



DISCOUNTING TO PRESENT VALUE: DOES THERE HAVE TO BE A REDUCTION?

Extraordinary commitment.

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Johnnie Smith

3 year old male child

Traumatic Brain Injury

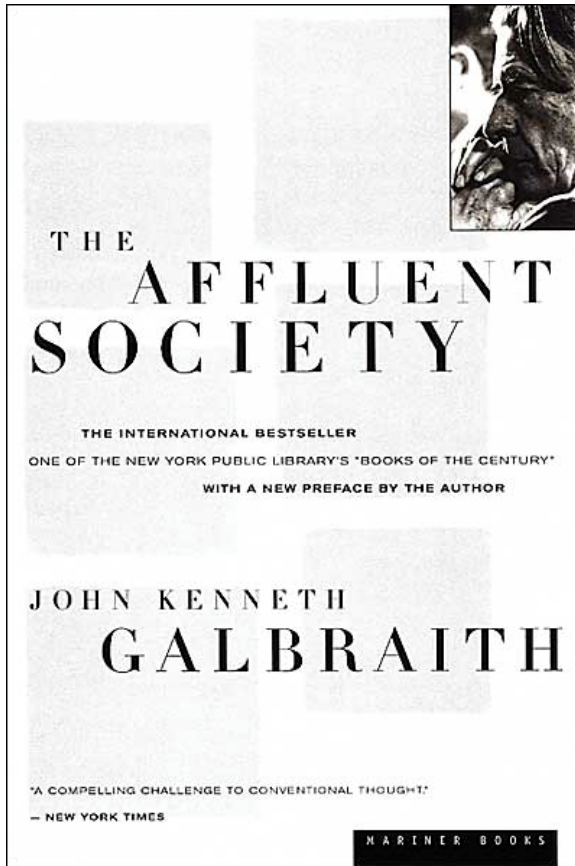
- \$3,646,562 future lost earnings
- Total Offset
- \$2,403,015 - 1% net discount
- \$1,619,559 - 2% net discount

Five Step Process

- Pre-injury earning capacity
- Pre-injury worklife expectancy
- Post-injury earning capacity
- Post-injury worklife expectancy
- Present value of loss

