AMERICAN ACADEMY *of* ACTUARIES

Social Security Reform

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Southeastern Actuarial Club
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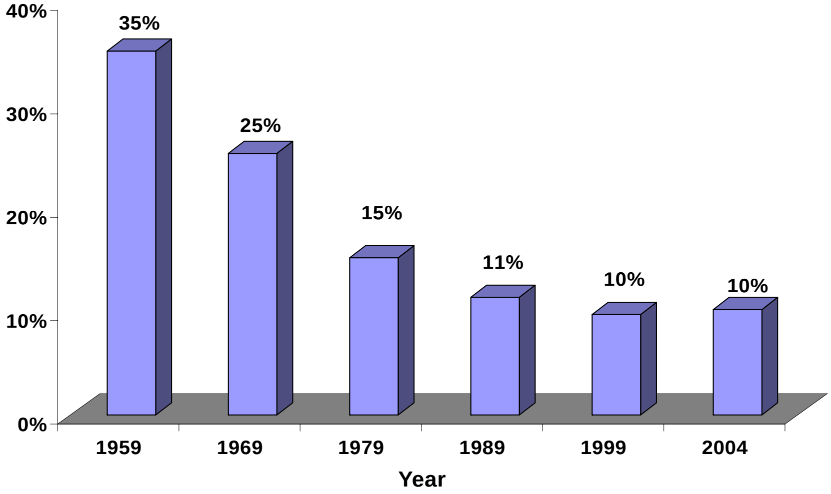
8:45 am - 9:20 am
Westin Charlotte

The American Academy of Actuaries is the public policy organization for actuaries of all specialties within the United States. In addition to setting qualification standards and standards of actuarial practice, a major purpose of the Academy is to act as the public information organization for the profession. The Academy is nonpartisan and assists the public policy process through the presentation of clear analysis. The Academy regularly prepares testimony for Congress, provides information to federal elected officials, regulators and congressional staff, comments on proposed federal regulations, and works closely with state officials on issues related to insurance.

Social Security Topics

- Financial Status
- Can it be saved?
- Should it be?
- Reform Options (with Pros and Cons)
- Individual Accounts (Privatization?)
- Q&A

Poverty Rates For People Age 65 and Older



Social Security (along with SSI & Pensions) decreased the % of elderly below the poverty level to the same % as for people of working age! The poverty threshold (for people over 65) is about $9,000 per person (~ $12,000 for a couple). The thresholds increase with CPI (which is subject to criticism). Poverty rates for single women are much higher. Source: Census Bureau's CPS (Current Population Survey) & ferret.bls.census.gov

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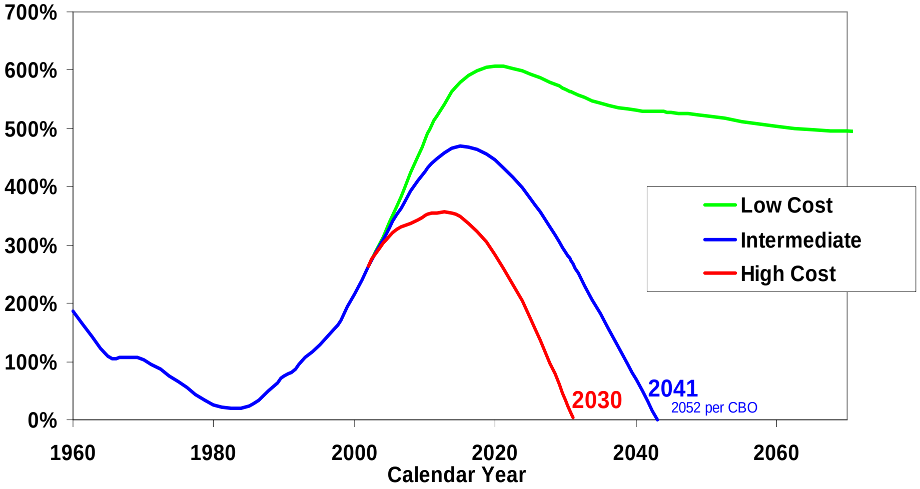
Social Security Trust Fund Ratios

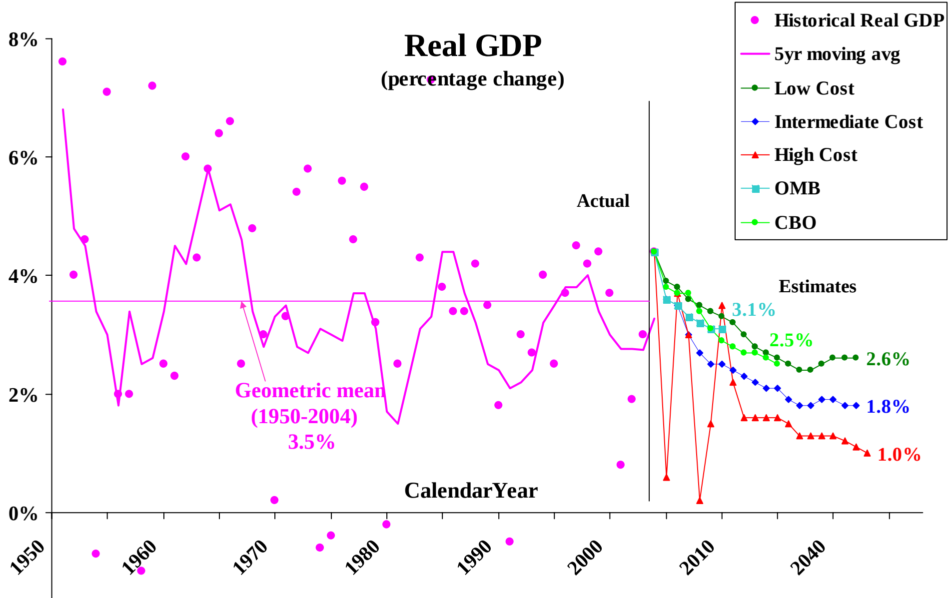
(Beginning of Year Assets as a % of Expenditures)



The Social Security Trust Funds are projected to be exhausted in 2041 using the Intermediate Assumptions. The assumptions are reasonable in the aggregate per GAO/PWC report & individually reasonable per SS Chief Actuary. 2005 SSA Trustees' Report: Table IV.B3. Historical Trust Fund Ratios are from VI.A4. Even on the low cost assumptions, Social Security does not meet their Sustainability Test (trust fund ratios stable or increasing around 75th year).

