The Affect of Increasing Retirement Age

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One possible solution for Social Secuirty's Old Age Insurance program (SS-OASI) is to increase the retirement age. Currently the retirement age of birth cohorts were increased as part of the big fix of 1983. Table 1 shows the full retirement age for birth cohorts.

When the retirement age is increased it does two things. First, it increases the number of years a person works and pays SS-OASI taxe prior to receiving full scheduled SS-OASI benefits. Second, the person will draw one less year of SS-OASI benefits. Table 2 lists the increas in cost for the worker who is affected. A one year increase in retirement age will on average cost the worker and additional $3,608 in SS-OASI taxes as well as delay the payment of $15,771 in SS-OASI benefits. The total cost to the worker for this one year increase is $19,379 and is equivalent to an 8% benefit cut. Increasing the retirement age to 70 would cost the average worker $85,258 and is equivelant to a 37% benefit cut.

Now many factors impact this analysis such as US average wage growth, inflation, US Treasury Rate and actual wages. The assumptions used in this analysis are found in Table 3 The gradient formula for different rates of growth was used to determine the present value of benefit[1]. We could inrease inflation, wage growth and the US treasury rate to 4%, 4.5% and 6.5% respectively and the benefit cut at age 70 is still 37%. The reason is the effective rate of return remains pretty much the same. See Table 4 for this analysis.

Does this help Social Security? A one year increase may reduce the cost by 8% across the board since all beneficiaries will be affected by at least one year. As the number of years increase, the magnitude of the change must be larger due to affecting a decreaseing population. According to the Social Security Trustees, the shortfall in 2041 will be about 27% increasing to up to 40% by 2060. To have any affect on the cash flow, the change must be made such that the effective reduction takes place by 2041. This means raising the retirement age to 69 by 2041 and then inreasing the retirement to 73 by 2060. Now at age 73 the effetive benefit reduction from current scheduled benefits is 72%. However, the benefit being paid will be higher, which will offset the gain in additional taxes and reduction in years being paid.

1 Gradient Formula http://www.justsayno.50megs.com/retire.html
Interactive Formula http://www.justsayno.50megs.com/java_retire_1.html

Table 1
Full Retirement Age for Birth Cohorts

Year of birth	Normal Full Retirement Age
1937 and prior	65
1938	65 and 2 months
1939	65 and 4 months
1940	65 and 6 months
1941	65 and 8 months
1942	65 and 10 months
1943-54	66
1955	66 and 2 months
1956	66 and 4 months
1957	66 and 6 months
1958	66 and 8 months
1959	66 and 10 months
1960 and later	67

Table 2
Value of Additional Taxes Paid and Value of Benefits Not Paid

Uses Table 3 Assumptions

Current Retirement age	Average Benefit	Life expectancy at this age	Present Value of this Benefit at this Age Based on Life Expectancy	Value of Additional Taxes Paid if worked through this age	Value of Benefits Not Paid	Total Cost to Worker	Benefit Cut beginning at Age 67
67	$ 15,771	19.44	$ 230,301	$ 3,608	$ 15,771	$ 19,379	8%
68	$ 16,205	18.71	$ 229,818	$ 7,147	$ 32,844	$ 39,991	17%
69	$ 16,651	18.00	$ 229,089	$ 10,620	$ 51,301	$ 61,921	27%
70	$ 17,109	17.29	$ 228,074	$ 14,026	$ 71,232	$ 85,258	37%
71	$ 17,579	16.59	$ 226,768	$ 17,368	$ 92,729	$ 110,097	48%
72	$ 18,063	15.89	$ 225,172	$ 20,647	$ 115,891	$ 136,538	59%
73	$ 18,559	15.21	$ 223,274	$ 23,863	$ 140,825	$ 164,688	72%
74	$ 19,070	14.53	$ 221,059	$ 27,019	$ 167,640	$ 194,659	85%
75	$ 19,594	13.87	$ 218,521	$ 30,115	$ 196,454	$ 226,569	98%
76	$ 20,133	13.21	$ 215,686	$ 33,152	$ 227,392	$ 260,544	113%

Table 3
Assumptions

COLA	2.75%
Wage Growth	3.50%
US Treasury Rate	5.50%
Effective rate used during Retirement	2.68%
Effective rate of return while working	1.93%
US Avgerage Wage 2004	$ 35,649
SS-OASI tax rate	10.6%

Table 4
Value of Additional Taxes Paid and Value of Benefits Not Paid

Life expectancy at this age	Present Value of this Benefit	Value of Additional Taxes Paid if worked till through this age	Value of Benefits Not Paid	Total Cost to Worker	Benefit Cut
19.44	$ 233,311	$ 3,565	$ 15,771	$ 19,337	8%
18.71	$ 235,464	$ 7,063	$ 33,199	$ 40,262	17%
18.00	$ 237,380	$ 10,496	$ 52,415	$ 62,911	27%
17.29	$ 239,011	$ 13,864	$ 73,563	$ 87,427	37%
16.59	$ 240,341	$ 17,169	$ 96,795	$ 113,964	49%
15.89	$ 241,360	$ 20,412	$ 122,275	$ 142,687	61%
15.21	$ 242,045	$ 23,593	$ 150,179	$ 173,772	74%
14.53	$ 242,369	$ 26,716	$ 180,695	$ 207,410	89%
13.87	$ 242,312	$ 29,779	$ 214,024	$ 243,803	104%
13.21	$ 241,892	$ 32,785	$ 250,383	$ 283,168	121%