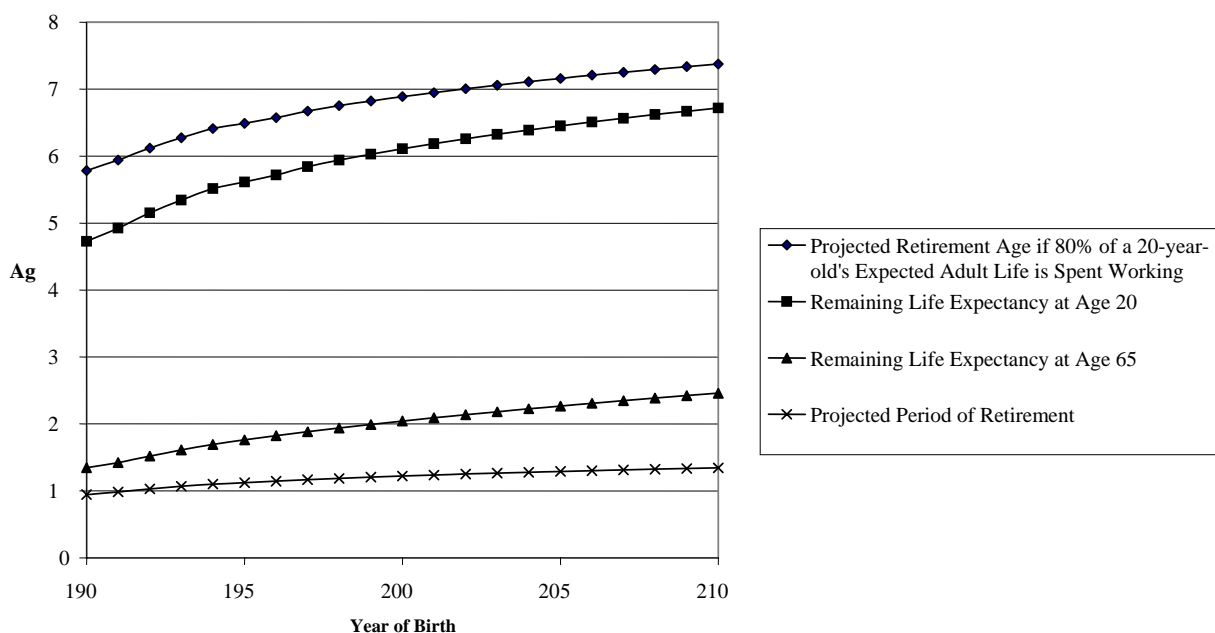


Figure 10. Projected Retirement Age If Individuals Work 80% of Their Adult Lives, 1900 to



Source Felicitie C. Bell and Michael L. Miller, *Life Tables for the United States Social Security Area 1900-2100* (Social Security Administration, Office of the Chief Actuary, Actuarial Study No. 120, 2005), table 7.

Figure 10 also shows the remaining life expectancy for males at age 65 for cohorts born from 1900 to 2100 and the projected period of retirement that would result if 20 percent of a 20-year-old's adult life is spent in retirement.⁷⁰ Pertinent here, those who actually live from age 20 until their projected retirement age will actually experience retirement periods approximately equal to their remaining life expectancy at that time. For example, a male born in 1950, who turned 20 in 1970 and who lives until his projected retirement age of 65 is likely to have an actual retirement period somewhere between the 11-year projected period of retirement for his birth cohort in Figure 10 and the 17.62-year remaining life expectancy projected for the members of his birth cohort that actually reach age 65 (in 2015). If so, he would, in fact, work around

⁷⁰ Mathematically, the expected period of retirement (RP) for each cohort is equal to 20 percent times that birth cohort's remaining life expectancy at age 20 (RLE20):

$$RP = 0.20 \times RLE20.$$

For example, given that a 20-year-old man in 1970 had a remaining life expectancy of 56.13 years, he should, at age 20, have expected to have a period of retirement of about 11 years ($11.226 = 0.20 \times 56.13$). Of course, those who actually live to be 64.904 years old and retire at that age will, on average, have remaining life expectancies *at that time* that are much longer than 11.226 years, and so those that live until their retirement age would actually have somewhat longer retirements.