Assumptions

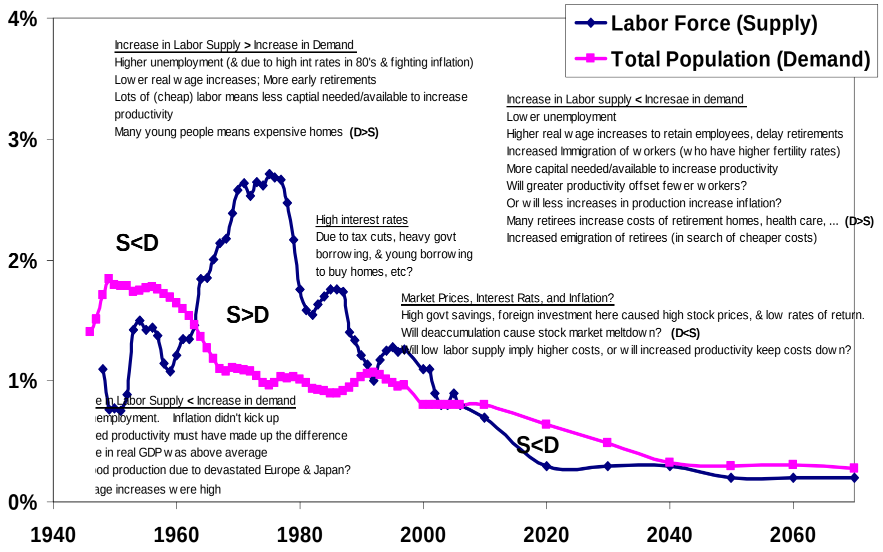
- Demographic
  - Fertility
  - Mortality
  - Immigration
- Economic
  - Interest Rates on Treasury Bonds
  - Productivity
  - Wage Increases
  - Price Inflation
  - Labor Force Participation and Unemployment Rates
- Disagreements
  - Productivity & Mortality Improvement



Sources: OASDI Trustees' Report 2005, Table V.B2 (2004 ultimate = 1.8%)
FY 2006 Government Budget (Table 12-2) from OMB
January 2005 CBO Budget and Economic Outlook (Table E-1)
Trustees Reports suggest a decline in GDP growth, due to less growth in labor force.
OR will we retire later, increase immigration, &/or increase productivity more?

Average Increases in Labor Force & Population

or We should study relationships between demographic & economic assumptions



Increase in Labor Supply > Increase in Demand
Higher unemployment (& due to high int rates in 80's & fighting inflation)
Lower real wage increases; More early retirements
Lots of (cheap) labor means less captial needed/available to increase productivity
Many young people means expensive homes **(D>S)**

Increase in Labor supply < Incresae in demand
Lower unemployment
Higher real wage increases to retain employees, delay retirements
Increased Immigration of workers (who have higher fertility rates)
More capital needed/available to increase productivity
Will greater productivity offset fewer workers?
Or will less increases in production increase inflation?
Many retirees increase costs of retirement homes, health care, ... **(D>S)**
Increased emigration of retirees (in search of cheaper costs)

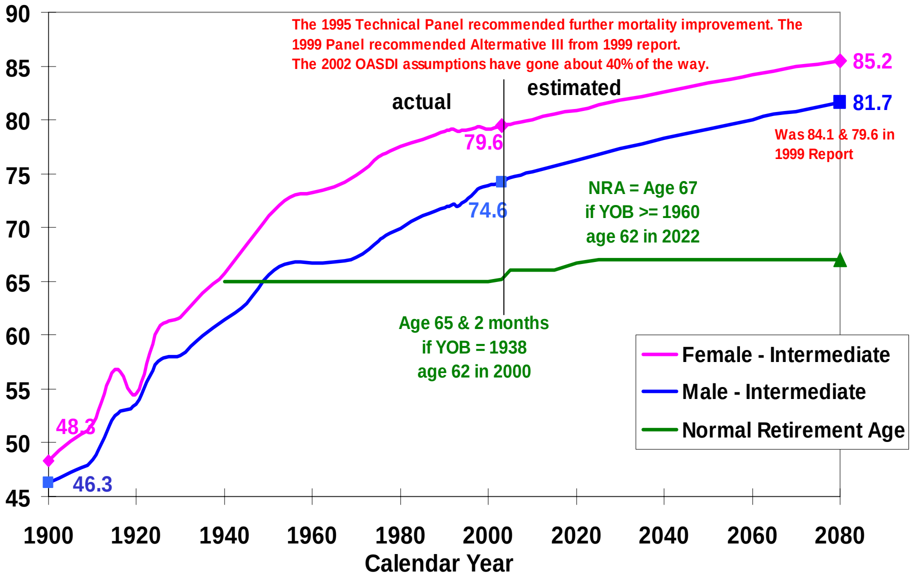
High interest rates
Due to tax cuts, heavy govt borrowing, & young borrowing to buy homes, etc?

Market Prices, Interest Rats, and Inflation?
High govt savings, foreign investment here caused high stock prices, & low rates of return.
Will deaccumulation cause stock market meltdown? **(D<S)**
Will low labor supply imply higher costs, or will increased productivity keep costs down?

e in Labor Supply < Increase in demand
employment. Inflation didn't kick up
ed productivity must have made up the difference
e in real GDP was above average
od production due to devastated Europe & Japan?
age increases were high

Sources: 2003 SSA Trustees' Report, Tables V.A2 & V.B2, Statistical Abstract of US
Due to smaller increases in labor force, employers may encourage employees to retire later.

