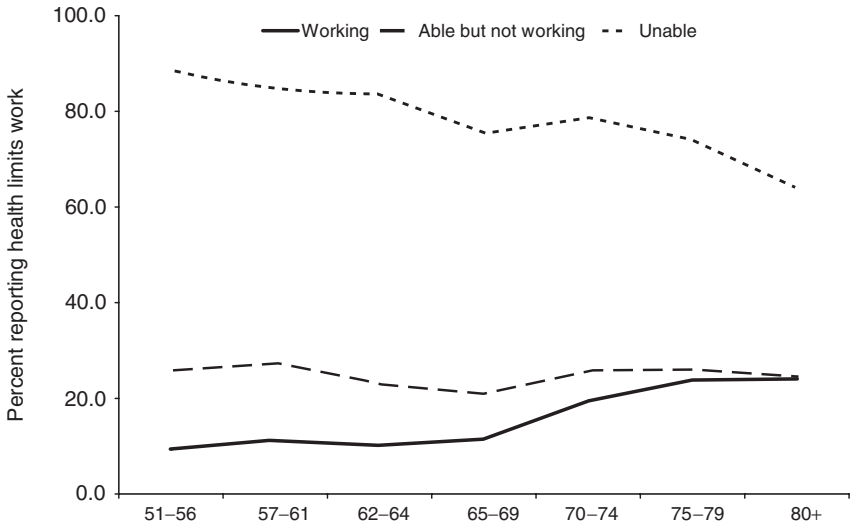

Figure 5-4. Percent reporting a health problem limits work by age and work/health status: HRS 2004. *Notes:* Work/health status defined in Figure 5-3. A health-related limitation on work is any limit on the kind or amount of work, not a complete inability to work. Due to a programming error in HRS 2004, everyone who reported a work limitation in 2002 was not asked in 2004. A fraction of this group was imputed to 'no' in 2004, based on conditional transition rates for 2000–02 by age, sex, work status, and health status. (*Source*: Author's calculations.)

Next, we introduce self-reports of work limitations due to health and compare them to the somewhat more objective health measures just reviewed. Figure 5-4 indicates the fraction of each group report it has a health problem that limits its ability to work in any way. At ages 51–56, some 90 percent of those in the group with multiple objective health problems also report that they are limited. Only 10 percent of those who are working say so (most of whom also have objective health problems as shown in Figure 5-2). With increasing age, the fraction of the objectively disabled who reports a work limitation declines. This is almost certainly a survey response problem, in that, as work becomes less and less relevant with age, people fail to link their nonwork with their poor health. With age, the fraction of workers reporting some limitations increases, as one would expect given the age-related changes in health.

We next show alternative ways of defining limited capacity to work (Figure 5-5). Generally speaking, the two measures agree: the largest group at each age is those who self-report having work limitations due to health problems and who also report objective health problems that would impair

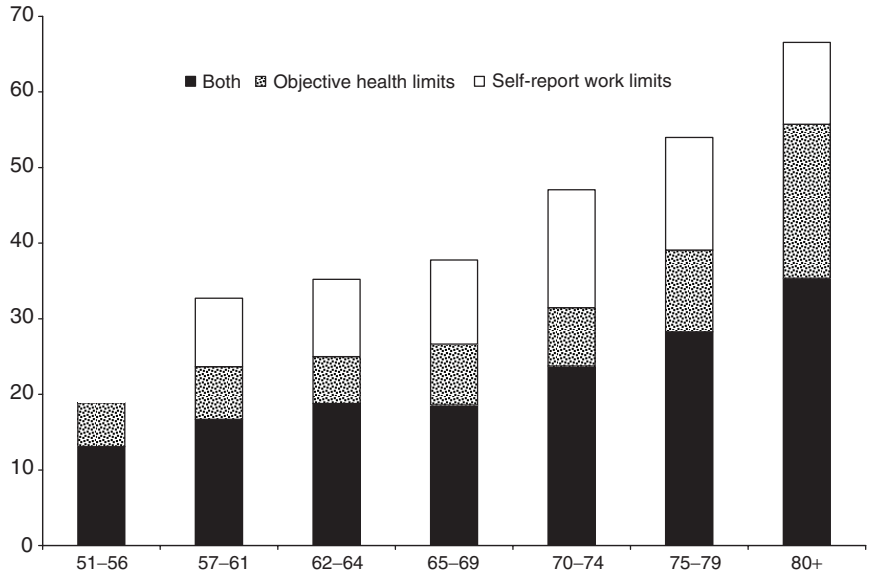

Figure 5-5. Ability to work: objective health and self-reported limits to work. *Notes:* 'Objective' health limits means six or more physical limitations. 'Self-report' is the work limitation question described in Figure 5-4. 'Both' means both are true. (*Source*: Author's calculations.)