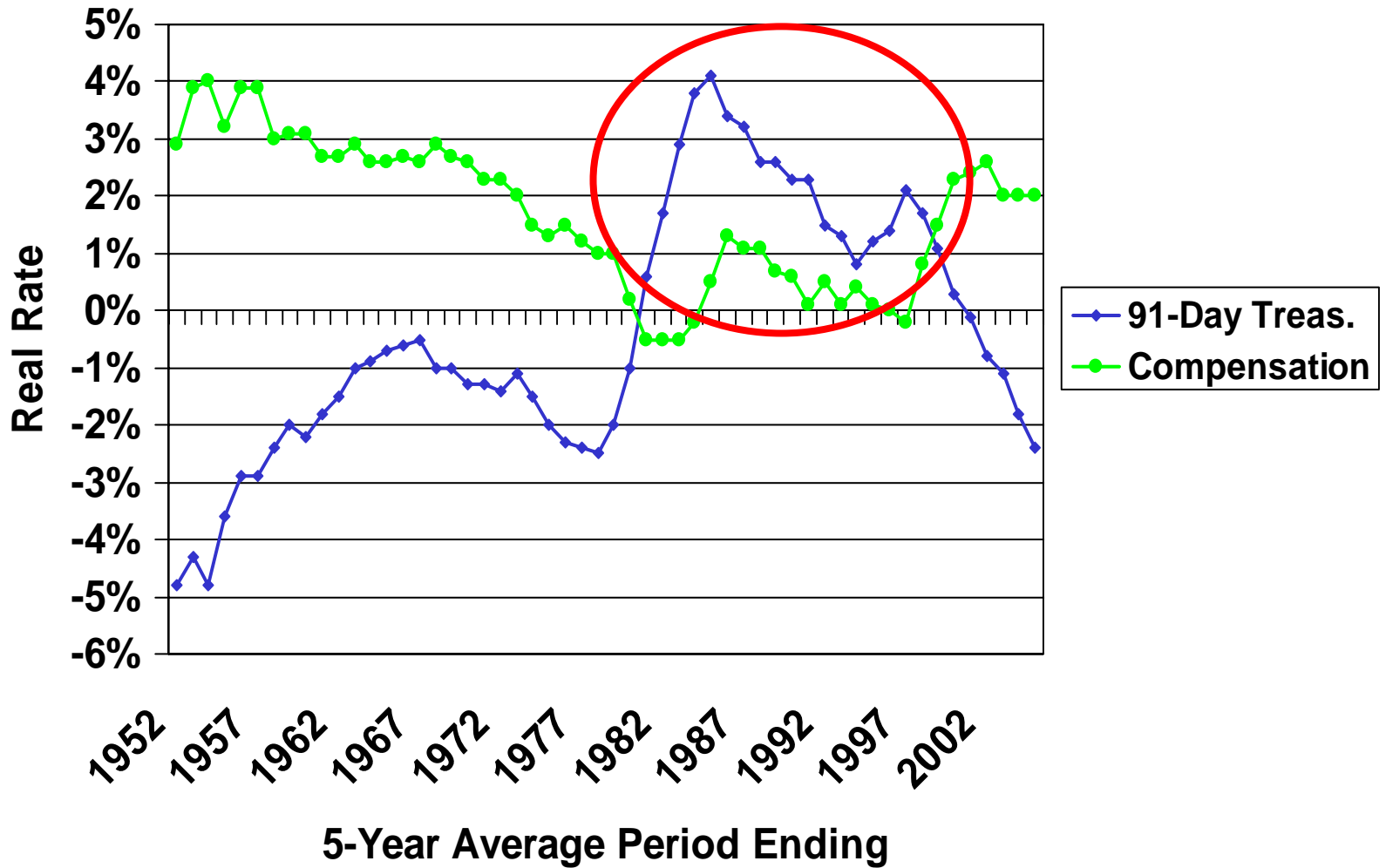


Conventional Wisdom

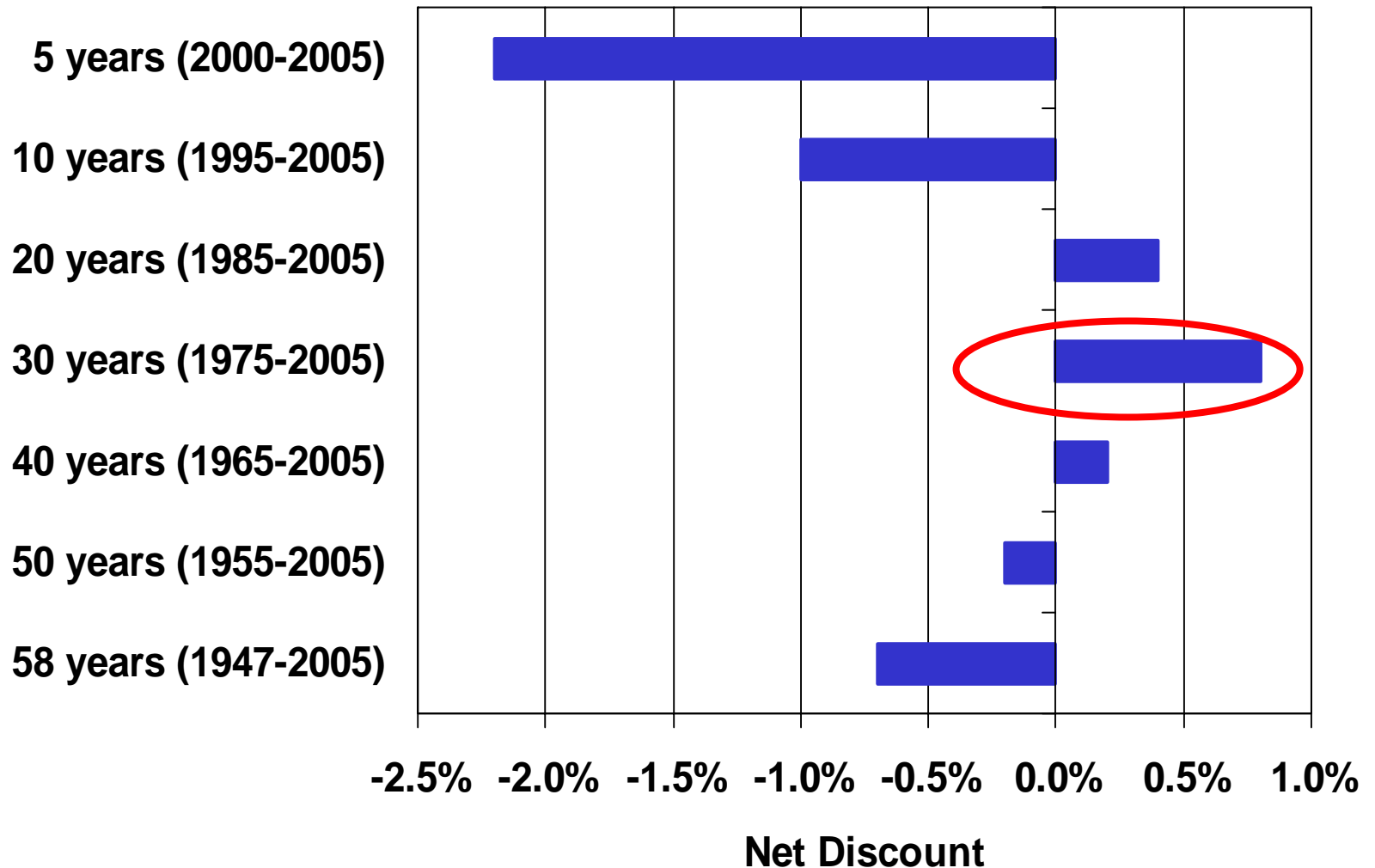


The term coined by Galbraith has a pejorative connotation when used to suggest that ideas or statements used repetitively come to be accepted as true whether or not they are true.