45 years (from 20 to 65) and have almost 18 years of retirement (from 65 to 83), and he would actually spend over 28 percent of his adult life in retirement.⁷¹

We could, of course, spin endless possible variations on this constant-ratio-of-work-to-retirement approach. In that regard, going all the way back to 1900, as Figure 10 does, may not be all that relevant. We could instead assume that the Social Security system got it about right when it set the full retirement age at 65 for beneficiaries retiring in 1940, and then we could ask how the full retirement should have increased since then. Pertinent here, the Social Security Administration periodically estimates “equivalent retirement ages” for years after 1940, based on a measure that keeps constant the ratio between work and retirement years as life expectancy increases. For example, column 2 of Table 8 shows that if we assume that the Social Security system got it about right when it set the full retirement age at 65 for beneficiaries retiring in 1940, then the full retirement age should now be around age 70, and it should reach age 73 by 2070.⁷² Needless to say, we are a long way from those optimal full retirement ages.

⁷¹ $0.2857 = 18 \text{ years of retirement} / 63 \text{ years of adult life}$; $63 \text{ years of adult life} = 45 \text{ years of work as an adult} + 18 \text{ years of retirement}$.

⁷² More specifically, the Social Security Administration estimates keep constant the ratio of the life expectancy at the age of retirement to the working-life expectancy (the number of years between age 20 and the normal retirement age). Assuming that individuals started work at 20, they would have had 45 years in the work force by the age 65 full retirement age in 1940, and the remaining life expectancy of a 65-year-old in 1940 was 12.71 years. Office of the Chief Actuary, Social Security Administration, *Life Expectancy and Ratio of Life Expectancy to Potential Working Years* (Memo, Sept. 16, 2004). Consequently, the ratio of life expectancy to (retirement age – 20) in 1940 was .2824. See also Chen, *above* note 1, 411–412, 412 (table 2), and see Felicitie C. Bell and Michael L. Miller, *Life Tables for the United States Social Security Area 1900-2100* (Social Security Administration, Office of the Chief Actuary, Actuarial Study No. 120, 2005), table 6.

Table 8. Retirement Age for Year Equivalent to Age 65 in Base Year (Years: Months)

Year	Base year			
	1940	1980	2000	2020
1940	65:00			
1960	67:00			
1980	68:11	65:00		
1990	69:08	65:09		
2000	69:11	66:00	65:00	
2010	70:02	66:04	65:04	
2020	70:09	66:11	65:10	65:00
2030	71:03	67:05	66:05	65:06
2040	71:10	67:11	66:11	66:00
2050	72:03	68:05	67:04	66:06
2060	72:09	68:10	67:09	66:11
2070	73:02	69:03	68:02	67:04
2080	73:07	68:08	68:07	67:09

Note: Retirement age is defined as life expectancy at retirement divided by years in labor force where entry into labor force is assumed to be age 20.

Source: Office of the Chief Actuary, Social Security Administration, *Life Expectancy and Ratio of Life Expectancy to Potential Working Years* (Memo, Sept. 16, 2004).

d. Gender Issues

As Table 1 and Figure 4 both show, women live longer than men. At any given age, women have a longer life expectancy and a lower mortality risk. That means that if we actually based normal retirement age on remaining life expectancy or mortality risk, men and women in the same cohort would face different normal retirement ages, and women would be expected to work longer than men. For example, a recent study by the Social Security Administration projects that a 65-year-old man in 2010 will have a remaining life expectancy of 16.4 years, compared to 19.1 years for a 65-year-old woman.⁷³ While it obviously could make sense for women to work longer in order to accumulate the greater retirement savings that they may well need to support themselves throughout their expected longer lives, we view it as unlikely that government policy will ever again mandate a different retirement age for men and

