

Historical Comparisons Between Various Interest Rates and Growth Rates in the CPI, MCPI,  
Average Weekly Earnings and Total Compensation in the Employer Cost Index

3/18/01 draft date

Thomas R. Ireland  
Department of Economics  
University of Missouri at St. Louis  
8001 Natural Bridge Road  
St. Louis, MO 63121  
Tel: 314/516-5558  
Fax: 314/516-5352  
E-Mail: ireland@jinx.umsl.edu

**Abstract**

This paper provides historical comparisons between six different interest rates and growth rates in the Consumer Price Index, the Medical Consumer Price Index, the Average Weekly Earnings Series and Total Compensation in the Employer Cost Index. Comparisons are provided in the form of side by side annual rates of change, average rates of change for numbers of years ending in 1999, and net discount rates (the real interest rate in the case of the CPI) for numbers of years ending in 1999. The purpose of these comparisons is to enable forensic economists to easily counter inflated claims of net growth that are sometimes made by would-be economic experts. The comparisons provided show that there is no basis for real interest rates of less than 2.5 percent or net discount rates for labor earnings of less than 1.5 percent (not including age-earnings adjustments) no matter what interest rate is chosen as a discount rate and no matter how many years (up to 47 years in the case of the CPI and 41 years in the case of Average Weekly Earnings) are considered. In the case of the MCPI, however, the rates are smaller and, with some interest rates and time periods, a “more than offset” net discount rate can be demonstrated.

# Historical Comparisons Between Various Interest Rates and Growth Rates in the CPI, MCPI, Average Weekly Earnings and Total Compensation in the Employer Cost Index\*

## Introduction

Forensic economists who calculate damages in personal injury and wrongful death disagree about appropriate discount rates to use for reducing future values to present value and about growth rates that should be used to project increases in wages, fringe benefits, the price level and the medical component of the price level. Those disagreements take two forms. First, there is disagreement over which interest rates to consider. Some economists advocate use of instruments of very short maturities only, such as the 91 Day U.S. Treasury Bill Rate or the Six Month U.S. Treasury Bill Rate. Some advocate use of One year or Three Year Notes or Ten Year or 30 Year U.S. Treasury Bonds. Some advocate use of Municipal Aaa rates because of their tax free features. Some advocate use of rates on Treasury Inflation Indexed Securities and some advocate blended rates. Likewise, there is some disagreement about whether to measure changes in earnings by use of the Average Weekly Earnings series or the Employer Cost Index.

The second form of disagreement focuses on the historical periods that should be considered when choosing both a discount rate and an earnings growth rate. This area of disagreement can be further divided into two issues. The first issue is whether the discount rate and earnings and price growth rates should be treated disparately or in the same manner. Some forensic economists argue that growth rates in earnings and prices should be derived from past data, but the discount rate should be based on current market data. Others argue that if past

---

\*The author would like to thank Thomas O. Depperschmidt for extensive comments in preparation of this paper.

growth rates in earnings and prices are used, discount rates from the same period should also be used. The second issue is what the appropriate period should be if one is using past data for either growth rates or growth rates in earnings and prices. Should it be five years, ten years, twenty years, or some other period? There is indication of the scope of differences that exist in the 1999 survey of members of the National Association of Forensic Economics [Brookshire and Slesnick, 1999].

Those issues notwithstanding, the purpose of this paper is not to argue for or against particular interest rates or historical periods (though this author has expressed his views on these matters elsewhere). Rather, the purpose is to provide broad based data to facilitate whatever historical comparisons any given researcher might wish to make between commonly used growth rates and discount rates. It is this writer's hope that the tables provided in this paper, particularly Tables 7 and 8, will enable good forensic economists to quickly disprove factually inaccurate calculations they may confront when looking at the reports of other forensic economists. The rate comparisons provided in this paper include the 91 Day Treasury Bill rate, the three year Treasury Note Rate, the ten year Treasury Bond rate, the thirty year Treasury Bond rate, the Muni Aaa rate, the Corporate Aaa rate compared with rates of growth in the Consumer Price Index (CPI), the medical component of the consumer price index (MCPI), average weekly earnings, and the total compensation series in the Employer Cost Index (ECI).

For convenience, all data in this paper are taken from the *Economic Report of the President: 2000*. That convenience imposed limits on the length of the historical periods that could be considered. Table B-71 provides annual values for most of the interest rates back to 1953, allowing for 47 years of comparisons. The only exception is the 30 Year U.S. Treasury

Bond, which only began to be issued in 1977, allowing for 23 years of comparisons. Rates of increase in the CPI and MCPI are taken from Table B-3. Data in that table goes back to 1940, but only figures after 1953 were used, based on availability of discount rates from Table B-71. Data for the Average Weekly Earnings series in Table B-45 starts in 1959, which imposes a 41 year limit. Data for the ECI total compensation series is reported only after 1980, imposing a 20 year limit. Within those limitations, Tables 1-8 of this paper provide *all* of the comparisons that could be made for growth trends ending in 1999.