Real (Below-Market) Growth and Discount



Net Discount Rate at Varying Intervals



Present Value

- The rate of expected annual increases in compensation.
- The rate of return at which to invest the lump sum award.

The Rate of Expected Annual Increases in Compensation.

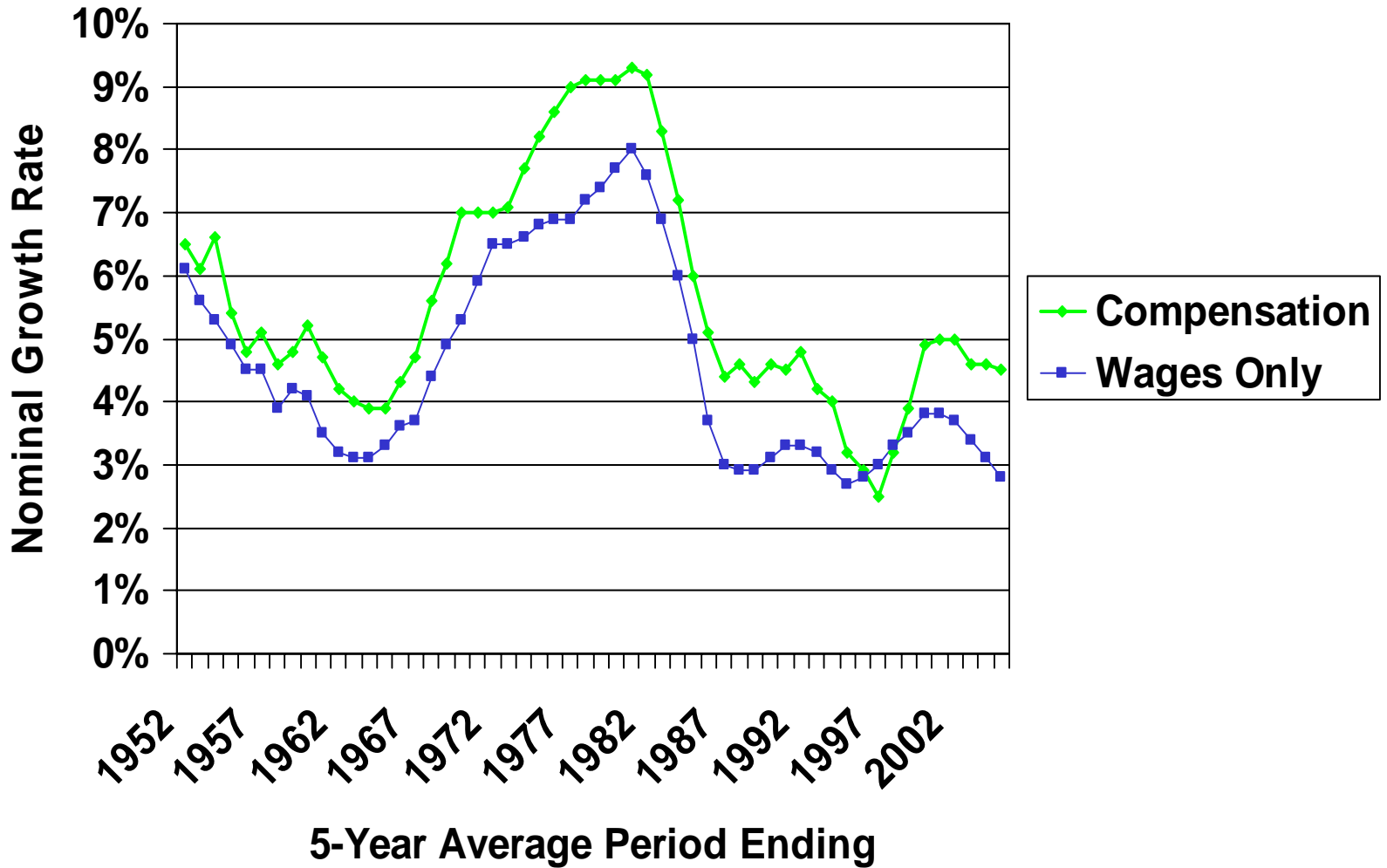
- Total Compensation
 - Actual salary
 - Fringe benefits

Jones & Laughlin Steel Corp. v. Pfeifer
462 US 523 (1983)

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Wage & Compensation Growth



Growth and Interest Rates through 2004

<i>Period</i>	<i>CPI</i>	<i>Wage Growth</i>	<i>Compensation Growth</i>	<i>91-Day T-Bill</i>	<i>10-Year Bond</i>
1947 - 2004	3.8	4.6	5.6	4.9	--
1954 - 2004	4.0	4.5	5.5	5.4	--
1964 - 2004	4.6	4.7	5.8	6.1	7.4
1974 - 2004	4.6	4.3	5.5	6.3	7.9
1984 - 2004	3.0	3.1	4.2	4.9	6.7
1994 - 2004	2.5	3.3	4.2	3.9	5.4

CPI: U.S. Bureau of Labor Statistics. Consumer Price Index, All Urban Consumers (CPI-U), U.S. City Average. Washington, DC.

