



# PROJECTION ACCURACY

Oct 1, 2010  
2011 Technical Panel  
Washington, DC

Alice Wade  
Office of the Chief Actuary, Social Security Administration

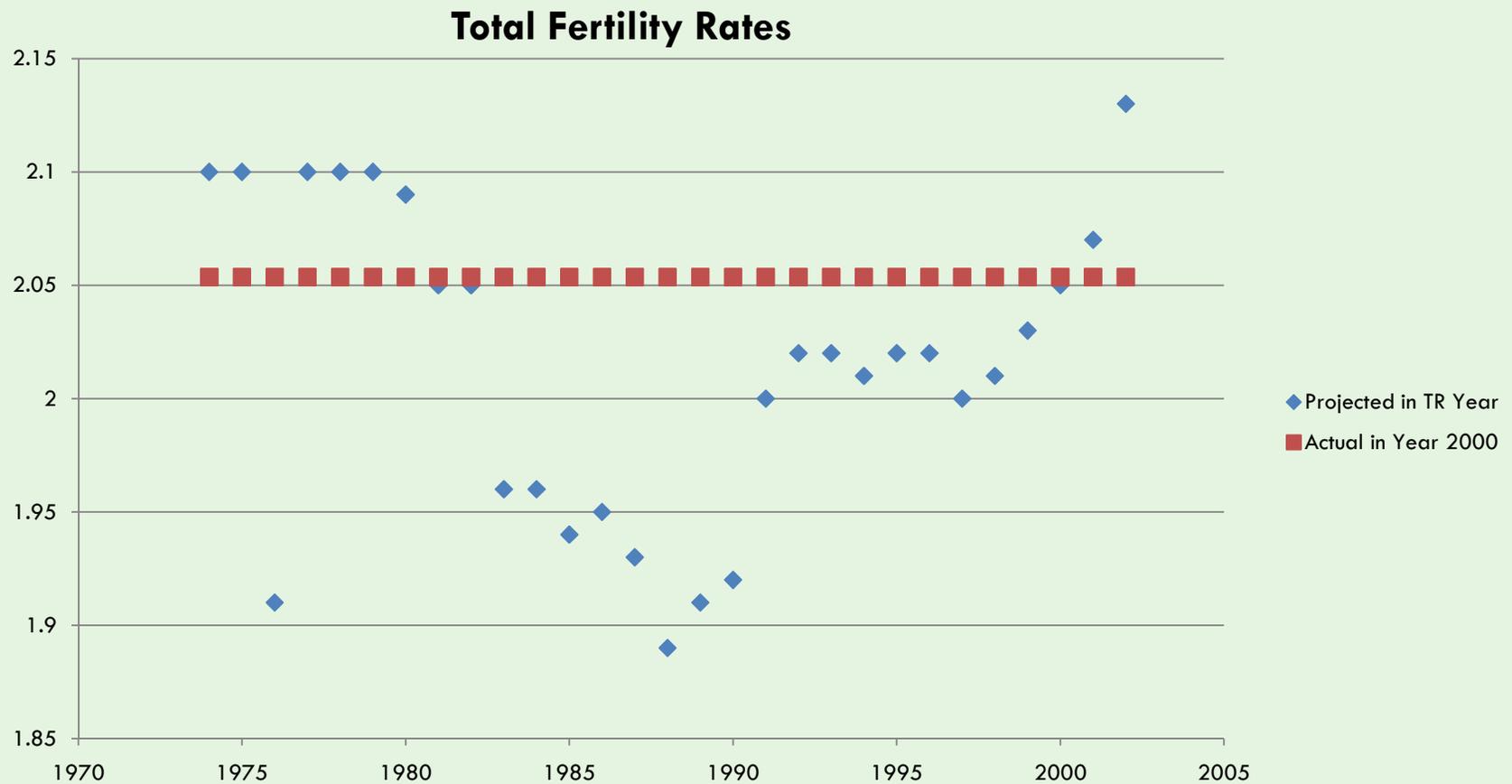
# Projection Accuracy



2

- Total Fertility Rate
- Life Expectancy at age 0
- Life Expectancy at age 65
- Cost Rate
- American Enterprise Institute (AEI) presentation in Sept. 2007