most types of work. The sizes of the groups reporting their work capacity as limited but not reporting severe physical limitations, and those with severe limitations but who do not report any limit on ability to work, are about equal. Computing expected years of life by state, we find about 6.2 years in the state of disability by both definitions, and about three years in each of the discordant categories. Thus, by the most inclusive possible measure of disability—having *either* a self-reported limitation on work due to health *or* a number of physical limitations that should impair work—the total expectation of any kind of work constraint due to health is about twelve out of the twenty-seven years of life expectancy for a 51–56-year old. This leaves at least fifteen years of potential work.

Are Boomers Healthier?

Table 5-1 reveals what the Early Baby Boomer (EBB) group thinks of its own health, and compares these reports with those from previous birth cohorts at the same age. It is interesting that Boomers believe their health to be worse than their predecessors. For instance, to the general self-rated health

TABLE 5-1 Cross-Cohort Comparisons of Health Measures for Respondents Aged 51–56 in Different HRS Cohorts

Birth Year	*Self-rated Health (5 = poor, 1 = excellent)*	*Fair or Poor Health*	*Number of Limitations*	*Number of Health Conditions*	*Subjective Probability of Survival to Age 75*	*Health Limits Work*
Men						
1936–41	2.39	16.7%	2.12	0.70	62.3	17.5%
1942–47	2.51	19.3%	2.12	0.68	61.8	17.8%
1948–53	2.59	22.1%	2.06	0.71	60.7	19.2%
t-statistic	4.82	3.83	−0.69	0.42	−1.42	1.22
Women						
1936–41	2.45	19.1%	3.01	0.67	67.0	18.4%
1942–47	2.60	22.4%	3.07	0.62	69.3	21.4%
1948–53	2.64	22.7%	3.04	0.71	66.2	19.8%
t-statistic	5.03	2.81	0.33	1.54	−0.86	1.05

Source: Author's calculations.

Notes: The *t*-statistic tests the hypothesis of no change between the birth cohort of 1936–41 (assessed in 1992) and the cohort of 1948–53 (assessed in 2004).

question (where 1 = excellent to 5 = poor), Boomers gave themselves a worse health rating of about two-tenths of a point. This was the same for both men and women and the differences are statistically significant. Such a change in mean self-rated health cannot be explained only by Boomers being less willing to report excellent health, since the fraction reporting fair or poor health also rose significantly from the original HRS cohort of 51–56-year olds to the Boomers a dozen years later. By contrast, most of the other summary health measures offers no clear time trend (if downwards, the trend is not statistically significant). For instance, Boomers report about the same number of physical limitations and very slightly more health conditions. They give themselves slightly lower chances of survival to age 75, and they are slightly more likely to report that their ability to work is limited by a health problem. The general pattern, then, is that objectively speaking, Boomer health is no better than that of the earlier cohort at the same age, yet subjectively Boomers feel themselves to be in slightly worse health.

Table 5-2 compares the cohorts on key health-related behaviors. It is evident that two opposing trends are at work: smoking is on the decline, but obesity is on the rise. Fewer Boomers ever smoked and fewer were still smoking at age 51–56 than in the HRS cohort. Obesity is detected using the body mass index (BMI), a measure of body weight relative to height. For a person of average height, one point of BMI is associated

TABLE 5-2 Health Behaviors for Respondents Aged 51–56: Cross-Cohort Comparisons

	Ever Smoked	*Smoke Now*	*Body Mass Index*	*Obese*	*No Church Attendance*
Men					
1936–41	73.8%	30.2%	27.3	21.3%	32.3%
1942–47	69.1%	26.8%	28.2	28.9%	
1948–53	62.2%	26.2%	28.3	28.4%	36.3%
t-stat.	−6.81	−2.49	5.69	4.51	2.29
Women					
1936–41	54.7%	26.8%	26.8	24.6%	21.5%
1942–47	54.6%	24.4%	27.7	28.3%	
1948–53	47.3%	19.4%	28.3	34.1%	25.4%
t-stat.	−4.53	−4.53	7.26	6.30	2.74

Source: Author's calculations.

