



SOCIETY OF ACTUARIES

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## Chairperson's Corner

by Bruce Cadenhead

**M**y father often asks me, "When are you actuaries going to fix Social Security?" My first thought is, "That's not my job; there are plenty of other people (actuaries among them) working on that problem." But upon reflection, it's not so easy to shrug off this responsibility. Even if it's not my job, it should certainly be my concern.

When the time comes, I may be lucky enough to be able to afford retirement even without Social Security. Still, the value of my benefit (at least under current law) is pretty significant. Looking beyond my own narrow concerns, to those of family, friends and neighbors, Social Security becomes far more of a concern. Because of its enormous scale, and because so many Americans rely on it to make ends meet, Social Security's financial difficulties are everybody's problem.

When most people think of Social Security, they think of the Old Age and survivor Income Benefits. Medicare, of course, is another important component

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## OASDI Trust Fund: Principal Economic and Demographic Assumptions

*Editor's Note: The following excerpt is taken from Section V. "Assumptions and Methods Underlying Actuarial Estimates," in the 2001 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. Copies of the OASDI 2001 Annual Report are available from Cece Enders (410-965-3015).*

**T**he future income and outgo of the OASDI program will depend on many economic, demographic, and program-specific factors. Trust fund income will depend on how these factors affect the size and composition of the working population and the level and distribution of earnings. Similarly, trust fund outgo will depend on how these factors affect the size and composition of the beneficiary population and the general level of benefits.

Because projections of these facts and their interrelationships are inherently uncertain, estimates are shown in this report on the basis of three plausible sets of assumptions designated as intermediate (alternative II), low cost (alternative I), and high cost (alternative III). The intermediate set, alternative II, represents the Boards' best estimate of the future course of the population and the economy. In terms of the new effect on the status of the OASDI program, the low cost alternative I is the most optimistic, and the high cost alternative III is the most pessimistic.

Although the three sets of economic and demographic assumptions have been developed using the best available information, the resulting estimates should be interpreted with care. The estimates are not intended to be predictions of the future

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## OASDI Trust Fund

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status of the OASDI program, but rather, they are intended to be indicators of the expected trend and likely range of

demographic factors are intended to represent average experience or growth rates. Actual future values will exhibit

The intermediate assumptions (alternative II) reflect the Trustees' consensus expectation of moderate economic growth throughout the projection period. The low cost assumptions (alternative I) represent a more optimistic outlook, with relatively stronger economic growth. The high cost assumptions (alternative III) represent a relatively pessimistic forecast, with weaker economic growth and two recessions in the short-range period. Economic cycles are not included in assumptions beyond the first five to ten years of the projection period because they have little effect on the long-range estimates of financial status.

*"The values for each of the economic and demographic factors are assumed to move from recently experience levels or trends, toward long-range ultimate values over next 5 to 30 years."*

future income and outgo, under a variety of plausible economic and demographic conditions.

The values for each of the economic and demographic factors are assumed to move from recently experienced levels or trends, toward long-range ultimate values over the next 5 to 30 years. The ultimate values assumed after the first 5 to 30 years for both the economic and the

fluctuations or cyclical patterns, as in the past.

### ***Economic Assumptions***

The basic economic assumptions are embodied in three alternatives that are designed to vary Social Security's financial status, and illustrate the likely range of outcomes that might be encountered.

### ***Demographic Assumptions***

The principal demographic assumptions for the three alternatives are shown in Table V.A3 (see page 6).

## ***Congratulations***

The following are newly elected members of the Pension Section Council. They will each serve a 3-year term:

- 1) ***K. Eric Freden, William M. Mercer Incorporated, Atlanta, GA***
- 2) ***C. Ian Genno, Towers Perrin, Toronto, ON***
- 3) ***Sarah W. Wright, The Segal Company, New York, NY***