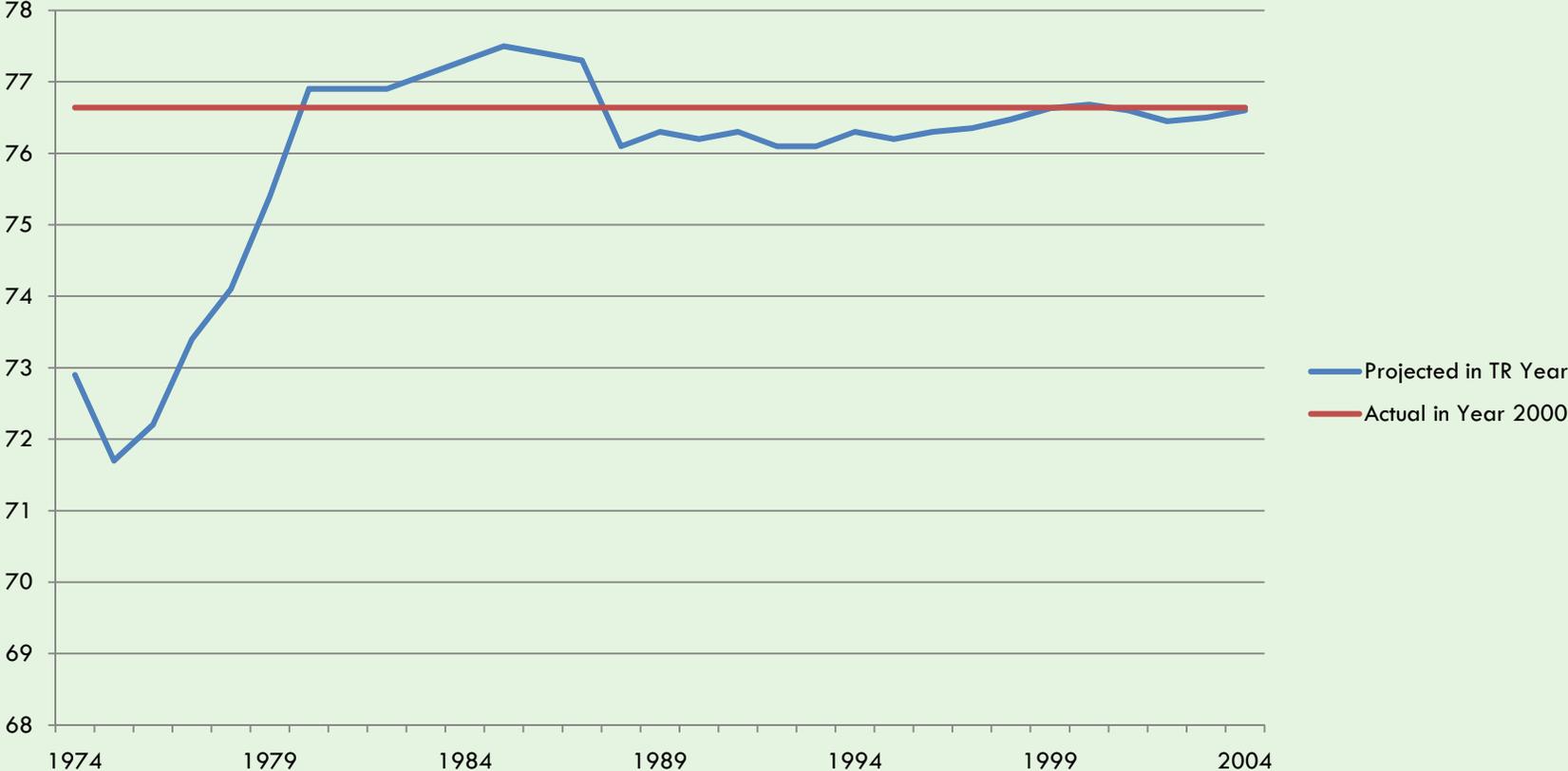
# Total Fertility Rate for 2000: intermediate assumptions