Notes: The *t*-statistic is for the hypothesis of no change between the birth cohort of 1936–41 (assessed in 1992) and the cohort of 1948–53 (assessed in 2004).

with a gain of 5–7 pounds, and means BMI was up over a point in just a dozen years. Obesity is commonly defined as a BMI of 30 or higher; in our sample, the percentage of obese was up by 7 percentage points for men and nearly 10 for women. While physical activity would be another important health behavior to document, the HRS measures are not consistent across waves. Regular church attendance is associated with lower mortality even controlling for observable health, and Boomers are slightly more likely to report not attending church in the past year than the HRS cohort (this question was not asked in HRS from 1994 to 2002).

Turning to the prevalence of some specific health conditions, we see from Table 5-3 that the patterns closely mirror other changes in health behaviors. Lung disease, which is highly sensitive to smoking, declined from 1992 to 2004. Diabetes, which at older ages is highly related to obesity, increased. Hypertension is affected by both and shows no clear trend. Obesity is also related to arthritis, mobility difficulty, and joint pain. Arthritis rates are higher for the Boomers, and self-reported pain and pain-related activity limitation are also up. These changes may help account for some of the poorer self-ratings of health revealed in Table 5-1.

The Structure of Health Relationships

There are several interesting interrelationships among health variables. For example, the expectation of survival to age 75 is potentially an

TABLE 5-3 Specific Health Conditions for Respondents Aged 51–56: Cross-Cohort Comparison

	Lung Disease	*Diabetes*	*High Blood Pressure*	*Arthritis*	*Frequent Pain*	*Pain Limits Activities*
Men						
1936–41	6.9%	8.5%	37.2%	24.4%	20.5%	12.7%
1942–47	4.2%	10.1%	34.9%	26.1%	24.5%	14.2%
1948–53	4.7%	12.5%	36.2%	27.4%	29.7%	16.9%
t-stat.	−2.53	3.65	−0.56	1.94	5.79	3.27
Women						
1936–41	7.3%	8.3%	33.8%	36.4%	26.9%	16.9%
1942–47	5.4%	8.3%	30.1%	37.7%	31.1%	21.6%
1948–53	6.2%	11.0%	35.4%	39.6%	33.2%	22.1%
t-stat.	−1.33	2.85	1.06	2.03	4.20	4.05

Source: Author's calculations.

Notes: The *t*-statistic is for the hypothesis of no change between the birth cohort of 1936–41 (assessed in 1992) and the cohort of 1948–53 (assessed in 2004).

important variable in models of retirement and saving. Earlier waves of HRS indicate that this question does have large measurement error variance and a pronounced heaping on focal values of 0, 50, and 100, it nonetheless does have validity both in its association with known risk factors and in its predictive power (Hurd and McGarry 2002; Hurd et al. 2004). One strategy for using this variable in empirical work is to use instrumental variables (IV) to mitigate the effects of measurement error, with self-rated health a potential candidate instrument (Gan et al. 2005). Figure 5-6 shows that the relationship between self-rated health and survival expectations is nearly identical in 1992 and 2004.[3]

Changes in self-rated health are explored more fully in Table 5-4 using multivariate linear regression models to assess how much of the change in self-rated health may be explained by observable health measures. The data used are pooled data on 51–56-year olds in 1992 (born 1936–41), 1998 (born 1942–47), and 2004 (born 1948–53). No individual appears more than once. The first model includes only year dummies (cohort).[4] As we saw in Table 5-1, the Early Boomers interviewed in 2004 rated their health about 0.2 worse (higher on the scale) than the 1992 group. The second model introduces the number of health conditions, number of physical limitations, and an indicator for experiencing frequent pain. These three variables explain a high fraction of the variance in self-rated health, but they reduce the Early Boomer differential only a little (and most of that is due to the increased report of pain). Our third model introduces