**TABLE V.B1  
Principle Economic Assumptions**

Calendar Year	Average Annual Percentage (Increase In-)		Real Wage Differential t (Percent)	Calendar Year	Average Annual Percentage (Increase In-)		Real Wage Differential t (Percent)
	Average Annual Wage in Covered Employment	Consumer Price Index *			Average Annual Wage in Covered Employment	Consumer Price Index *	
Historical Data:				Low Cost:			
1960-65	3.2	1.2	2.0	2001	5.1	3.0	2.2
1965-70	5.8	4.2	1.6	2002	4.8	2.6	2.2
1970-75	6.6	6.8	-0.1	2003	4.0	2.4	1.6
1975-1980	8.7	8.9	-0.2	2004	4.0	2.3	1.7
1980-1985	6.7	5.2	1.4	2005	3.9	2.3	1.6
1985-1990	4.7	3.8	0.9	2006	4.0	2.3	1.7
1990-1995	3.4	3.0	0.4	2007	3.8	2.3	1.5
1995-2000	5.4	2.4	3.0	2008	3.7	2.3	1.4
1990	5.1	5.2	-0.1	2009	3.8	2.3	1.5
1991	3.0	4.1	-1.1	2010	3.8	2.3	1.5
1992	4.9	2.9	2.0	2015	3.8	2.3	1.5
1993	1.9	2.8	-0.9	2020	3.8	2.3	1.5
1994	3.4	2.5	1.0	2025	3.8	2.3	1.5
1995	4.0	2.9	1.1	2030	3.8	2.3	1.5
1996	4.5	2.9	1.6	2035	3.8	2.3	1.5
1997	6.0	2.3	3.7	2040	3.8	2.3	1.5
1998	5.7	1.3	4.4	2045	3.8	2.3	1.5
1999	5.7	2.2	3.5	2050	3.8	2.3	1.5
2000	5.5	3.5	2.0	2055	3.8	2.3	1.5
				2060	3.8	2.3	1.5
				2065	3.8	2.3	1.5
				2070	3.8	2.3	1.5
				2075	3.8	2.3	1.5
Intermediate:				High Cost:			
2001	4.9	3.0	1.9	2001	2.9	3.1	-0.3
2002	4.8	2.9	1.9	2002	3.6	3.4	0.2
2003	4.3	3.0	1.3	2003	6.8	5.0	1.7
2004	4.3	3.1	1.2	2004	4.3	6.1	-1.8
2005	4.4	3.2	1.2	2005	5.2	4.4	0.7
2006	4.4	3.3	1.2	2006	5.9	3.8	2.1
2007	4.3	3.3	1.0	2007	5.0	4.1	1.0
2008	4.2	3.3	0.9	2008	4.8	4.3	0.5
2009	4.3	3.3	1.0	2009	4.8	4.3	0.4
2010	4.3	3.3	1.0	2010	4.9	4.3	0.6
2015	4.3	3.3	1.0	2015	4.8	4.3	0.5
2020	4.3	3.3	1.0	2020	4.8	4.3	0.5
2025	4.3	3.3	1.0	2025	4.8	4.3	0.5
2030	4.3	3.3	1.0	2030	4.8	4.3	0.5
2035	4.3	3.3	1.0	2035	4.8	4.3	0.5
2040	4.3	3.3	1.0	2040	4.8	4.3	0.5
2045	4.3	3.3	1.0	2045	4.8	4.3	0.5
2050	4.3	3.3	1.0	2050	4.8	4.3	0.5
2055	4.3	3.3	1.0	2055	4.8	4.3	0.5
2060	4.3	3.3	1.0	2060	4.8	4.3	0.5
2065	4.3	3.3	1.0	2065	4.8	4.3	0.5
2070	4.3	3.3	1.0	2070	4.8	4.3	0.5
2075	4.3	3.3	1.0	2075	4.8	4.3	0.5

\* The Consumer Price Index is the annual average value for the calendar year of the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).  
 † The real-wage differential is the difference between the percentage increases, before rounding, in the average annual wage in covered employment, and the average annual Consumer Price Index.

**OASDI Trust Fund**  
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**TABLE V.A3**  
**Period Life Expectancies**

Calendar Year	Life Expectancy * (At Age 65)		Calendar Year	Life Expectancy * (At Age 65)	
	Male	Female		Male	Female
Historical Data:			Low Cost:		
1940	11.9	13.4	2005	15.8	19.0
1945	12.6	14.4	2010	15.8	18.8
1950	12.8	15.1	2015	15.8	18.7
1955	13.1	15.6	2020	15.9	18.8
1960	12.9	15.9	2025	16.1	18.9
1965	12.9	16.3	2030	16.2	19.0
1970	13.1	17.1	2035	16.3	19.1
1975	13.7	18.0	2040	16.4	19.2
1980	14.0	18.4	2045	16.5	19.3
1985	14.4	18.6	2050	16.6	19.4
1990	15.0	19.0	2055	16.7	19.5
1991	15.1	19.1	2060	16.8	19.6
1992	15.2	19.2	2065	16.9	19.7
1993	15.1	19.0	2070	17.0	19.8
1994	15.3	19.0	2075	17.1	19.9
1995	15.3	19.0	High Cost:		
1996	15.4	19.0	2005	16.3	19.6
1997	15.5	19.1	2010	16.7	19.9
1998	15.6	19.0	2015	17.1	20.3
1999 t	15.7	19.1	2020	17.7	20.8
2000 t	15.7	19.1	2025	18.2	21.3
Intermediate:			2030	18.7	21.8
2005	16.0	19.3	2035	19.3	22.3
2010	16.3	19.3	2040	19.8	22.8
2015	16.5	19.5	2045	20.3	23.3
2020	16.8	19.7	2050	20.7	23.7
2025	17.0	20.0	2055	21.2	24.2
2030	17.3	20.3	2060	21.7	24.6
2035	17.6	20.6	2065	22.1	25.0
2040	17.9	20.8	2070	22.6	25.5
2045	18.2	21.1	2075	23.0	25.9
2050	18.4	21.4			
2055	18.7	21.6			
2060	18.9	21.9			
2065	19.2	22.1			
2070	19.4	22.4			
2075	19.7	22.6			

\* The period life expectancy at a given age for a given year represents the average number of years of life remaining if a group of persons at that age were to experience the mortality for that year over the course of their remaining life.

t Preliminary or estimated.