The comparisons developed in this paper demonstrate that no matter what interest rate one selects and no matter how long the period one selects, one can find no justification for “total offset” or “more than total offset” discount rates for any comparison except the MCPI. While the net discount rates developed in this paper do not include age-earnings effects, one cannot find a net discount rate for an earnings growth rate comparison with any discount rate that results in a less than 1.1 percent net discount rate. This is true even for the a comparisons using the 91 Day Treasury Bill Rate. The 1.1 percent appears for a period of three years ending in 1999 in Table 7, which compares interest rates with growth rates in Average Weekly Earnings. Likewise, one cannot find net discount rates larger than 5.7 percent ( for a period 18 years in Table 7 comparing the Corporate Aaa rate with the Average Weekly Earnings average growth rate). While 1.1 percent to 5.7 percent provides a fairly wide range, this author has seen net discount rates used in practice that are both smaller and larger than those values. The tables provided in this paper allow such rates to be easily discredited, regardless of arguments for and against particular discount rates and particular growth rates.

#### **Explanations of Tables 1-8**

Table 1 provides annual data for the 91 Day U.S. Treasury Bill Rate, the Three Year U.S. Treasury Note rate, the 10 Year U.S. Treasury Bond rate, the 30 Year U.S. Treasury Bond rate (after 1980), the Corporate Aaa Bond rate, and the Municipal Aaa Bond Rate. The lowest of those rates is the 91 Day U.S. Treasury Bill rate and the highest is the Corporate Aaa rate. In Table 1, these annual rates are provided from 1953 to 1999 and compared on a side-by-side basis with annual rates in the CPI and the Medical CPI for that same period. The table begins with 1953 because that is the first year for which data on the 3-Year Treasury Note and the 10-Year Treasury Bond become available. Comparisons among all interest rates except the 30-year Treasury Bond rate and the CPI and MCPI are offered over a 47 year period. Footnotes to Table B-71, from which interest rate data were taken, indicate that data for the 91 Day U.S. Treasury Bill rate were reported in “bank discount” form. These data were converted to “effective yield” values for use in all calculations reported in this paper.

Table 2 uses the information reported in Table 1 to calculate arithmetic averages for the 47 possible periods ending in 1999. Technically, those averages should have been calculated geometrically, but to do so would have entailed calculating 46 different ending values for \$1 for each starting year prior to 1999. This writer made such calculations for 5, 10, 15 and 20 year periods and found only tiny differences between geometric and arithmetic averages. On that basis, arithmetic averages, which involve much less data entry into spreadsheet programs, were used in the preparation of Table 2. In Table 2, the starting points begin with the most recent past and work back to a 47 year average that includes all data for each variable in the table. In other words, the last entry, for a 47 year average, is an entry for the average of 47 years of data, starting in 1953 and ending in 1999. Table 2 allows a side-by-side comparison of averages for

each interest rate over comparable periods of time.

Table 3 refers to the comparison of the specified interest rates with the growth rate in the CPI. It does so by calculating non-lagged estimates of the real interest rate. By definition, the real interest rate equals the nominal interest rate minus the expected rate of inflation, not the actual rate of inflation. As such, even a geometric subtraction of the actual rate of inflation from the nominal interest rate does not capture differences between expected and actual rates of inflation. Expectations tend to be formed from past experience in such a way that the expected rate of inflation is often a function of past rates of inflation, not current rates of inflation. Attempts to capture this effect usually involve using some sort of lagged inflation series, such that rates of inflation are compared with interest rates several periods later. That has not been done with any of the calculations performed in this paper.

Any impact of using non lagged calculations tends to be washed out in long term comparisons. If, for example, it is assumed that expectations tend to be formed on the basis of a two year lag, it would follow that the interest rates during first two years in an average might have values distorted by the difference between expected and actual values. However, all of the other years would contain the relevant lagged information from rates in the two years preceding an interest rate. For longer periods, the distortion this would produce is quite minor. It is only when the averages approach the present that non-use of lagged calculations would result in serious distortions of the overall average being calculated. For a three year period, for example, the relationship between inflation rates and the discount rate would be distorted in the first two years, but not the third. If there were important differences between expected and actual rates in those two years, the distortion of a three year rate would be significant. Sack [2000] proposes a

method by which a measure of the expected rate of inflation can be derived from a comparison of the yields of a Treasury inflation-indexed security and a portfolio of STRIPS that has similar liquidity and duration as the indexed security. The reliability of such measures is still a matter of opinion.

