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POSTAL RATE COMMISSION
OF THE SECRETARY

RATE AND FEE CHANGES, 1997

Docket No. R97-1

DIRECT TESTIMONY OF
R. TIMOTHY MACDONALD
ON BEHALF OF
UNITED STATES POSTAL SERVICE

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1

DIRECT TESTIMONY
OF
R. TIMOTHY MACDONALD

AUTOBIOGRAPHICAL SKETCH

2 My name is R. Timothy Macdonald, and I am an accountant in the
3 National Accounting function of the United States Postal Service. I am a
4 Certified Public Accountant in the state of Virginia and have been with the Postal
5 Service for over six years, most recently at Headquarters since May of 1996. My
6 responsibilities at the Postal Service include the preparation of the annual
7 financial statements, the Annual Report and the Comprehensive Statement to
8 Congress. In addition, I perform analysis of accounting issues and policies, and
9 periodically am involved in special projects.

10 Prior to joining the Postal Service, I was employed for 15 years as a
11 systems accountant with the public utility company, Potomac Electric Power
12 Company (PEPCO). My experience at PEPCO consisted of the documentation,
13 program design and maintenance of all accounting systems at the federal and
14 state regulated utility. Prior to that, I worked in public accounting with the firms
15 Coopers & Lybrand and Laventhol & Horwath. My public accounting experience
16 consisted of management consulting and auditing of private companies, not-for-
17 profit organizations and government agencies.

18 I hold two degrees from Georgetown University, a Bachelor of Science
19 Degree in International Economics from the School of Foreign Service and a

- 1 Master of Science in Accounting from the Graduate School of Business. I am a
- 2 member of the American Institute of Certified Public Accountants.

PURPOSE AND SCOPE OF TESTIMONY

1 The purpose of my testimony is to explain the Postal Service's estimates
2 of Workers' Compensation expense in the test year. In the course of the
3 discussion, I will explain the components of this expense, the methodology by
4 which the estimates are calculated and the justification for the estimated test
5 year expense.

WORKERS' COMPENSATION

1 The Postal Service is projecting an expense of \$733.1 million for workers'
2 compensation costs in the FY 1998 test year. Comparable expenses for fiscal
3 years 1994, 1995, 1996 and 1997 are \$326.8 million, \$877.3 million, \$736.5
4 million and \$593.3 million, respectively. These amounts exclude all costs
5 attributable to Post Office Department employees injured prior to the
6 establishment of the Postal Service on July 1, 1971.

7 The Postal Service is subject to the Federal Employees' Compensation
8 Act (FECA). Accordingly, the workers' compensation program for Postal Service
9 claimants is managed by the Office of Workers' Compensation Programs
10 (OWCP) of the Department of Labor (DOL). The Postal Service is billed annually
11 by the OWCP for reimbursement of all payments made to, or on behalf of, Postal
12 Service workers' compensation claimants over the course of the prior OWCP
13 "chargeback year" (July 1 through June 30). With its reimbursement billing, the
14 OWCP also charges the Postal Service a pro-rata share of its estimated
15 administrative costs.

16 The annual Postal Service workers' compensation expense includes [or
17 you can say: "is comprised of"] three components: (1) the net present value of
18 the total estimated long-term liability for those claims which first become active
19 during the current chargeback year, (2) adjustments to the estimate of the
20 existing liability for claims that first became active in prior years, and (3) the pro-
21 rata share of OWCP administrative expenses. Adjustments in the estimated

1 liability result from changes in the numbers of active claims, cash outlays per
2 claim, and the estimated future durations of claims. Separate liability estimations
3 are made for (1) future costs arising from payments to be provided as
4 compensation to injured postal claimants and their survivors ("compensation"
5 claims) and (2) costs arising from future medical payments on behalf of injured
6 postal claimants ("medical" claims).

7 As noted above, Postal Service workers' compensation expense is
8 estimated to be \$733.1 million in the FY 1998 test year. This amount represents
9 a continuation of a trend towards moderation that has been seen from fiscal year
10 1994 forward. This trend towards reductions in, and the leveling off of, this
11 volatile expense component reflect the effects of cost reduction efforts
12 undertaken by Postal Service management as a response to the increases in our
13 workers' compensation expense seen in the period of fiscal years 1988 through
14 1993. This trend also reflects actions undertaken by the DOL's Office of
15 Workers' Compensation Programs. Efforts undertaken by the Postal Service
16 include the National Workers' Compensation Task Force, contractor review of in-
17 patient hospital expenses, the Limited Duty Task Force, and ongoing Inspection
18 Service efforts to detect fraud and abuse. DOL efforts include their nurse
19 intervention program, Periodic Roll review teams and quality case management
20 initiatives. Taken together, these efforts have arrested the trend towards
21 escalation in postal workers' compensation expense.