⁷³ Felicitie Bell and Michael Miller, *Unisex Life Expectancies at Birth and Age 65* (Social Security Administration, Office of the Chief Actuary, Actuarial Note No. 2004.2, 2004), table 1.

women, let alone a higher age for women than for men.⁷⁴

The obvious solution would be to use unisex tables. For example, if we were to tie the optimal retirement age to remaining life expectancy, we would use a unisex table of remaining life expectancy. For example, according to the study referred to in the preceding paragraph, the unisex life expectancy for a 65-year-old American in 2010 is projected to be 17.8 years.⁷⁵ Under this approach, if we wanted to fix the optimal retirement age in 2010 as the age at which an individual's remaining life expectancy is equal to, say, 15 years, we would end up setting the normal retirement at around 69½, about halfway between the ages at which the remaining life expectancies of males (68) and females (71) fall below 15 years.⁷⁶

6. Implications for Public Policy

Clearly, life expectancies have increased significantly since the retirement age policies in our voluntary pension system (and Social Security system) were first codified into law, and only minor changes have been made since. We are concerned that current policies may reflect too much deference to employer desires and to the short average retirements of yesteryear. We need to develop a new notion of the optimal retirement age, given what we now know about longevity, health and work in old age, and about how pension policy influences individual decisions about the timing of retirement. This section outlines a number of pension policy changes that could encourage American workers to postpone retirement.

a. Some Modest Pension Reforms that Could Encourage American Workers to Postpone Retirement

i. *Raise the Early Retirement Age Applicable to the Penalty on Premature Withdrawals*

Internal Revenue Code § 72(t) generally imposes a 10 percent tax on pension distributions made before an individual reaches age 59½. It would make sense to raise

⁷⁴ Pertinent here, the Social Security systems in many countries provide lower retirement ages for women than for men. For example, in Albania, Austria, Greece, Isle of Man and Italy the statutory pension age for men is 65, while the statutory pension age for women is 60. Social Security Administration, *Social Security Programs Throughout the World: Europe, 2006* (Washington, D.C.: Social Security Administration, Publication No. 13-11801, 2006), table 3. The U.S. Social Security system also allowed women to draw early retirement benefits at age 62 starting in 1956, while men did not become eligible for those early retirement benefits until 1961. Social Security Administration, *Annual Statistical Supplement to the Social Security Bulletin, 2007* (Washington, D.C.: Social Security Administration, Publication No. 13-11700, 2008), table 2.A2.

⁷⁵ Bell and Miller, *Unisex Life Expectancies at Birth and Age 65*, above note 73.

⁷⁶ Bell and Miller, *Life Tables for the United States Social Security Area 1900-2100*, above note 72, table 10.

the eligibility age to 62, the age at which individuals first become eligible to draw their Social Security benefits. It could also make sense to then index that earliest eligibility age for longevity. In that regard, a recent study suggested that if the earliest eligibility age for Social Security benefits had kept up with increases in longevity since 1961, it would have already reached age 63½ by now.⁷⁷ Of course, if we raised the early retirement age for pensions or Social Security, we would need to make sure to have Social Security Disability Insurance and/or Supplemental Security Income benefits available to those elderly Americans who become disabled when they are still too young to claim their Social Security retirement and pension benefits.⁷⁸

It could also make sense to toughen the penalty on premature withdrawals, by, for example, increasing the penalty tax rate from 10 percent to, say, 20 percent.

ii. Raise the Normal Retirement Age

Along the same lines, it would make sense to raise the normal retirement age for pensions. ERISA generally defines “normal retirement age” as the earlier of the time specified in the plan or age 65. On the other hand, “full retirement age” under the Social Security system is already 66 (in 2008) and is gradually increasing to 67. It could make sense to gradually increase the normal retirement age for pension plans to 67 and tie it to Social Security’s full retirement age, even if that full retirement age is further increased by way of “longevity” indexing.⁷⁹ The empirical evidence suggests that increasing the normal retirement age would encourage workers to stay in the workforce longer.⁸⁰