Period Life Expectancies at Birth



The 1995 Technical Panel recommended further mortality improvement. The 1999 Panel recommended Alternative III from 1999 report.
The 2002 OASDI assumptions have gone about 40% of the way.

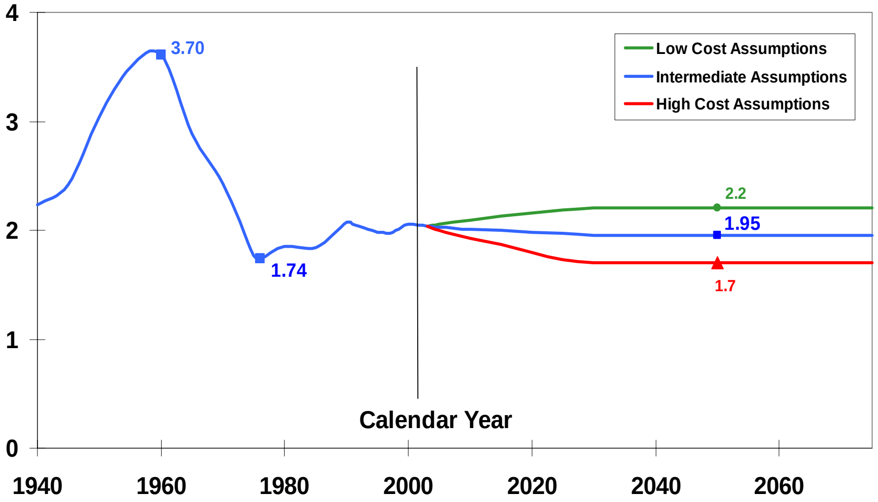
Was 84.1 & 79.6 in 1999 Report

NRA = Age 67
if YOB >= 1960
age 62 in 2022

Age 65 & 2 months
if YOB = 1938
age 62 in 2000

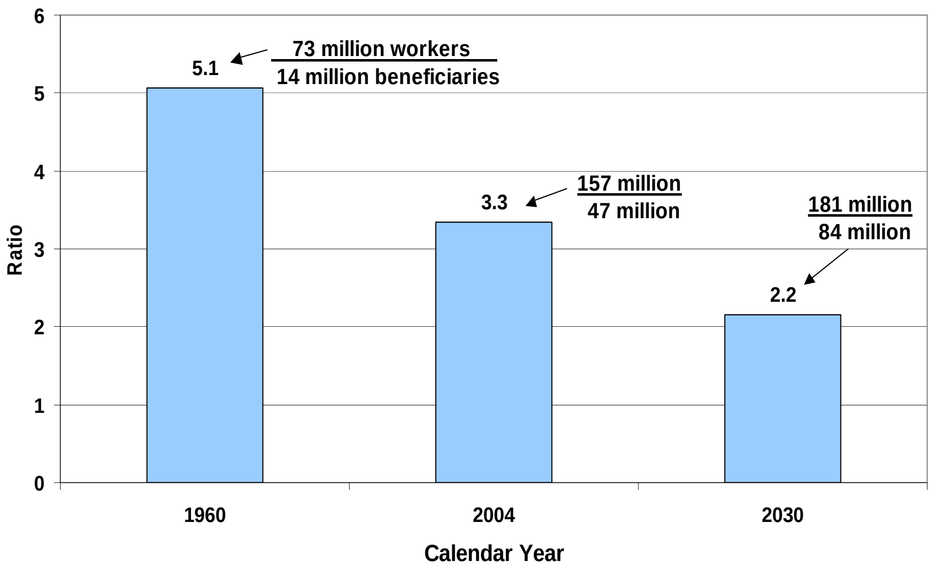
These are period life expectancies, calculated as if the person experienced death rates from the specified year (ie, no mortality improvement after the year indicated). Cohort life expectancies in 2080 are 85.8 & 89.0 respectively.
Sources: 2005 SSA Trustees' Report, Table V.A3 and Historical Statistics of the US (pg. 55) from Census Bureau

Fertility Rate



Fertility Rate = avg # of kids born to a woman using data from specified year only
The 1999 Technical Panel suggested 1.9 and 1995 Panel suggested 1.95 (which offset effects of their mortality improvement suggestion).
Rates for Canada, Europe, OECD countries, are 1.8, 1.6, and 1.8 respectively (World Population Profile - 2001).
Rates for Hispanic- and African-Americans are 3.0 and 2.2 respectively (Census Bureau - 2001).
The Trustees assume immigration of 600,000 per year & 300,000 other than legal. Increasing this by 400,000 reduces deficit by .25% of payroll
Source: 2005 SSA Trustees' Report, Table V.A1 and VI.D3.

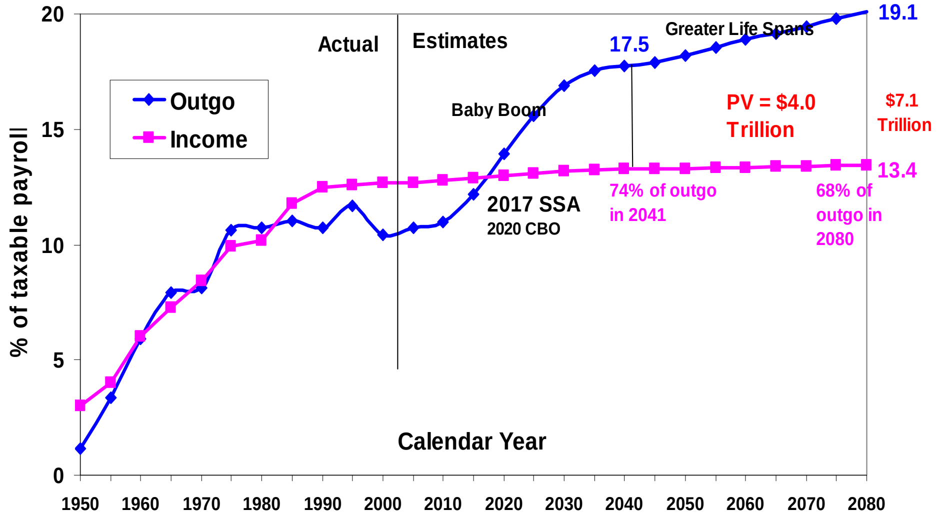
Workers per Beneficiary



The number of workers supporting beneficiaries decreases dramatically due to baby boomers & longer lifespans. Source: 2005 SSA Trustees' Report, Table IV.B2