1 The Liability Estimation Model

2 In reporting its financial results, the Postal Service uses the workers'
3 compensation estimation model to determine the year-end liability. Changes in
4 that liability relative to the prior fiscal year end represent an expense component.
5 In its estimations, the model uses payment data provided on tape by the OWCP.
6 These data are processed at the Minneapolis Accounting Service Center to
7 prepare summary data by year of injury and severity of injury. These summary
8 OWCP data, including paid claims, average costs per claim, and a distribution of
9 claimant age at time of injury, are used as estimation model input.

10 Since fiscal year 1991, the Postal Service has used the "extended age"
11 estimation model. This model uses actual historic claimant transition ratios, or
12 derivations of the mathematical likelihoods of claims being paid in the next year,
13 to estimate "surviving" claims that will be paid in future years. These transition
14 ratios are used to estimate surviving claims for the first twenty-five payment
15 years. After twenty-five years of payment, claims are deemed to be permanent
16 and the numbers of subsequent surviving claims are estimated using life annuity
17 tables in conjunction with the claimant age at time of injury distribution. Prior to
18 the adoption of the "extended age" model, the Postal Service used a model that
19 assumed all claims became permanent after eight payment years.

20

21 The Net Discount Factor

22 An important component of the workers' compensation liability and
23 expense estimation is the net discount factor used to determine the present

1 value of estimated future payments. The Postal Service currently uses net
2 discount factors of 0.1 percent for medical claims and 3.0 percent for
3 compensation claims. The Postal Service conducts a review of these net
4 discount factors on an ongoing basis to validate their appropriateness. A
5 summary of all discount rate analyses over the last ten years is included as
6 Exhibit USPS-10A. Our most recent prospective and historical discount rate
7 analyses for medical and compensation claims are included as Exhibits USPS-
8 10B, USPS-10C, USPS-10D, USPS-10E, USPS-10F and USPS-10G. These
9 analyses are based on data published in DRI/McGraw-Hill's *Review of the U.S.*
10 *Economy, Long-Range Focus*. In the opinion of postal management, the
11 discount rates currently used for medical and compensation claims represent a
12 reasonable difference between medical and societal discount rates and the rates
13 of return on government debt instruments of comparable terms to the
14 approximate likely lives of medical and compensation claims. It is our opinion
15 that the factors currently used reflect the value of the two individual liability
16 components and the value of the workers' compensation liability as a whole.

Workers' Compensation
Discount Rate Analysis
Summary Table of Results of Estimated Discount Rates
Derived from DRI Data
1987 - 1996

USPS-10A

Prospective Analyses

| Publication Date | <u>Compensation</u> | | <u>Medical</u> | |
|------------------|---------------------|---------------|----------------|---------------|
| | Trend Rate | Cyclical Rate | Trend Rate | Cyclical Rate |
| Summer, 1987 | 2.92% | 3.37% | 0.11% | 0.57% |
| Winter, 1987-88 | 3.14% | 3.20% | -0.03% | 0.38% |
| Summer, 1988 | 2.82% | 2.95% | -0.08% | 0.01% |
| Winter, 1988-89 | 2.97% | 3.04% | 0.14% | 0.00% |
| Summer, 1989 | 2.57% | 2.87% | -0.26% | 0.04% |
| Winter, 1989-90 | 2.88% | 4.96% | -0.35% | 1.86% |
| Summer, 1990 | 3.00% | 4.50% | 0.14% | 1.74% |
| Winter, 1990-91 | 3.27% | 3.22% | 0.29% | 0.40% |
| Summer, 1991 | 3.47% | 3.82% | 0.22% | 0.53% |
| Winter, 1990-91 | 3.41% | 2.83% | 0.07% | -0.44% |
| Summer, 1992 | 2.96% | 3.04% | -0.65% | -0.90% |
| Winter, 1991-92 | 3.42% | 3.36% | -0.23% | -0.42% |
| Summer, 1993 | 3.23% | 3.36% | -0.18% | -0.21% |
| Winter, 1993-94 | 3.00% | 2.89% | 0.01% | -0.26% |
| Winter, 1994-95 | 3.30% | 3.11% | 0.52% | 0.25% |
| Summer, 1995 | 1.88% | 2.02% | 0.37% | 0.55% |
| Winter, 1995-96 | 1.69% | 2.13% | 0.08% | -0.12% |
| Summer, 1996 | 2.78% | 3.17% | -0.02% | -0.07% |
| Winter, 1996-97 | 2.89% | 3.11% | 0.06% | -0.02% |
| Averages | 2.93% | 3.21% | 0.01% | 0.20% |