# Life Expectancy at age 0 in 2000: intermediate assumptions



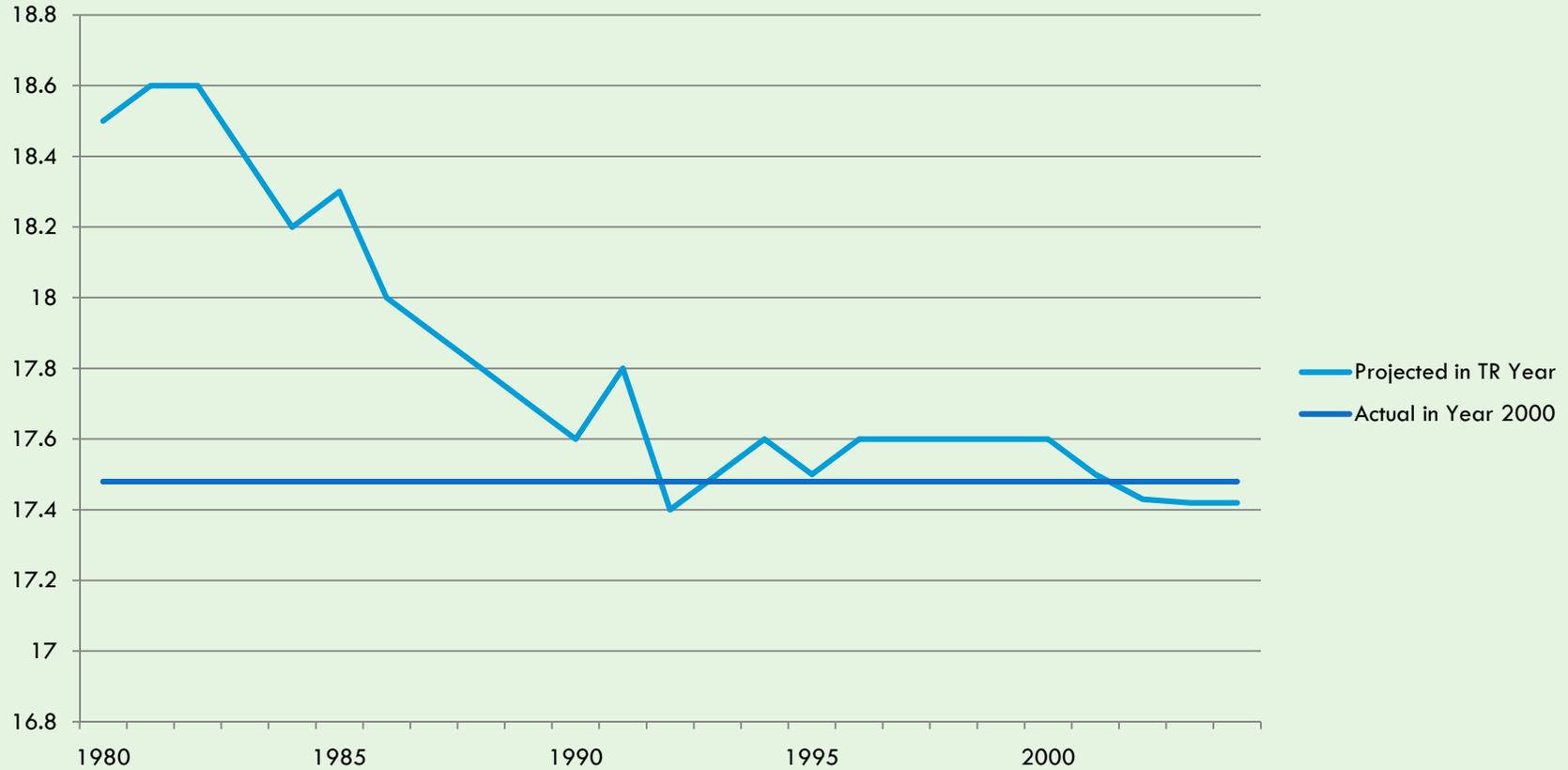
Period Life Expectancy at Age 0



# Life Expectancy at age 65 in 2000: intermediate assumptions



### Period Life Expectancy at Age 65



# Projections Driven by Assumptions



6

- Mortality, fertility, and even immigration do not contribute much in the first 10-20 years.
- In the relative near term, projections are driven by economic assumptions.