Social Security Income & Outgo

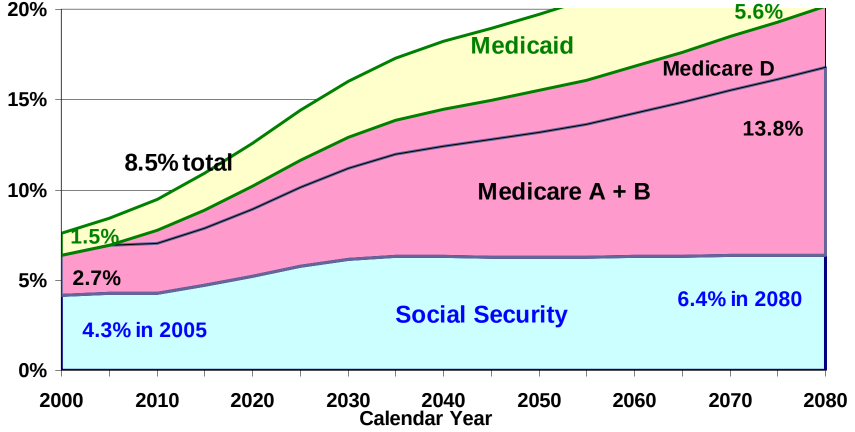
Intermediate Assumptions



2005 Trustees Report Table IV.B1. Using low (high) cost assumptions, the 2080 outgo is 14% (27%), and the 2017 date is 2022 (2013). It's 2027, if interest is included, per Summary. The 75-yr actuarial balance = -1.92% (1.0% per CBO), -4.96, & 0.38% of taxable payroll for the intermediate, high, & low cost assumptions, per Table IV.B4, and -3.5% (1.2% of future GDP) without the 75-yr limit per p. 59 (although we could increase SSNRA some century). Table IV.B6&7, UTL = $12.0 T, so future workers pay for themselves & $0.9 T of UTL

Total Costs of Social Security, Medicare, & Medicaid

(as a percent of GDP)



Sources: 2005 OASDHI Table VI.F4; SMI from Medicare report Tables III.C14 & 20; and Medicaid from CBO's 10/2000 and 6/14/2002 reports. Today, these programs are half of non-interest government expenses. Their total costs more than triple to 26% (Medicare quintuples, surpassing SS by 2024). If estimates are accurate, they will exceed 20% of the economy, thus absorbing all federal taxes, unless taxes increase or government programs shrink.

Reasons to Reform Social Security Sooner Rather Than Later

- More options available to us
- More people included in reform
- Benefit cuts for future cohorts can be less, if desired
- We can phase reforms in
- We can plan ahead for the changes
- We can restore faith in SS and government

Delaying decision could force the solution to rely more on raising taxes

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Options

	% Fix
• Decrease Benefits	
– Raise retirement age (to 67 faster & index by 1 month/2 years)	36%
– Reduce COLA by ½%	42%
– Cut initial benefits by 1% each year (price indexing)	100%
– Affluence Test (Concord Coalition)	75%
– Increase # of yrs in wage avg. to 40	21%
• Increase Taxes	
– Increase tax rate by 1% total (0.5% on each)	51%
– Increase wages subject to tax by 1/4	26%
– Tax SS benefits like pensions	20%
– Include rest of state & local govt.	11%
• Increase Investment Returns	
– Trust Funds	0%-50%
– Individual Accounts (Archer-Shaw would reduce SS deficit)	0%

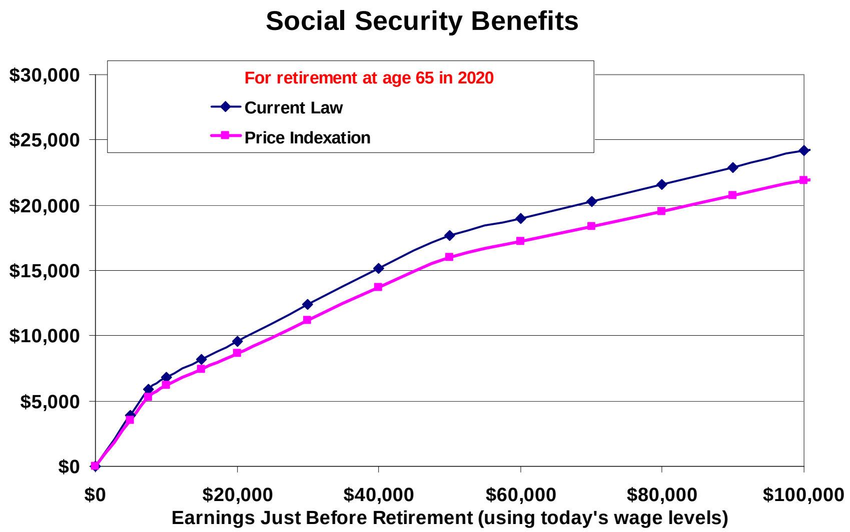
* Funding sources: Additional Contributions, SS, General Revenue