Historic Analyses

| | <u>Compensation</u> | <u>Medical</u> |
|------|---------------------|----------------|
| 1988 | 2.65% | 0.00% |
| 1989 | 2.77% | 0.03% |
| 1990 | 2.86% | 0.14% |
| 1991 | 2.96% | 0.14% |
| 1992 | 3.02% | 0.09% |
| 1993 | 3.14% | -0.15% |
| 1994 | 3.53% | -0.13% |
| 1995 | 3.78% | 0.18% |
| 1996 | 3.87% | 0.52% |

Workers' Compensation
Medical Discount Rate Analysis
Trend Projection

USPS-10B

| Year | Medical Services | 3-Month T-Bills | NET |
|---------|------------------|-----------------|-------------|
| 1996 | 1.90 | 5.14 | 3.24 |
| 1997 | 3.00 | 5.38 | 2.38 |
| 1998 | 4.30 | 5.50 | 1.20 |
| 1999 | 4.70 | 5.34 | 0.64 |
| 2000 | 4.80 | 5.02 | 0.22 |
| 2001 | 4.90 | 4.92 | 0.02 |
| 2002 | 4.90 | 4.89 | -0.01 |
| 2003 | 4.90 | 4.88 | -0.02 |
| 2004 | 5.00 | 4.90 | -0.10 |
| 2005 | 5.20 | 4.92 | -0.28 |
| 2006 | 5.30 | 4.92 | -0.38 |
| 2007 | 5.50 | 4.92 | -0.58 |
| 2008 | 5.60 | 4.92 | -0.68 |
| 2009 | 5.60 | 4.91 | -0.69 |
| 2010 | 5.50 | 4.91 | -0.59 |
| 2011 | 5.50 | 4.90 | -0.60 |
| 2012 | 5.50 | 4.90 | -0.60 |
| 2013 | 5.60 | 4.91 | -0.69 |
| 2014 | 5.50 | 4.91 | -0.59 |
| 2015 | 5.60 | 4.91 | -0.69 |
| Average | | | 0.06 |

Source: DRI Review of the U.S. Economy, Winter 1996-97
Trend Projection
Medical Services Index from Table 15, "Inflation and Productivity"
Short-Term Rates for 3-Month Treasury Bills from Table 21,
"Interest Rates, Money Flows, and Other Financial Variables"

Workers' Compensation
Medical Discount Rate Analysis
Cycle Projection

USPS-10C

| Year | Medical Services | 3-Month T-Bills | NET |
|----------|------------------|-----------------|--------------|
| 1996 | 1.90 | 5.14 | 3.24 |
| 1997 | 3.00 | 5.38 | 2.38 |
| 1998 | 4.30 | 5.50 | 1.20 |
| 1999 | 4.80 | 6.07 | 1.27 |
| 2000 | 6.00 | 6.61 | 0.61 |
| 2001 | 7.40 | 4.68 | -2.72 |
| 2002 | 6.50 | 4.52 | -1.98 |
| 2003 | 4.60 | 4.72 | 0.12 |
| 2004 | 4.30 | 5.38 | 1.08 |
| 2005 | 5.70 | 6.63 | 0.93 |
| 2006 | 7.40 | 6.35 | -1.05 |
| 2007 | 8.20 | 5.23 | -2.97 |
| 2008 | 7.00 | 4.82 | -2.18 |
| 2009 | 5.30 | 4.62 | -0.68 |
| 2010 | 4.40 | 5.43 | 1.03 |
| 2011 | 5.40 | 6.64 | 1.24 |
| 2012 | 7.30 | 6.94 | -0.36 |
| 2013 | 8.10 | 5.89 | -2.21 |
| 2014 | 6.10 | 5.35 | -0.75 |
| 2015 | 4.40 | 5.72 | 1.32 |
| Average: | | | -0.02 |

Source: DRI Review of the U.S. Economy, Winter 1996-97
Cycle Projection
Medical Services Index from Table 15, "Inflation and Productivity"
Short-Term Rates for 3-Month Treasury Bills from Table 21,
"Interest Rates, Money Flows, and Other Financial Variables"