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Compensation: U.S. Bureau of Labor Statistics. Major Sector Productivity and Costs Index: Hourly Compensation.

91-day T-Bill: Federal Reserve Bank. 3-Month Treasury Bill Rate (Secondary Market), Averages of 1947 to 2004 Daily Closing Bid Prices.

10-Year Bond: Federal Reserve Bank. 10-Year Treasury, Averages of 1962 to 2004 Daily Prices.

“In all cases where it is reasonable to suppose that interest may safely be earned upon the amount that is awarded, the ascertained future benefits ought to be discounted in the making up of the award.”

Chesapeake and Ohio R. Co. v. Kelly,
241 US 485 (1916).

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In arriving at the appropriate discount rate to be used, the discount rate should be based on the rate of interest that would be earned on “the best and safest investment.”

Jones & Laughlin Steel Corp. v. Pfeifer
462 US 523, 537 (1983)

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In Pfeifer, the United States Supreme Court noted that an injured worker is entitled to a risk-free stream of future income to replace his lost wages; therefore, the discount rate should not reflect the markets premium for investors who are willing to accept some risk of default. 462 US at 537.

91 Day T-Bill

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Growth and Interest Rates through 2004

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Problems with The 10 Year Bond

- Risk of inflation
- If sold prematurely, possible significant loss
- Tax liability- accretion rate

It is not possible to accurately forecast the future growth in compensation or the future return on investment (discount rate).

As the United States Court of Appeals for the 9th Circuit so aptly stated, “No one can accurately predict the course of future inflation. A survey of the general literature for the past several years illustrates a sorry tale of repeated confusion, contradiction and uncertainty in economic forecasts.”

Culver v. Slater (Culver II), 722 F.2nd 114 (9th Cir. 1984).

“This discussion and the evaluation of historical interest rates and wage growths have resulted in the conclusion that valid and accurate forecasting of interest rates and wage growth based on statistical analysis and historical data is not possible at the present.”

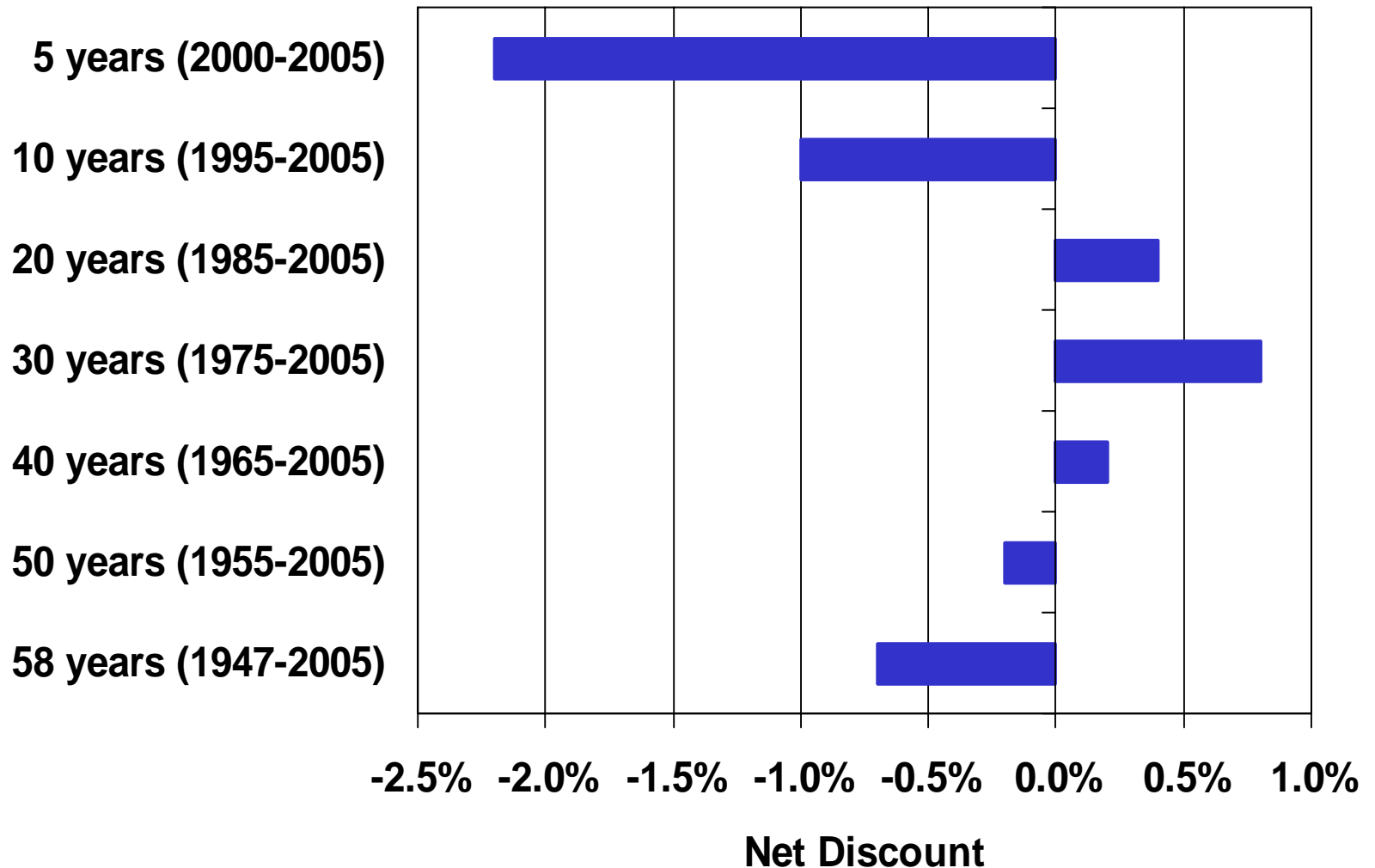
Lawlis, Frank and Male, Robert, “Methodological Issues: Interest Rate and Wage Growth Forecasting”