Benefit Reductions

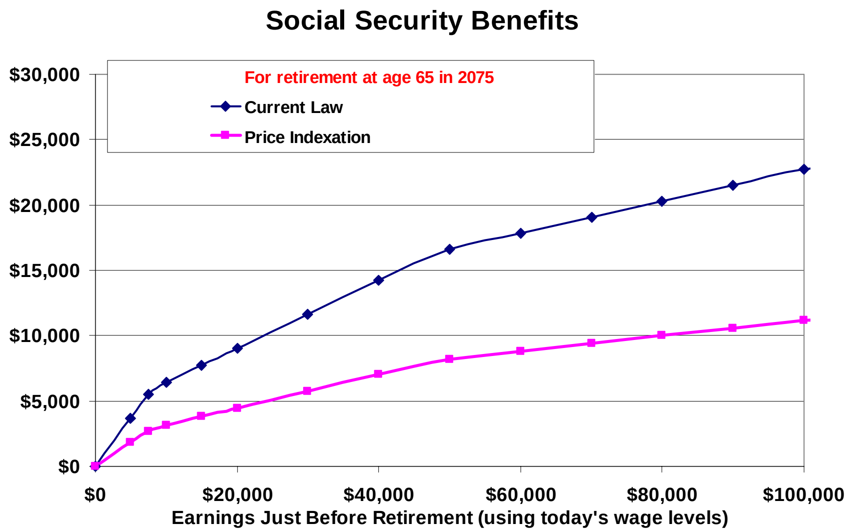
- One across-the-board benefit cut
  - For all newly *eligible* beneficiaries
  - Benefit cuts affect disability benefits too
    - Because they have same benefit formula
  - 5% cut eliminates 32% of shortfall, but causes notch babies
- Price Indexation of initial benefit
  - Currently, SS maintains replacement rates
    - Initial benefits increase each year by growth in average wages
  - Proposal would reduce replacement rates by ~ 1% *each year*
  - Cuts replacement rates (& benefits) in half every 62 years
  - Benefits eventually become inconsequential, unless turn off
  - Eliminates shortfall (even if disability benefit exempt)
    - If don't turn off price indexation, could reduce payroll tax in 75 years
    - This is how UK reduced the financial problems of their system, but …

Benefit Calculation

- Current formula calculates initial benefit at NRD as:
  - 90% of AIME up to first bend point ($627), plus
  - 32% of AIME between 1st and 2nd bend points ($627 and $3,779), plus
  - 15% of AIME over 2nd bend point ($3,779)
- Bend points increase each year by avg. growth in national wages
- Thus, if wages increase 4% each year, the initial benefit will too
  - But SS benefits in pay status increase by price inflation ~ 3%
- AIME = Average Indexed Monthly Earnings
  - Index wages up to age 60
    - Using average growth in national earnings
  - Average of highest 35 years (not high 5 or high 3)
- Price Indexation of initial benefit
  - Increases initial benefit by inflation, not wages
  - Reduce the 90/32/15 replacement rates by about 1% each year



Price indexing cuts everyone's benefits in half every 64 years (assuming real wage growth of 1.1% per year), so the President's SS Commission enhanced benefits below 2 x minimum wage. Progressive price indexation is more gradual, but workers at maximum still get cut in half every 64 years. In fact, benefits become flat (changing the nature of SS), and around 2089, benefits decrease as earnings increase (if wages > $20,000/ year).



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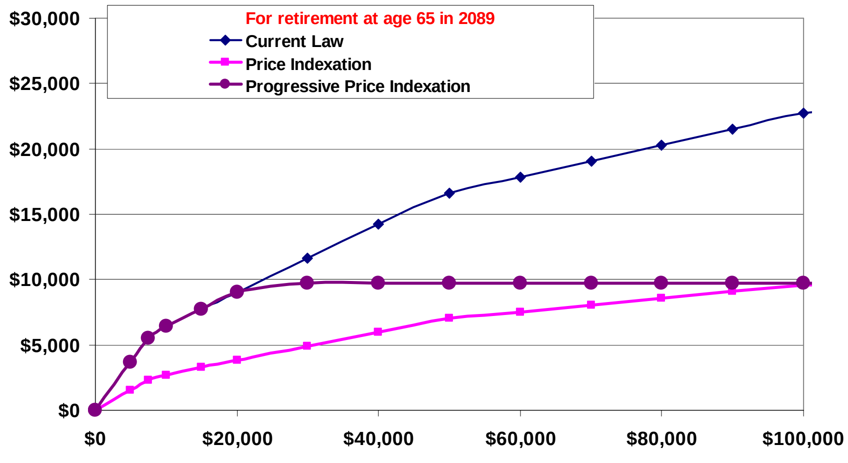
Social Security Benefits



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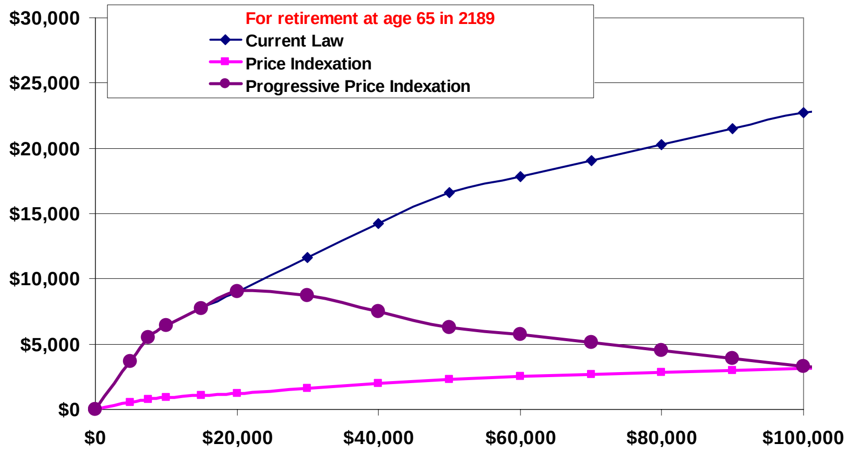