Workers' Compensation
Discount Rate Analysis
Trend Projection

USPS-10D

| Year | (1) Urban Wage & Clerical Workers | (2) 30 Year U.S. Bonds | (3) NET 2 - 1 | (4) 10 Year U S. Bonds | (5) NET 4 - 1 | (6) 5 Year U.S. Bonds | (7) NET 6 - 1 |
|--------------|---|------------------------------|---------------------|------------------------------|---------------------|-----------------------------|---------------------|
| 1996 | 2.90 | 6.70 | 3.80 | 6.44 | 3.54 | 6.17 | 3.27 |
| 1997 | 2.60 | 6.77 | 4.17 | 6.55 | 3.95 | 6.31 | 3.71 |
| 1998 | 2.60 | 7.05 | 4.45 | 6.85 | 4.25 | 6.55 | 3.95 |
| 1999 | 2.90 | 6.95 | 4.05 | 6.74 | 3.84 | 6.43 | 3.53 |
| 2000 | 3.20 | 6.72 | 3.52 | 6.48 | 3.28 | 6.15 | 2.95 |
| 2001 | 3.30 | 6.67 | 3.37 | 6.43 | 3.13 | 6.08 | 2.78 |
| 2002 | 3.40 | 6.67 | 3.27 | 6.40 | 3.00 | 6.06 | 2.66 |
| 2003 | 3.50 | 6.67 | 3.17 | 6.40 | 2.90 | 6.06 | 2.56 |
| 2004 | 3.70 | 6.62 | 2.92 | 6.36 | 2.66 | 6.03 | 2.33 |
| 2005 | 3.80 | 6.56 | 2.76 | 6.32 | 2.52 | 6.00 | 2.20 |
| 2006 | 3.90 | 6.54 | 2.64 | 6.31 | 2.41 | 5.99 | 2.09 |
| 2007 | 3.90 | 6.57 | 2.67 | 6.34 | 2.44 | 6.01 | 2.11 |
| 2008 | 3.90 | 6.59 | 2.69 | 6.35 | 2.45 | 6.02 | 2.12 |
| 2009 | 3.90 | 6.62 | 2.72 | 6.37 | 2.47 | 6.04 | 2.14 |
| 2010 | 3.90 | 6.67 | 2.77 | 6.41 | 2.51 | 6.07 | 2.17 |
| 2011 | 4.00 | 6.73 | 2.73 | 6.45 | 2.45 | 6.10 | 2.10 |
| 2012 | 3.90 | 6.75 | 2.85 | 6.47 | 2.57 | 6.12 | 2.22 |
| 2013 | 3.80 | 6.72 | 2.92 | 6.44 | 2.64 | 6.10 | 2.30 |
| 2014 | 3.80 | 6.73 | 2.93 | 6.45 | 2.65 | 6.11 | 2.31 |
| 2015 | 3.90 | 6.78 | 2.88 | 6.49 | 2.59 | 6.14 | 2.24 |
| Averages: | | | 3.16 | | 2.91 | | 2.59 |
| Average All: | | 2.89 | | | | | |

Source: DRI Review of the U.S. Economy, Winter 1996-97
Trend Projection
Urban Wage & Clerical Workers Index from Table 15, "Inflation and Productivity"
Interest Rates from Table 21, "Interest Rates, Money Flows, and Other Financial Variables"