Growth and Interest Rates through 2004

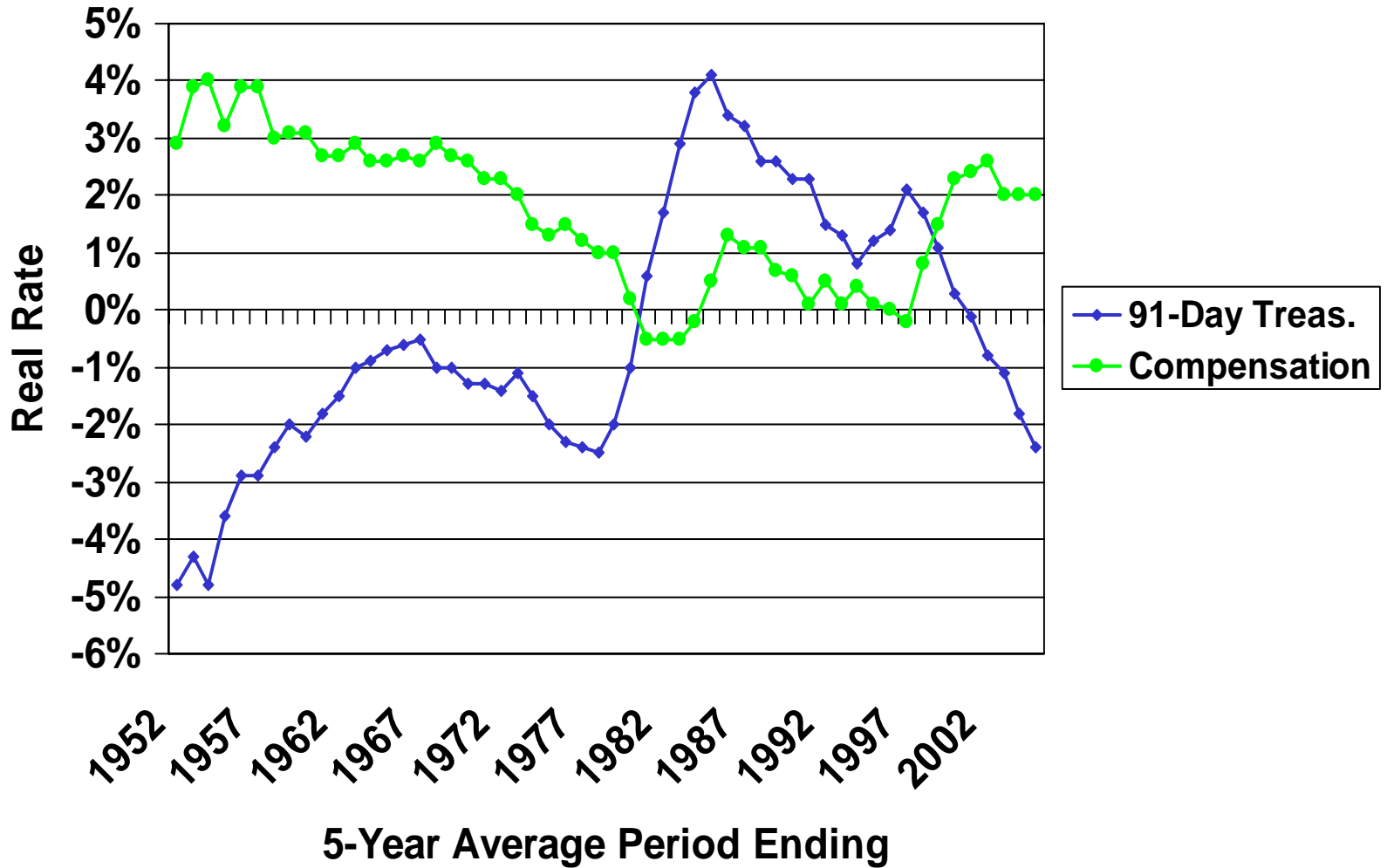
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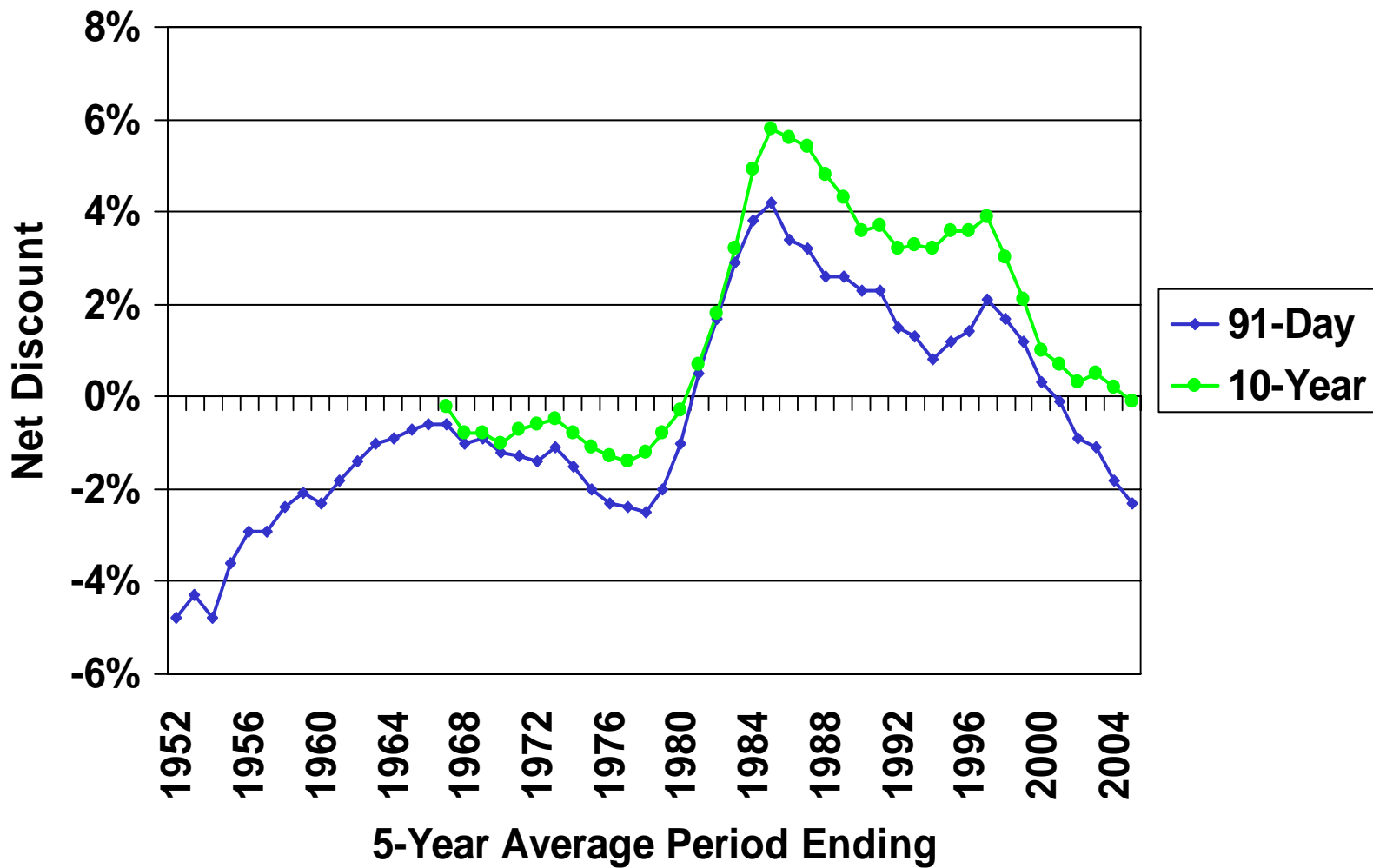
Net Discount Rate at Varying Intervals