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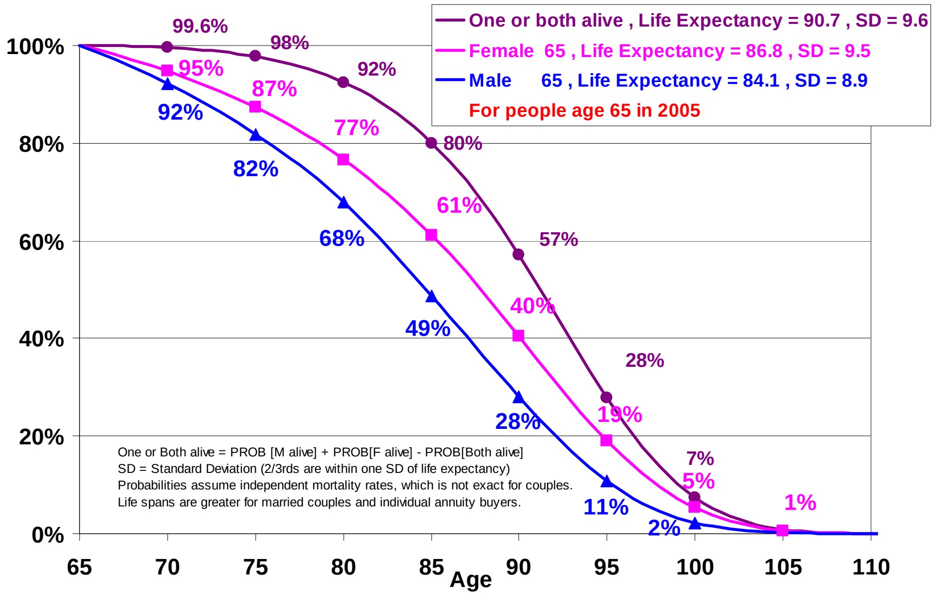
Benefit Reductions

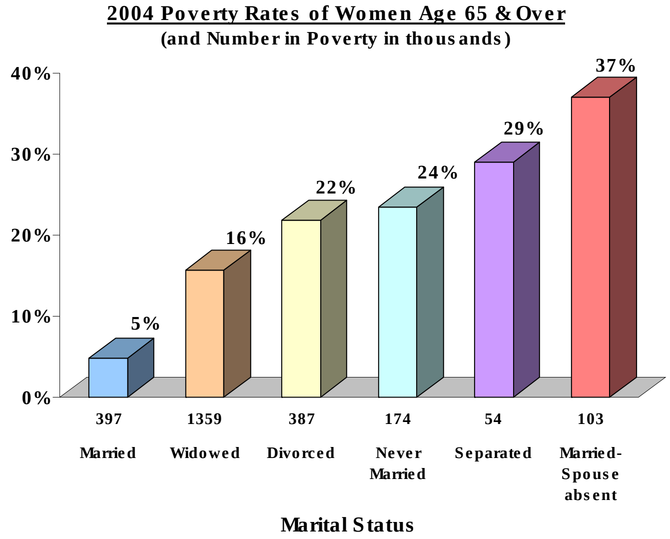
- Progressive Price indexation
  - Price indexation for workers at $90,000 max
  - No change (ie, wage indexation) for workers in bottom 30%
  - Eventually benefit decreases as income increases
    - Means Test?
  - Eliminates 63% of shortfall (if disability benefit exempt)
- Reduce cost-of-living increases
  - Boskin Commission said was overstated by about 1.1%
    - BLS has mostly fixed it
    - Revised CPI calculation can affect pension COLAs & tax brackets
    - Experimental CPI for elderly showed their CPI 0.3% higher
  - Reduce by 1/2 % each year – eliminates 41% of shortfall
    - Cumulative: retired 30 years - about 15% of purchasing power lost
    - Particularly a concern for elderly single women

Probability of Living From Age 65 to Specified Age



One or Both alive = PROB [M alive] + PROB[F alive] - PROB[Both alive]
SD = Standard Deviation (2/3rds are within one SD of life expectancy)
Probabilities assume independent mortality rates, which is not exact for couples.
Life spans are greater for married couples and individual annuity buyers.

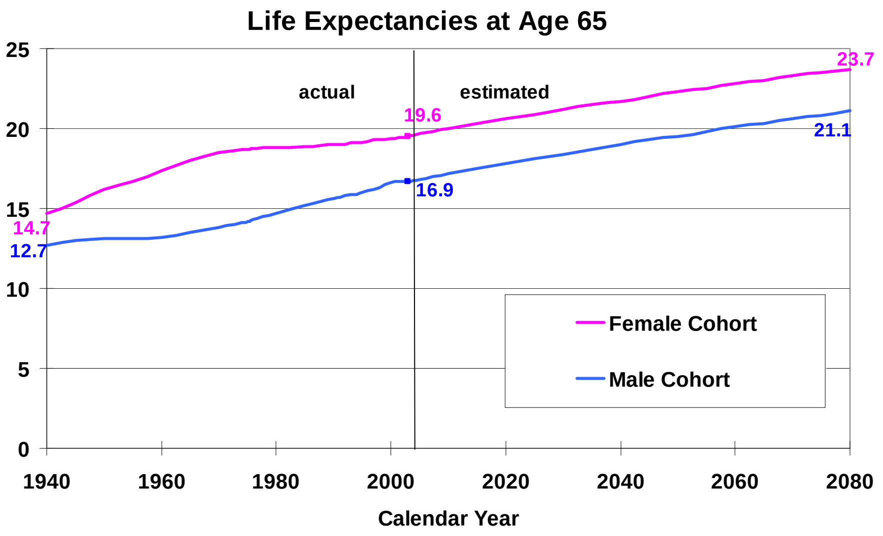
UP 94 - a pension mortality table with full projection from the Society of Actuaries
Ron Gebhardtsbauer, Amercian Academy of Actuaries