Workers' Compensation
Discount Rate Analysis
Cycle Projection

USPS-10E

| Year | (1) Urban Wage & Clerical Workers | (2) 30 Yr. U.S. Bonds | (3) NET 2 - 1 | (4) 10 Yr. U.S. Bonds | (5) NET 4 - 1 | (6) 5 Yr. U.S. Bonds | (7) NET 6 - 1 |
|--------------|---|-----------------------------|---------------------|-----------------------------|---------------------|----------------------------|---------------------|
| 1996 | 2.90 | 6.70 | 3.80 | 6.44 | 3.54 | 6.17 | 3.27 |
| 1997 | 2.60 | 6.77 | 4.17 | 6.55 | 3.95 | 6.31 | 3.71 |
| 1998 | 2.60 | 7.05 | 4.45 | 6.85 | 4.25 | 6.55 | 3.95 |
| 1999 | 3.30 | 7.29 | 3.99 | 7.15 | 3.85 | 6.91 | 3.61 |
| 2000 | 5.30 | 8.11 | 2.81 | 7.95 | 2.65 | 7.66 | 2.36 |
| 2001 | 4.40 | 7.85 | 3.45 | 7.43 | 3.03 | 6.85 | 2.45 |
| 2002 | 4.40 | 7.48 | 3.08 | 7.06 | 2.66 | 6.53 | 2.13 |
| 2003 | 3.70 | 7.14 | 3.44 | 6.79 | 3.09 | 6.34 | 2.64 |
| 2004 | 3.30 | 7.02 | 3.72 | 6.79 | 3.49 | 6.48 | 3.18 |
| 2005 | 5.30 | 7.72 | 2.42 | 7.61 | 2.31 | 7.38 | 2.08 |
| 2006 | 6.10 | 8.41 | 2.31 | 8.17 | 2.07 | 7.78 | 1.68 |
| 2007 | 5.20 | 8.21 | 3.01 | 7.83 | 2.63 | 7.28 | 2.08 |
| 2008 | 5.00 | 7.72 | 2.72 | 7.33 | 2.33 | 6.80 | 1.80 |
| 2009 | 4.00 | 7.19 | 3.19 | 6.83 | 2.83 | 6.35 | 2.35 |
| 2010 | 3.20 | 7.09 | 3.89 | 6.85 | 3.65 | 6.54 | 3.34 |
| 2011 | 4.30 | 7.66 | 3.36 | 7.55 | 3.25 | 7.35 | 3.05 |
| 2012 | 6.30 | 8.53 | 2.23 | 8.36 | 2.06 | 8.06 | 1.76 |
| 2013 | 4.70 | 8.55 | 3.85 | 8.21 | 3.51 | 7.73 | 3.03 |
| 2014 | 3.90 | 7.84 | 3.94 | 7.48 | 3.58 | 7.04 | 3.14 |
| 2015 | 3.10 | 7.60 | 4.50 | 7.31 | 4.21 | 6.98 | 3.98 |
| Averages: | | | 3.42 | | 3.15 | | 2.77 |
| Average All: | | 3.11 | | | | | |

Source: DRI Review of the U.S. Economy, Winter 1996-97
Cycle Projection
Urban Wage & Clerical Workers Index from Table 15, "Inflation and Productivity"
Interest Rates from Table 21, "Interest Rates, Money Flows, and Other Financial Variables"

Workers' Compensation
Medical Discount Rate Analysis
Historical Trends: 1977- 1996

USPS-10F

| Fiscal Year | Medical Inflation | 3-Month T-Bills | NET |
|-------------|-------------------|-----------------|-------|
| 1977 | 9.70 | 5.27 | -4.43 |
| 1978 | 7.90 | 7.19 | -0.71 |
| 1979 | 8.60 | 10.07 | 1.47 |
| 1980 | 11.30 | 11.43 | 0.13 |
| 1981 | 11.60 | 14.03 | 2.43 |
| 1982 | 9.60 | 10.61 | 1.01 |
| 1983 | 7.20 | 8.61 | 1.41 |
| 1984 | 6.70 | 9.52 | 2.82 |
| 1985 | 5.80 | 7.48 | 1.68 |
| 1986 | 4.60 | 5.98 | 1.38 |
| 1987 | 5.80 | 5.77 | -0.03 |
| 1988 | 6.80 | 6.67 | -0.13 |
| 1989 | 6.80 | 8.11 | 1.31 |
| 1990 | 5.50 | 7.49 | 1.99 |
| 1991 | 6.50 | 5.38 | -1.12 |
| 1992 | 5.50 | 3.43 | -2.07 |
| 1993 | 5.10 | 3.00 | -2.10 |
| 1994 | 4.00 | 4.35 | 0.35 |
| 1995 | 3.80 | 5.65 | 1.85 |
| 1996 | 1.90 | 5.14 | 3.24 |

Averages: **0.52**

Sources: 1975 - 1988 from DRI U.S. Long-Term Review, Fall, 1986
1989 from DRI Review of the U.S. Economy, Winter, 1989-90
1990 from DRI Review of the U.S. Economy, Winter, 1990-91
1991 from DRI Review of the U.S. Economy, Winter, 1991-92
1992 from DRI Review of the U.S. Economy, Winter, 1992-93
1993 from DRI Review of the U.S. Economy, Winter, 1993-94
1994 from DRI Review of the U.S. Economy, Winter, 1994-95
1995 from DRI Review of the U.S. Economy, Winter, 1995-96
1996 from DRI Review of the U.S. Economy, Winter, 1996-97