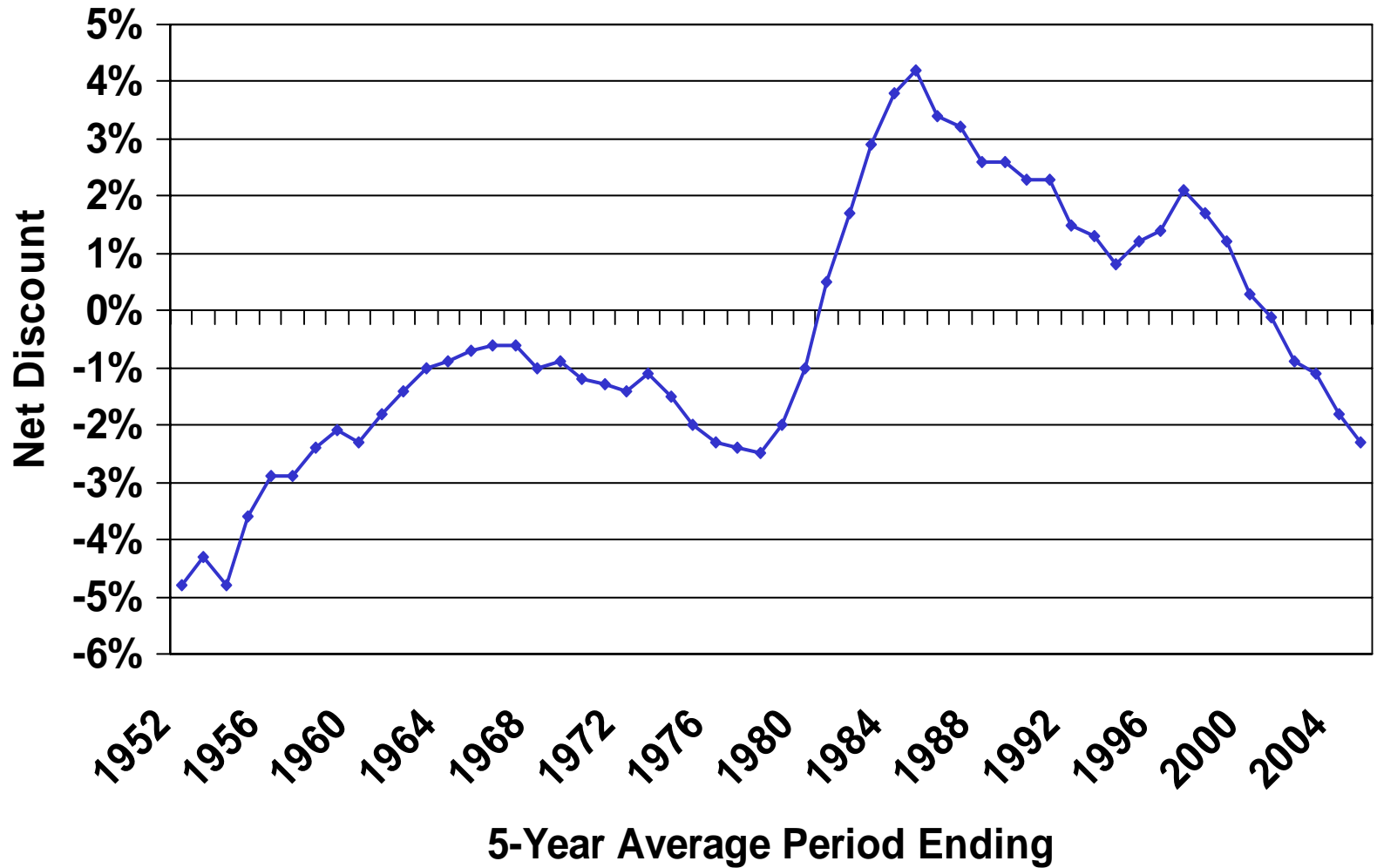
Real (Below-Market) Growth and Discount



Net Discount Rate



Net Discount Rate



Brody

- 45-year old manufacturing worker in 1960
- P had 20 years remaining until his retirement
- Using the average manufacturing worker's wages for 1960, this would have amounted to a loss of \$110,960.

First Approach

- The “traditional approach” which discounted for investment but ignored inflation. Utilizing this approach, P would have had only \$285 left by 1973, in which to compensate him for seven years of further lost earnings.

Second Approach

- 2. Inflate-discount method. There, the award is determined by multiplying current earnings by an expected inflation rate and then discounting the product in the traditional fashion. Utilizing the 1960 hypothetical, P would have fared better than the traditional approach but would have run out of money four years short of the goal of reaching 1980.

Third Approach

- 3. Partial offset method. In the partial offset method it is assumed that the interest rate traditionally used to discount awards is two percentage points greater than the inflation rate. Under the partial offset methodology, plaintiff again would have been under compensated, and P would have exhausted his funds in 1976, four years ahead of schedule.

Doca v. Marina Mercante Nicaraguense, S.A., 634 F.2nd 30, 36-37 (2nd Cir. 1980), cert. denied, 451 US 971 (1981))

Total Offset

- 4. The total offset method assumes that the interest rate used to discount awards is equal to and completely offset by the inflation rate.