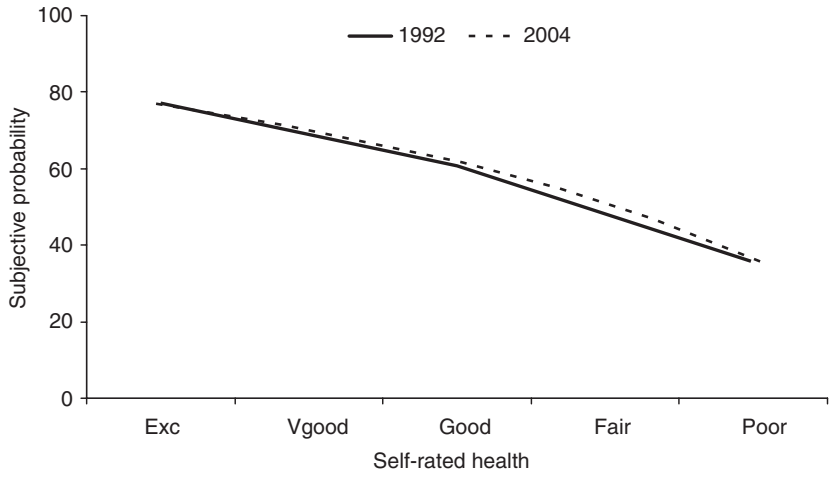

Figure 5-6. Subjective probability of survival to age 75 and self-rated health: comparing the original HRS (1992) to Early Boomers (2004). (*Source*: Author's calculations for the HRS 1992 final release and HRS 2004 early release.)

health behaviors. People who smoke or who are obese discount their health for these behaviors, even when controlling for their current health status. However, because those health behaviors are moving in opposite directions, they do not explain away the Boomer differential in self-rated health.

Table 5-4 Determinants of Self-Rated Health for Respondents Aged 51–56: Cross-Cohort Comparisons

Independent Variable	*Coeff.*	t-*stat.*	*Coeff.*	t-*stat.*	*Coeff.*	t-*stat.*
Constant	2.423	146.45	1.645	103.26	1.569	92.07
War Babies	0.137	4.75	0.130	5.99	0.130	6.00
Early Boomers	0.195	6.94	0.162	7.59	0.159	7.42
No. of conditions			0.373	29.65	0.363	28.81
No. of limitations			0.171	36.43	0.163	34.14
Frequent pain			0.337	12.06	0.335	12.03
Obese					0.130	5.73
Smoker					0.256	11.17
R^2		0.004		0.436		0.447

Source: Author's calculations.

Notes: The dependent variable is self-rated health, scored from 1 = excellent to 5 = poor. There are 11,906 observations pooling three cohorts of 51–56-year olds (5,578 for HRS in 1992, 3,083 for War Babies in 1998, and 3,257 for Early Boomers in 2004).

It seems, therefore, that the subjective decline is perceived in Baby Boomer health compared to earlier cohorts cannot be easily explained by observable changes. It is well to note, nevertheless, that the magnitude of the differential is not large; it is equivalent to having one additional physical limitation, and only about one-third of a condition like diabetes or heart disease. One likely place to look for explanation might be in mental health measures of stress or depression. Unfortunately, the depression measure used in HRS was changed after 1992 and it is not easy to render them comparable.

Links Between Health and Education

Finally, we turn to an examination of the relationship between health and education. Prior studies have found a so-called socioeconomic status (SES) 'gradient', in which health is better for those with more education, more income, and more wealth. Many economists have focused in particular on the relationship with education (Grossman and Kaestner 1997). A number of possible causal mechanisms have been hypothesized, such as a relationship between education and the ability to acquire information about health or to manage complex regimens (Goldman and Smith 2002). Models of reverse causality, from health to education, are more relevant to childhood health than to health of the elderly, but links from childhood health to health at older ages would qualify as an example of the third type of causal mechanism through unobserved third factors, which might also include factors such as rates of time preference, or unobserved, possibly genetic, correlates of health and educational attainment.