# Cost rate in the 10<sup>th</sup> projection year: intermediate assumptions

10th Year Projection of Cost Rate --- Actual vs. Projected								
Year of								
Trustees	Year	Projected			Projected		Projected	
<u>Report</u>	<u>Projected</u>	<u>Actual</u>	<u>Low Cost</u>	<u>Actual</u>	<u>Intermediate</u>	<u>Actual</u>	<u>High Cost</u>	<u>Actual</u>
1999	2009		10.62		11.72		12.96	<b>13.00</b>
1998	2008		10.76	<b>11.55</b>	11.86		13.22	
1997	2007		10.80	<b>11.34</b>	12.10		13.59	
1996	2006		10.57	<b>11.06</b>	12.07		13.74	
1995	2005		10.44	<b>11.16</b>	11.92		13.63	
1994	2004		10.35	<b>11.05</b>	11.89		13.75	
1993	2003		10.12	<b>11.03</b>	11.62		13.39	
1992	2002		9.81	<b>10.90</b>	11.21		12.73	
1991	2001		9.63	<b>10.56</b>	10.89		12.38	
1990	2000		9.16	<b>10.40</b>	10.56		12.23	
1989	1999		9.25	<b>10.51</b>	10.31		11.82	
1988	1998		9.38		10.39	<b>10.87</b>	11.65	
1987	1997		9.62		10.76	<b>11.27</b>	12.03	
1986	1996		9.78		10.78	<b>11.53</b>	11.88	
1985	1995		9.71		10.86	<b>11.67</b>	11.94	
1984	1994		9.58		10.85	<b>11.62</b>	11.86	
1983	1993		9.25		10.93	<b>11.73</b>	11.79	