WORKERS' COMPENSATION
DISCOUNT RATE ANALYSIS
(HISTORICAL TRENDS)
FY 1996

| Year | (1) Urban Wage & Clerical Workers | (2) 20 Years U.S. Bonds | (3) NET 2 - 1 | (4) 10 Yr. U.S. Bonds | (5) NET 4 - 1 | (6) 3-5 Yr. U.S. Bonds | (7) NET 6 - 1 |
|-------------|---|-------------------------------|---------------------|-----------------------------|---------------------|------------------------------|---------------------|
| 1977 | 6.50 | 7.70 | 1.20 | 7.40 | 0.90 | 6.80 | 0.30 |
| 1978 | 7.60 | 8.50 | 0.90 | 8.40 | 0.80 | 8.30 | 0.70 |
| 1979 | 11.40 | 9.30 | (2.10) | 9.40 | (2.00) | 9.60 | (1.80) |
| 1980 | 13.50 | 11.40 | (2.10) | 11.50 | (2.00) | 11.50 | (2.00) |
| 1981 | 10.30 | 13.70 | 3.40 | 13.90 | 3.60 | 14.30 | 4.00 |
| 1982 | 6.00 | 12.90 | 6.90 | 13.00 | 7.00 | 13.00 | 7.00 |
| 1983 | 3.00 | 11.30 | 8.30 | 11.10 | 8.10 | 10.60 | 7.60 |
| 1984 | 3.40 | 12.50 | 9.10 | 12.40 | 9.00 | 12.10 | 8.70 |
| 1985 | 3.50 | 11.00 | 7.50 | 10.70 | 7.20 | 9.90 | 6.40 |
| 1986 | 1.50 | 7.90 | 6.40 | 7.70 | 6.20 | 7.20 | 5.70 |
| 1987 | 3.60 | 8.70 | 5.10 | 8.40 | 4.80 | 7.80 | 4.20 |
| 1988 | 4.00 | 9.10 | 5.10 | 8.90 | 4.90 | 8.40 | 4.40 |
| 1989 | 4.80 | 8.44 * | 3.64 | 8.50 | 3.70 | 8.53 ** | 3.73 |
| 1990 | 5.30 | 8.61 * | 3.31 | 8.55 | 3.25 | 8.32 ** | 3.02 |
| 1991 | 4.00 | 8.14 * | 4.14 | 7.86 | 3.86 | 6.96 ** | 2.96 |
| 1992 | 2.90 | 7.67 * | 4.77 | 7.01 | 4.11 | 6.18 + | 3.28 |
| 1993 | 2.80 | 6.60 * | 3.80 | 5.87 | 3.07 | 5.13 + | 2.33 |
| 1994 | 2.50 | 7.37 * | 4.87 | 7.08 | 4.58 | 6.68 + | 4.18 |
| 1995 | 2.80 | 6.88 * | 4.08 | 6.58 | 3.78 | 6.38 + | 3.58 |
| 1996 | 2.90 | 6.70 * | 3.80 | 6.44 | 3.54 | 6.17 + | 3.27 |
| AVERAGE | | | 4.11 | | 3.92 | | 3.58 |
| AVERAGE ALL | | | 3.87 | | | | |

NOTES: * = 20 year bond index discontinued; 30 year bond index used instead.
 ** = 3-5 year bond index discontinued; 4 year bond index used instead.
 + = 4 year bond index discontinued; 5 year bond index used instead.

SOURCES:

- Source 1996 data: DRI/McGraw-Hill Review of the U.S. Economy, Long-Range Focus, Winter 1996-97
- Source 1995 data: DRI/McGraw-Hill Review of the U.S. Economy, Long-Range Focus, Winter 1995-96
- Source 1994 data: DRI/McGraw-Hill Review of the U.S. Economy, Long-Range Focus, Winter 1994-95
- Source 1993 data: DRI/McGraw-Hill Review of the U.S. Economy, Long-Range Focus, Winter 1993-94
- Source 1992 data: DRI/McGraw-Hill Review of the U.S. Economy, Long-Range Focus, Winter 1992-93
- Source 1991 data: DRI/McGraw-Hill Review of the U.S. Economy, Long-Range Focus, Winter 1991-92
- Source 1990 data: DRI/McGraw-Hill Review of the U.S. Economy, Long-Range Focus, Winter 1990-91
- Source 1989 data: DRI/McGraw-Hill Review of the U.S. Economy, Long-Range Focus, Winter 1989-90
- Source 1987-88 data: DRI/McGraw-Hill U.S. Long-Term Review, Spring, 1988
- Source 1977-86 data: DRI/McGraw-Hill U.S. Long-Term Review, Fall, 1986