Mechanisms by which education could itself produce better health would suggest that cohort improvements in education should lead to cohort improvements in health. Freedman and Martin (1999) associated the trend improvement in physical functioning above age 65 from 1984 to 1993 with the time trend improvement in education. Based on the cross-sectional relationship of education and functioning, over half of the trend in function could be attributed to the trend in education (with an additional boost from a slightly stronger effect of education on function at the end of the period). Continued declines in disability at older ages would thus be predicted, as more recent cohorts with higher education entered their older years. What does this imply for Boomers? As noted above, Baby Boomers are significantly more educated than earlier cohorts: Early Boomers averaged 13.5 years of schooling versus 12.5 years for the original HRS cohort (*t*-statistic = 14). And yet, as we have seen, their health and functioning are no better (and possibly worse) at ages 51–56. Table 5-5 shows that, controlling for education, the health of the Early Boomers is

TABLE 5-5 Education and Health for Respondents Aged 51–56: Cross-Cohort Comparisons

	Self-Rated Health		*No. of Conditions*		*No. of Limitations*	
	Coeff.	t-*stat.*	*Coeff.*	t-*stat.*	*Coeff.*	t-*stat*
Constant	4.082	74.23	5.562	38.18	1.117	25.32
War Babies	0.210	7.69	0.156	2.35	−0.015	−0.72
Early Boomers	0.324	12.05	0.213	3.16	0.065	3.01
Years of educ.	−0.133	−31.70	−0.238	−21.47	−0.035	−10.32
R^2		0.114		0.014		0.059

Source: Author's calculations.

Note: See Table 5-4.

worse than that of the HRS cohort, and that is true for both the objective as well as self-rated health measures. Tests for change in the slope of the gradient show that the relationship between education and health itself has not changed—health is simply lower at every level of education in 2004 than in 1992. This is shown graphically for self-rated health in Figure 5-7.

Certainly these descriptive results are not conclusive proof that education does not have a causal role in improving health. They do, however, suggest

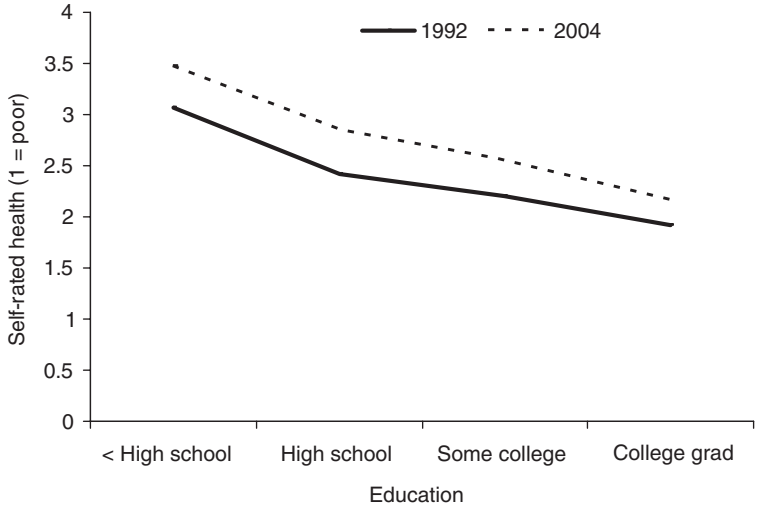

Figure 5-7. Comparing health and education for the original HRS (1992) to Early Boomers (2004). (*Source*: Author's calculations using HRS 1992 final release and HRS 2004 early release.)

that caution be used in projecting future improvements in health solely on the basis of improving education.

Looking Ahead

How might we reconcile the fact that the Early Boomers at age 51–56 seem to be in no better health objectively than the cohort twelve years before, and subjectively they feel in worse health? This is despite other evidence that disability has been declining and health improving for the last few decades (Cutler 2001; Freedman et al. 2002). Some have suggested that the rise in obesity may nullify the trend toward declining disability and longer life (Sturm et al. 2004; Olshansky et al. 2005). But crude extrapolation of trends based on cross-sectional correlations is no more reliable for obesity and health than for education and health. Already there is evidence that obesity's effect on health is weakening as it becomes more common (Flegal et al. 2005).