# Near Term Economic Assumptions



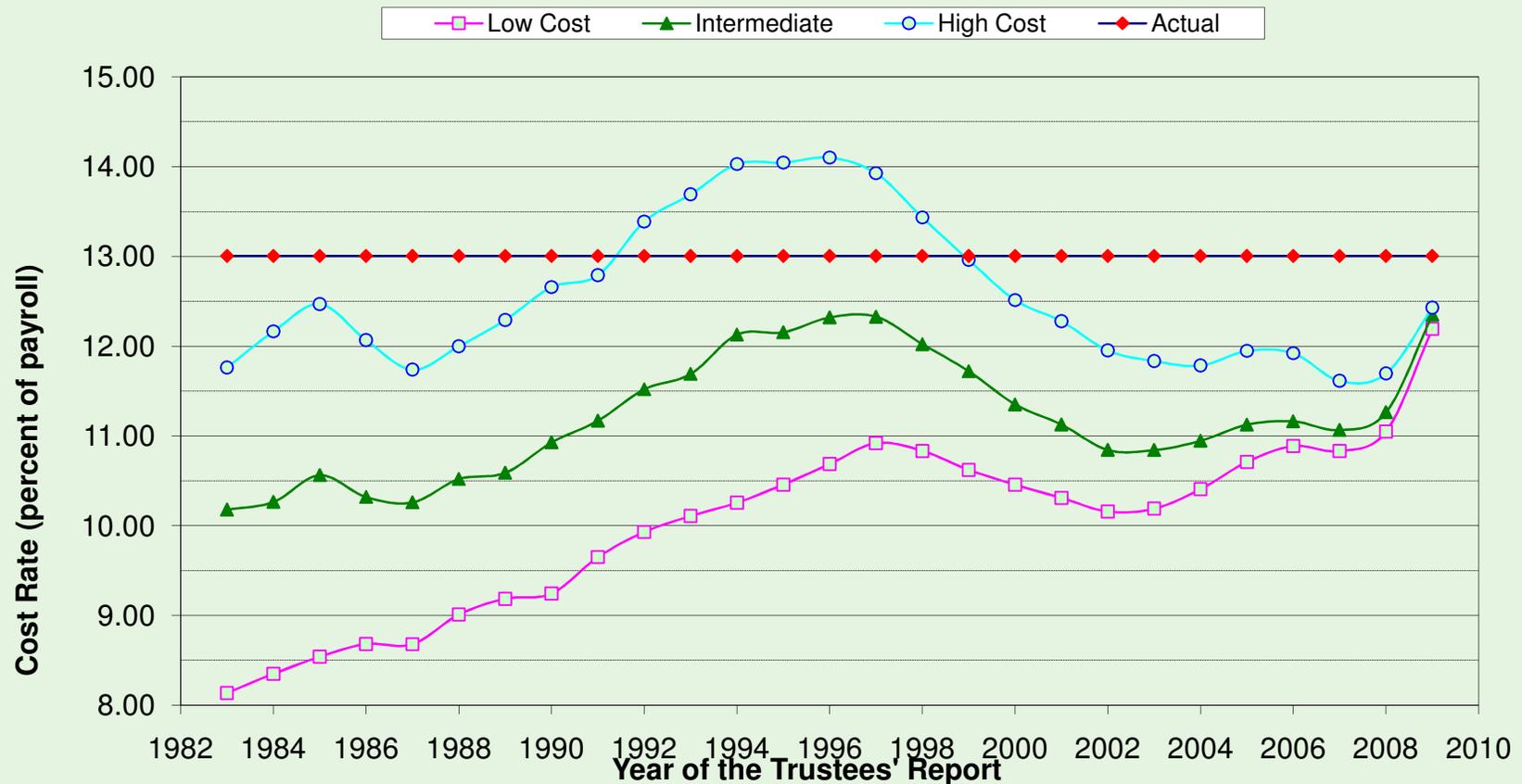
8

- Slow growth in employment and real earnings reduces payroll and taxes immediately, lowering benefits only with a delay.
- A poor economy is correlated to induced disability filing and earlier retirement.
- Thus, slowed economic growth hurts net cash flow for Social Security in the near term.