Reflecting home ownership reduces elderly poverty rates by 5% (10% for elderly widows). Reflecting MOOP (medical out-of-pocket) expenses increases them. Recomendation to reduce single's threshold from 79% to 71% of couple's threshold (Betson & Int'l or 62% per NAS) lowers single rates towards married rates. Experimental measures increased poverty rates of married couples by 4%, but changed widows little (BLS: Johnson 2/2000). Source: Current Population Survey March 2004 Supplement (using ferret from www.census.gov)

Raise Retirement Ages

- Raise the Normal Retirement Age (NRA)
    - NRA = full-benefits retirement age = 66 now, 67 eventually
        - Anyone complaining?
    - Fast: Raise NRA by 2 months every year
        - About 1% reduction per year
        - Similar to Price Indexation, except doesn’t touch disability benefit
        - Substantially eliminates shortfall
    - Moderate: speed up increase to age 67 and index thereafter
        - Increase NRA by 2 months for next 6 years to reach age 67
        - Indexation: Increases NRA by 1 month every 2 years, thereafter
        - Eliminates 36% of shortfall
    - Slower: just index retirement age (delayed onset)
        - Eliminates about 1/4th of shortfall
    - Do we want to work longer?
    - Can we work to these older ages?
        - There will be more disabled retirees (if raise NRA)
    - Will employers retain and hire older workers (more expensive)?
    - Labor: NRA should reflect earlier work years of blue collar workers



Life Expectancies at Age 65

Source: 2005 SSA Trustees' Report, Table V.A4 (intermediate assumptions)

Increase Revenue

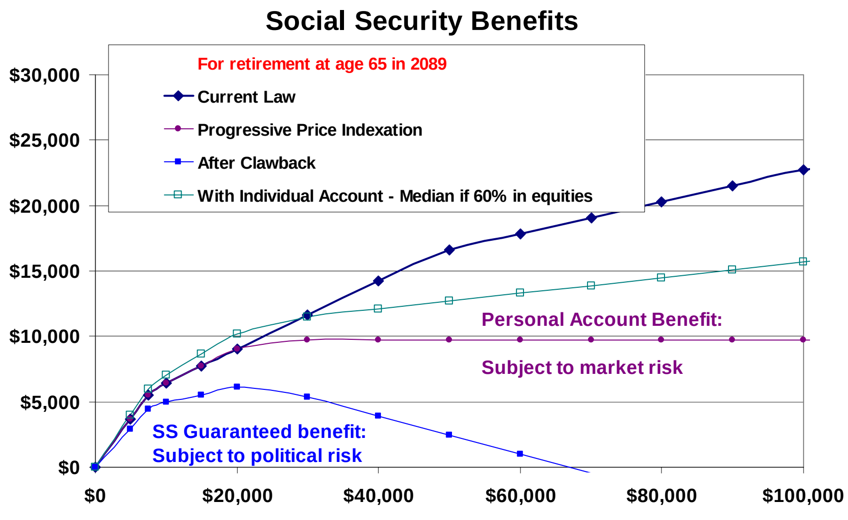
- Raise Social Security tax rate (currently at 6.2% each)
  - By 1% on both worker & employer - eliminates 75-year shortfall
  - By ½% on both – eliminates about half of shortfall
  - Raise gradually as needed: 7.25% in 2020-2049 and 8.3% thereafter
    - Eliminates shortfall
- Lift the $90,000 cap on taxable wages
  - Credit for Benefit purposes - eliminates 93% of shortfall
  - Retain cap for benefit purposes - eliminates 116% of shortfall
  - Just use 3% rate on wages above $90,000 – eliminates 1/4th above
- Subject 90% of national earnings to payroll taxes
  - Raising cap to $140,000 – eliminates 40% of shortfall
  - Raising cap to $112,000 – eliminates about 26% of shortfall
- Earmark other taxes for Social Security
  - Capital gains/dividend tax cut > 3 times amt needed to eliminate shortfall
  - Earmark remaining Estate Tax to SS – eliminates 27% of shortfall

Invest in Equities

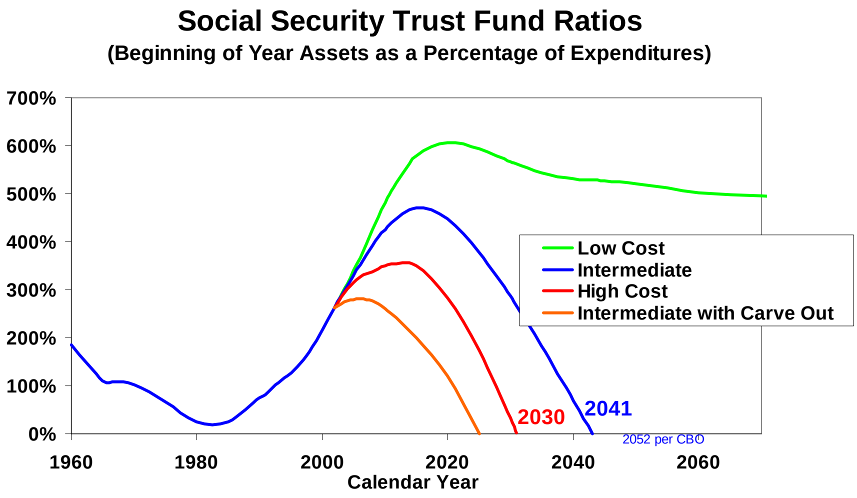
- Trust Funds
  - Better return
  - Eliminates zero to half of shortfall, depending on returns
  - Is political influence in markets a concern?
- Individual Accounts (IA)
  - Add On: IA on top of SS
    - Seen as tax increase?
    - Doesn't help SS
  - Carve Outs: some tax diverted from Trust Funds to IA
    - All of payroll taxes are now used for benefits or borrowed
    - Carve outs would increase cash deficits of SS & US, unless raise taxes
    - Good returns don't help SS deficit (unless returned to SS : Rep Shaw)
    - Worker does better if retires when stocks high
    - Worse if retires when stocks low, or not a good investor

Reasons for Individual Accounts

- Individual Accounts can get higher returns
  - Unless Trust Funds invested in equities
- Otherwise, Congress spends the surplus
- Pre-funds system
  - Government would still borrow
- Avoids government influencing markets
  - Unless government designates acceptable funds
- Provides Choice to individuals
  - A value in a democratic society
  - What about those who don't want choice or can't handle it?
- Individuals become more concerned that economy does well
  - But get hurt if it doesn't do well
- May not happen
  - Republicans can't agree on what to do
  - Uncomfortable with increasing budget deficit with carve out
  - US workers better understand risk now



While the proposed benefit is less than the current benefit level, if workers elect to have a Personal Account and invest well, they could recoup some of the benefit cut. The median investor in 60% stocks might break even with what SS can afford now, using its current payroll tax. They might also do worse too, and they would experience that risk right up until retirement. They can reduce the risk by moving to bonds, but it also reduces the return.