⁷⁷ John A. Turner, *Promoting Work: Implications of Raising Social Security’s Early Retirement Age* (Boston, Mass.: Center for Retirement Research at Boston College, Work Opportunities for Older Americans Series, Paper No. 12, 2007). Another recent paper suggests that the earliest eligibility age should vary depending upon such factors as the worker’s health, risk of hardship and earnings. Natalia Zhivan, Steven A. Sass, Margarita Sapozhnikov and Kelly Haverstick, *An “Elastic” Earliest Eligibility Age for Social Security* (Boston, Mass.: Center for Retirement Research at Boston College, Issue in Brief No. 8-2, 2008).

⁷⁸ See also Kelly Haverstick, Margarita Sapozhnikov, Robert Triest and Natalia Zhivan, *A New Approach to Raising Social Security’s Earliest Eligibility Age* (Boston, Mass.: Center for Retirement Research at Boston College, Working Paper No. 2007-19, 2007) (suggesting an increase in the Social Security early eligibility age for most workers but leaving it unchanged for those with the highest risk of suffering hardship due to a delay in benefit eligibility).

⁷⁹ We note in passing that we really could call age 70 the “full retirement age” for Social Security as monthly benefits are actuarially increased for those who delay taking benefits until then. Even this simple change in nomenclature could lead many workers to delay retirement past their so-called full retirement ages of 66 and 67 under current law.

⁸⁰ See, e.g., Henry Aaron, *Should Policy Be Designed to Encourage Later Retirement?* (paper presented at the first annual Joint Conference for the Retirement Research Consortium, Washington, D.C., May 20, 1999).

iii. Raise the Minimum Distribution Age

Internal Revenue Code § 401(a)(9) generally requires participants in retirement plans to begin taking distributions soon after they reach age 70½. Failure to take the required minimum distributions can result in a 50 percent excise tax penalty on the excess of the amount required to have been distributed over the amount that actually was distributed.⁸¹ In addition, a plan that fails to make the required minimum distributions can be disqualified. Admittedly, most elderly Americans retire long before they reach age 70½. Still, raising the minimum distribution age to say, 75 or 80, could help encourage some elderly workers to remain in the workforce.

iv. Repeal the Age Discrimination Exceptions

The Age Discrimination in Employment Act (ADEA) outlawed mandatory retirement. The Act generally prohibits employers from discriminating against workers over the age of 40, and since 1988, employers have been prohibited from ceasing benefit accruals for employees who work beyond age 64 and from excluding participants who are hired within five years of normal retirement age. While ADEA clearly forbids a cessation of benefit accruals or a reduction in the rate of benefit accruals because of age, it does not automatically prohibit benefit reductions that correlate with age. In fact, various exceptions expressly allow retirement plans to limit the total amount of benefits or the total number of years used to compute benefits. We should consider repealing virtually all these exceptions to the age discrimination rules.⁸²

v. Require that Benefits be Paid as Indexed Annuities

Older workers typically underestimate their life expectancies, overestimate their financial ability to meet their future retirement income needs and fail to understand the deleterious effects of inflation. Consequently, they often choose to retire too early, and they often choose to take lump sum distributions or scheduled withdrawals, rather than lifetime annuities. What looks like adequate pension savings at age 55, 62 or even 65 may not be enough to live on at age 80 when work is not a likely option and savings have been depleted. The government could combat this myopic decision-making by requiring retirement plans to pay benefits in the form of annuities, perhaps even indexed-for-inflation annuities.

⁸¹ I.R.C. § 4974.