# Cost rate for the year 2009: projected verses actual



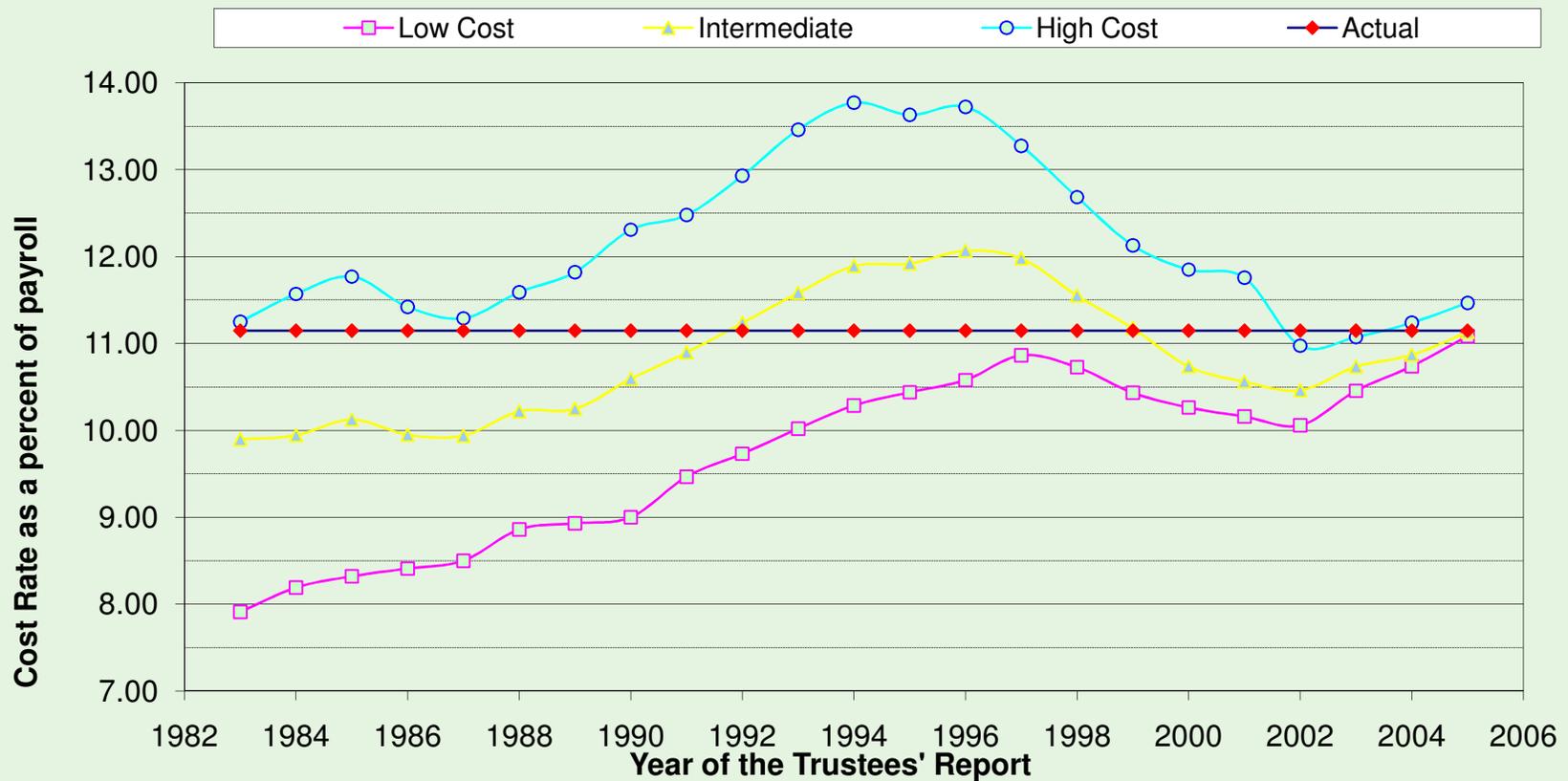
9



# Cost rate for the year 2005: projected verses actual



10



# Cost rate for the year 2001: projected verses actual



11

### 2001 Cost Rate --- Actual vs. Projected





# Who predicted the recession for 2009?

12

None of the major government or private forecasters.

For example, let's look at the projections made *in Dec. 2002* for **civilian unemployment rate for 2009:**

- Trustees (intermediate assumption): 5.5%
- Global Insight: 4.7%
- Economy.com: 5.0%
- FY 2004 Budget: 5.1%
- CBO: 5.2%

# Who predicted the recession for 2009?



13

And, none of the major government or private forecasters were close in the Fall of 2007.

For example, let's look at the projections made *in Fall 2007* for **civilian unemployment rate for 2009:**

- Trustees (intermediate assumption): 4.9%
- Global Insight: 5.1%
- Economy.com: 5.0%
- FY 2009 Budget: 4.9%
  - CBO: 5.4%
- Macro Advisers 5.1%

# American Enterprise Institute (AEI)



14

- Presentation by Chuck Blahous in Sept. 2007 entitled: ***Are the Social Security Trustees Reports Too Pessimistic?***
- Chuck examined the accuracy of the Trustees projections.
- Discussions by Steve Goss and John Sabelhaus
- <http://www.aei.org/event/1561>

# Chuck's presentation at AEI



15

- Reviewed all Trustees Reports since 1983 to see how the projections compared to 2005 (trust fund ratio and annual balance).
- High cost assumptions were more on target to the dollar amount of the cash flow balance.
- But, the intermediate assumptions were the closest projections of the trust fund ratio and annual balance.

# Chuck's presentation at AEI



16

- Did the same review for years other than 2005 and found that the intermediate assumptions also were the best predictors.
- Chuck's conclusion: ***Past predictions of the trustees have been neither optimistic nor pessimistic, but instead completely on the mark. Only by extreme cherry-picking of data can one come to a different conclusion.***

# Steve's response at AEI



17

- Like others, the Trustees have proven to be unable to predict the timing of economic cycles.
- In fact there is no attempt to do so.
- Thus, when a cycle slows the Trustees appear optimistic
- And vice versa

# Steve's response at AEI



18

- In the long term demographic assumptions are the dominant factor for financial status
- Many suggest assumed mortality improvement is too slow
- Some suggest birth rates are too high
- If these assertions are valid, then the Trustees are potentially underestimating future cost

# Steve's response at AEI



19

## Conclusion:

**On the whole, the long-range numbers are speculative, but they have actually not changed all that much from year to year. While the long-range numbers are nothing more than conjecture, it is important to make sure that the assumptions behind them are reasonable, which seems to be the case with the trustees' predictions.**

# John's response at AEI



20

**There does not seem to be any bias in the trustees' predictions. At the same time, the long-term predictions issued by the trustees have not turned out to be entirely accurate. On the whole, there is a great deal of uncertainty inherent in long-term predictions, the result of which is that Social Security's finances can end up going any number of ways in future years.**