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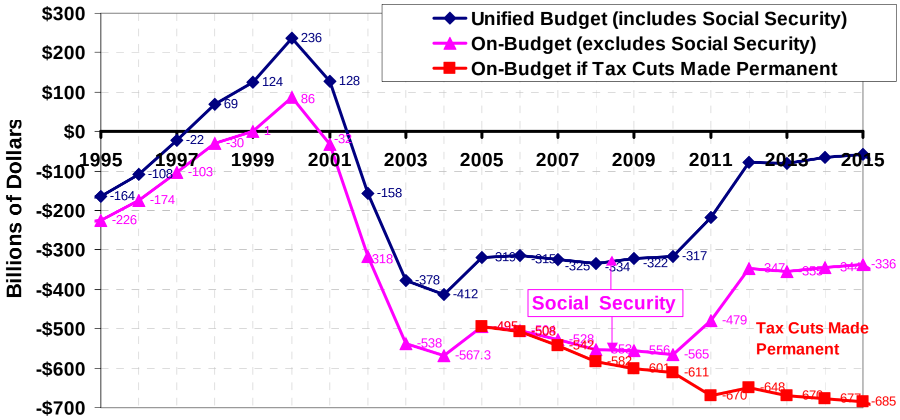
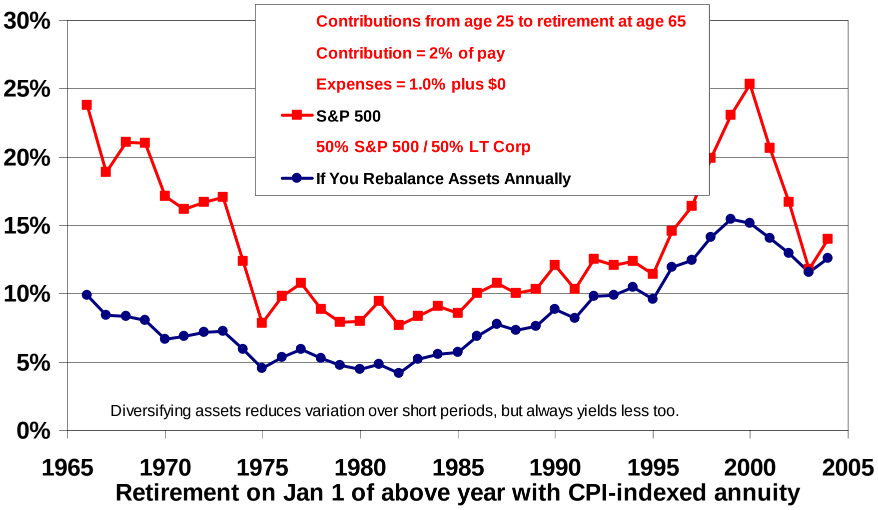
Federal Budget Surplus
(with and without Social Security)



Source: 8/2005 CBO Update of Budget. Large deficits return again in early 2020's per CBO 6/2002 long range fiscal policy brief. SS surpluses will not eliminate deficits if tax cuts made permanent, entitlements increase by same % as GDP, tax credits extended, AMT fixed, Iraq increases outlays, SS Individual Accounts enacted, etc.

Note: Off-budget agencies also include the USPS, but their annual surplus is < $4 billion.

Replacement Rates from Qualified Savings
(using Historical Yields from Ibbotsen)



Diversifying assets reduces variation over short periods, but always yields less too.

Choice – Pros & Cons

- Choice politically easier, but has concerns
  - Lower income people less likely to participate
  - People will worry about making right choice
  - Will government be a fiduciary in that choice?
  - Will people sue if they do worse/didn't understand?
    - Will govt. be pushed into guaranteeing you won't do worse if you participate in Individual Account?
    - Creates moral hazard
  - If benefit formula changes, some will want new choice (retroactive?) and/or both formulas have to change
  - Some feel they don't have time/knowledge to choose

Indexation & Sustainability

- Price Indexation can make SS solvent and sustainable (under intermediate assumptions)
  - But increases volatility
  - Optimistic and Pessimistic projections wider apart
- Wage Indexation reduces volatility
- Longevity Indexation reduces volatility
- Helps keep system solvent longer, even if real wages are not as good, and we live longer
- How index for fertility decrease?
  - Increased immigration?

Any Predictions?

- Individual Accounts?
  - Just from SS surplus (GROW accounts) Growing Real Ownership for Workers
  - Increases unified deficit & borrowing (unless increase taxes)
  - Helps individual, not Social Security
  - Workers understand risks more now
- Cut Benefits?
  - Maybe just curtail the increases, as in Progressive Indexation
- Increase the $94,200 maximum taxable earnings?
- Longevity Indexation?
  - Maybe if slow and deferred, but not 100% fix

Recent Quotes

"There seems to be a diminished appetite in the short term, but I'm going to remind people that there is a long-term issue that we must solve" [President Bush, 10-4-05]

"On Social Security ... we should move forward if we're convinced ... that our action is going to be met by Senate action or that unilateral action somehow advances this discussion rather than holds this discussion back." [temporary House Majority Leader Roy Blunt]