Two Total Offset Methods

- Alaska Supreme Court in Beaulieu v. Elliot, 434 P. 2nd 665 (Alaska 1967),
- Pennsylvania Supreme Court total offset methodology (Kaczkowski v. Bolubasz, 491 PA 561, 421 A.2nd 1027 (PA 1980)).

Alaska

- Utilizing the Alaska method, P would have received the undiscounted sum of \$110,960.00. P would not have exhausted the award until mid-1979, virtually the exact date P would have retired had he not been injured.

Pennsylvania

- Utilizing the Pennsylvania method, P would have been overcompensated by over \$80,000.00.

Critics

**James E. Payne, Bradley T. Ewing, and Michael J. Picke*

Total Offset Method: Is it Appropriate? Evidence from ECI Data

Introduction

In the field of forensic economics, the term "total offset" generally refers to equalization of a growth rate, typically for wages or earning capacity, and a discount rate. When used in the calculation of economic damages such as in personal injury and wrongful death cases, this method has intuitive appeal because it is easy to implement and is readily comprehended by a jury. Additionally, depending on the particular point of view, it may also have the advantage of eliminating the use of an economist entirely as

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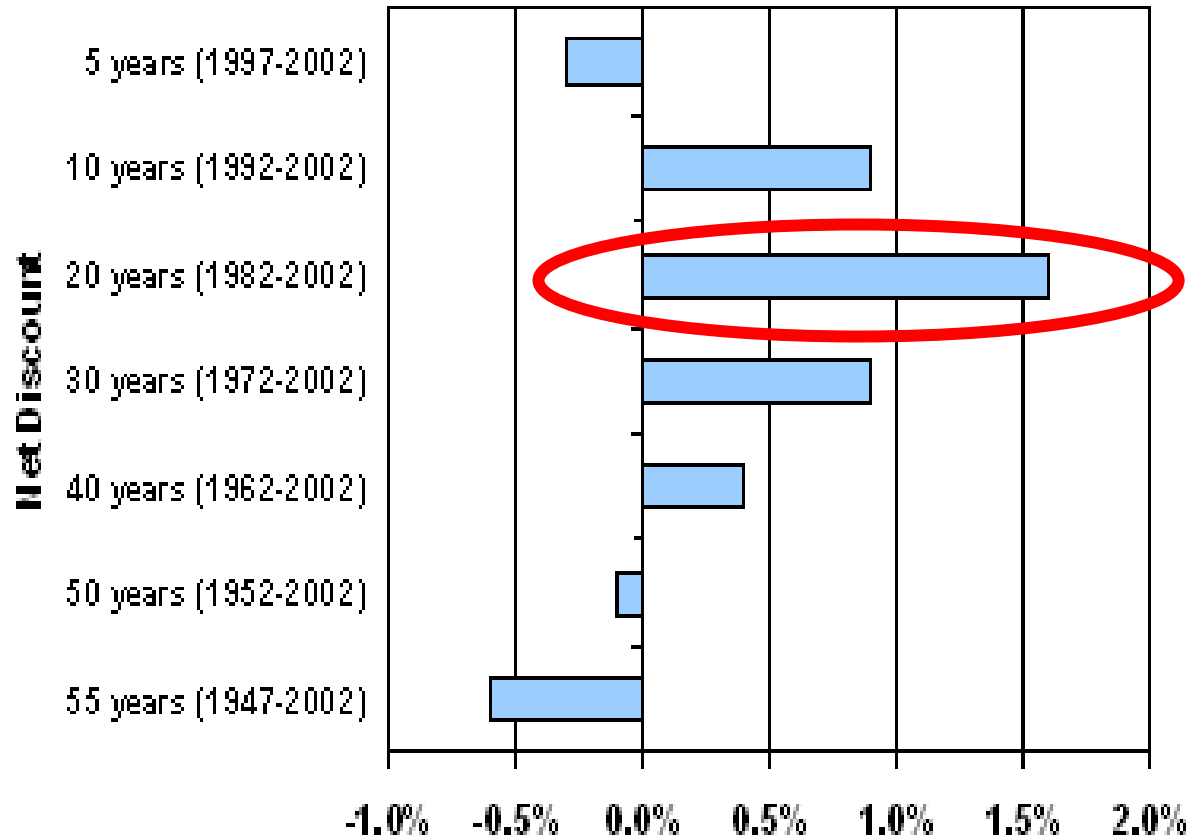
The authors appreciate the comments of Lee D. Johnson, Elizabeth A. W. Goodson, and a 9000 peer reviewer. We also wish to thank Kurt Kreuger for providing the data.

James E. Payne, Bradley T. Ewing, and Michael J. Picke: *Total Offset Method: Is it Appropriate? Evidence from ECI Data*

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Net Discount Rate

Net Discount Rate
Varying Intervals to Current Date



Johnnie Smith
3 year old male child
Traumatic Brain Injury Lifetime Loss

0.7% Net Negative Discount	\$4,942,656
Pure Offset	\$3,646,562
1% Net Discount	\$2,403,015
2% Net Discount	\$1,619,559