One point to note is that demonstrated health and functioning gains have come at older rather than younger ages (Freedman and Martin 1998), as to some extent they are the result of better medical treatments for established conditions. Thus treatments for cholesterol, hypertension, and diabetes have improved dramatically over the last 10–15 years, improving work and other outcomes (Kahn 1998). Offsetting the gain in obesity, reductions in cholesterol and blood pressure have been found in every category of body weight (Gregg et al. 2005). Medications for these are mainly given to people who have developed hypertension or diabetes or high cholesterol, and they can help prevent the worsening of those conditions and the progression to even worse problems, notably heart disease and stroke. Similarly, the treatment of survivors of heart attack and stroke has made great strides.

A key point to recall is that Early Boomers are still young, in their early 50s. To a large degree, then, most have not yet developed the more severe chronic diseases that will challenge their ability to work or to live independently. Nevertheless they are taking advantage of improved medications. For instance in 1992, 60 percent of 51–56-year olds with hypertension were on medication, a figure that rose to 78 percent by 2004. Similarly, in 1992 only 41 percent of people with diabetes were on oral medications; this rose to 69 percent by 2004. The numbers on insulin remained stable, indicating that the average severity of the disease was not increasing. Rather, the use and effectiveness of medications and other medical treatments will likely determine the future health of the Boomers, rather than mechanistic associations with education or obesity.

As Baby Boomers move into late middle age, there is no indication that their health is any better than for cohorts born a dozen years earlier but assessed at the same ages. Boomers have smoked less but suffer more from obesity and obesity-related conditions. Nonetheless, these health conditions should not deter Boomers from fulfilling their expectations of working longer (cf. Maestas, this volume). Most retirees in their 60s and 70s are physically able to work, so that even barring gains in health; most Boomers could defer retirement several years. In the meantime, the health trajectories of the leading Baby Boomers will be well worth watching.

Acknowledgments

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Notes

[1] Beginning in 2006, the survey will add several direct health measures to the questionnaire, including blood pressure measurement, some limited blood tests, and measures of physical performance.

[2] The HRS sample design lends itself well to cross-cohort comparisons, though one must be aware of the distinction between HRS 'entry' cohorts, defined by the year they entered the sample, and 'true' birth cohorts, defined by their year of birth. The first HRS cohort introduced in 1992 consisted of persons aged 51–61 (born 1931–41), and their spouses. In 1998, a new cohort of persons aged 51–56 (born 1942–47) was introduced to refresh the sample due to the aging of the original HRS cohort (then aged 57–67). Some members had already joined the study in 1992 or later as younger spouses of original HRS cohort members. Thus the new sample added in 1998 consisted only of persons who were either single or married to someone born after 1941. A correct cross-cohort comparison of 51–56-year olds in 1992 and 1998 must include, in the 1998 group, both the new sample members inducted in 1998, and the other persons in the same birth cohort who entered the study before 1998. Similarly, in 2004, the sample was again refreshed with a new cohort of persons 51–56 years of age (born 1948–53), supplementing those already in the study as younger spouses with new sample members who were either single or married to someone born after 1947. Persons who entered the study in 1992 are referred to as the HRS entry or original cohort, persons who entered in 1998 as the War Baby (WB) entry cohort, and persons who entered in 2004 as the Early Boomer entry cohort. The same names can also be used for birth cohorts corresponding to the target birth years of each of those entry cohorts, with the understanding that not all members of the WB entry cohort were in the 1942–47 birth cohort, nor were all the members of the 1942–47 birth cohort brought in with the entry cohort of 1998 (and the same is true for the Early Boomers).

[3] More detailed statistical analysis also finds no significant structural change in the relationship between the two periods, although survival probabilities conditional on self-rated health are slightly higher (or, conversely, self-rated health is somewhat lower for the same survival probability; given the high variance of survival probabilities, the change is not statistically significant).

[4] As self-rated health is a categorical variable, ordered Probit may be a more appropriate statistical procedure. In fact, we find (in results not reported here in detail) that the ordering is not far from linear. That is, ordered Probit results do not differ in any meaningful way from those of OLS and are more difficult to summarize, so we present here the OLS results.

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