⁸² For more detail, see Forman, MAKING AMERICA WORK, *above* note 58, at 236–237.

vi. *Require that Pension Benefits be Paid to Part-time Workers*

ERISA currently permits employers to design their plans to exclude at least 30 percent of their full-time workers who are not highly compensated, and, in addition, employers can usually exclude all of their part-time workers.⁸³ The net effect is that relatively few older part-time workers earn pension benefits—benefits that they will need for their eventual retirement. The government could solve this problem by tightening the employee coverage, participation and vesting rules. Specifically, employers should be required to cover virtually all employees who have completed a short period of service, and the number of hours of service required for coverage, participation, vesting and benefit accrual purposes should be reduced from 1,000 hours per year to no more than 250 hours per year.⁸⁴

b. A More Comprehensive Proposal: Mandate Age Neutrality

A more comprehensive approach would be for the government to encourage, or even mandate, age-neutral pension policies. Under an age-neutrality mandate, presumably, benefits would accrue at a constant annual rate, like they do now in the typical defined contribution plan. Indeed, the typical defined contribution plan could easily satisfy an age-neutrality mandate. For example, a simple defined contribution plan might provide that an employee is entitled to a contribution of 10 percent of salary each year and that accumulations earn a market rate of return. Such a plan does not impose financial penalties on those who keep working past some arbitrary retirement age.

On the other hand, most defined benefit plans could not meet an age-neutrality requirement. For example, traditional final-average-pay plans have backloaded benefit-accrual formulas and often cease benefit accruals after 30 years of service.⁸⁵ Indeed, among defined benefit plans, only cash balance plans could easily meet an age-neutrality requirement. Like defined contribution plans, cash balance plans have individual accounts, albeit hypothetical, and like a simple defined contribution plan, a

⁸³ See, e.g., I.R.C. § 410(b) (permitting a plan to benefit just 70 percent of its employees who are not highly compensated); I.R.C. § 410(a)(3)(A) (allowing plans to ignore years in which workers work less than 1,000 hours for purposes of the minimum participation rules); and I.R.C. § 411(a)(5) (allowing plans to ignore years in which workers work less than 1,000 hours for purposes of the minimum vesting rules).

⁸⁴ See, e.g., David Pratt, *Retirement in a Defined Contribution Era: Making the Money Last*, 41(3) JOHN MARSHALL LAW REVIEW 1091 (2008).

⁸⁵ Pertinent here, Ron Gebhardtbauer recently suggested to us that traditional final-average-pay plans and career-average-pay plans would provide more age-neutral benefit accruals to workers who quit before retirement if those plans indexed benefits for inflation between the quit date and the retirement date. Congress should think about encouraging or, perhaps, even mandating such post-termination, inflation-indexing.

cash balance plan that provided wage credits of, say, 10 percent of salary each year and credited account balances with interest at the market rate would be age neutral.⁸⁶

7. Conclusion

As is obvious to almost all observers, the graying of America is exerting pressure on Social Security, Medicare, Medicaid and the many other programs that benefit elderly Americans. It has been observed that “[e]ven if retirement ages were postponed in accordance with improving longevity, the old age dependency ratio would continue to increase, and it will do so quite substantially around the end of the first quarter of the 21st century.”⁸⁷ It follows, therefore, that if we plan to weather the financial tsunami that will accompany the aging of the baby boom generation and beyond, we will need to find ways to encourage the elderly to keep working.

This paper has highlighted the weaknesses of defining old age as years-from-birth and of failing to index early and normal retirement ages for increases in longevity. This paper has also discussed a variety of alternative approaches for tying retirement age to some measure of years-until-death. All in all, we believe that tying the early and normal retirement ages to longevity improvement would be beneficial to workers, to government and to employers. Indexing retirement age for longevity would encourage workers to work longer and accumulate more savings so that they have higher incomes when they eventually retire, it would help the government raise revenues and reduce its expenditures for its social welfare outlays, and it would help employers stave off the labor shortages that could occur if large numbers of talented baby boomers choose retirement over work. Changes are clearly needed, and the sooner the better.

⁸⁶ See also Richard W. Johnson, Gordon Mermin and C. Eugene Steuerle, *Work Impediments at Older Ages* (Washington, D.C.: The Urban Institute, Retirement Project Discussion Paper 06-02, 2006) (noting that making it easier for employers to convert their traditional defined benefit plans to cash balance plans would help eliminate work disincentives from their plans).

⁸⁷ Chen, *above* note 1, at 413.