Subject to that limitation, real rates in Table 3 were calculated by the formula

$$r = (1+i)/(1+e) - 1$$

where  $r$  = the real interest rate,  $i$  = the average nominal interest rate, and  $e$  = the average rate of inflation. Applying that formula to each of the average interest rates and paired average rates of inflation in the CPI produced 47 estimates of the real interest rate for each of the interest rates for which data was presented. For example, the real interest rate for a 10 year period ending in 1999 would be 2.04 percent based on the 91 Day U.S. Treasury Bill rate, 2.91 percent based on the 3 Year U.S. Treasury Note rate, and 3.55 percent based on the 10 Year Treasury Bond rate. The last column in Table 3 provides a comparison of the CPI with the MCPI for that period. The entry for 10 years is 2.25 percent, which indicates that the MCPI grew 2.25 percent faster than the CPI over that ten year period. This is a result that is interesting in itself, but which is not a focus of the current paper.

Table 4 looks directly at the MCPI and calculates net discount rates to make comparisons between the MCPI with the interest rates considered in the paper. The only difference in the formula indicated above is that  $e$  = the rate of change in the MCPI for the period instead of the CPI. The obvious difference in values is that net geometric differences based on the MCPI are much smaller than net geometric differences based on the CPI. In comparisons with the 91 Day U.S. Treasury Bill rate, a majority of the entries indicate growth rates in the MCPI greater than

the discount rate, resulting in small negative net discount (“more than offset”) rates for most periods 9 to 15 years in the past and for periods 25 years or more in the past.<sup>1</sup> Negative net discount rates also appear in the Municipal Aaa column also occur for 25 years or more in the past. In Table 4, the CPI column indicates that, for a ten year period, the CPI increased at a rate 2.20 percent slower than the MCPI. This is consistent with the fact that the MCPI increased 2.25 percent faster than the CPI for the same period because of differences in the basis of comparison.

The results shown in Table 4 are consistent with general impressions most forensic economists have about growth rates in the MCPI. However, it is interesting that one has to go back 32 years to find a “more than offset” net discount rate of more than 0.25 percent, even using the 91 Day Treasury Bill rate. It may also be surprising to some forensic economists that the largest “more than offset” rate based on comparisons of interest rates with rates of change in the MCPI is for the period of 47 years, and that the negative net rate still has a value of only 0.46 percent. Using any other interest rate than the U.S. Treasury Bill rate and a period of less than 24 years results in a normal net discount rate, albeit one that is much smaller than the real interest rate.

Table 5 repeats all of the same interest rate information that was provided in Table 1 in conjunction with growth rates for the CPI and MCPI, but this time side by side with growth rates in earnings instead of growth rates in price indexes. The comparisons in Table 5 are with average weekly earnings and the total compensation series in the Employer Cost Index. Years before 1959 are cut off because 1959 is the first year in Table B-45 for which any earnings growth rates are available. Starting in 1959, data was provided for the growth rate in Average Weekly Earnings of all American Workers. This means that only 41 years of data comparisons are possible using



that Table B-45. Data for the ECI total compensation series start in 1980, as reported in Table B-46, and thus comparisons of interest rates with the ECI are confined to 20 years of data comparisons. In other respects, Table 5 serves as the parallel to Table 1, with Tables 5-7 serving roles that parallel Tables 2-4.

Table 6 parallels Table 2 in calculating 41 average growth rates for the 41 possible starting points ending in 1999. For the ECI, there are only 20 possible average growth rates for the 20 possible starting points ending in 1999. Tables 7 and 8 parallel Tables 3 and 4 in calculating net discount rates based on the 41 possible comparisons with average growth rates in the Average Weekly Earnings series and the 20 possible comparisons with average growth rates in the ECI. The formula used to calculate net discount rates is a modified form of the formula used to calculate the real interest rate and the net medical discount rate,

$$\text{NDR} = (1+i)/(1+g) - 1.$$

In this formulation, NDR is the net discount rate,  $i$  is the nominal interest rate used as a gross discount rate and  $g$  is the growth rate in the earnings series for a comparable period. Again, no lagged calculations were made.

### **Ways to Use the Tables**

While Tables 1, 2, 5 and 6 provide useful summaries of basic information, Tables 3, 4, 7 and 8 are the tables most likely to be of use to practicing forensic economists, particularly when working for defendants. Many reports by purported economic experts make a variety of claims about historical information. In fact, the original motive for the construction of these tables was to have an all purpose data source for countering false or misleading claims about historical information that this writer has sometimes found in reports of economic experts for plaintiffs.

The essential constraint for all calculations in Tables 1-8 is that all comparisons end with the year 1999. These tables will be updated each year, as new information is published. Because the *Economic Report of the President: 2001* was issued in January, 2001, it did not have year end figures for the year 2000. However, it is likely that the *Economic Report of the President: 2002* will add year end information for both 2000 and 2001. Tables 1-8 will be updated at that time. In some supposedly “expert” reports, statements about historical comparisons between interest rates and growth rates are made that are demonstrably false. In other reports, statements are made about periods that have arbitrary starting and ending points. With the tables provided in this paper, one cannot determine whether or not such claims are accurate for the arbitrary periods selected. However, one can easily show that what is being claimed for those arbitrarily selected periods is not true for periods that end with the present. That is likely to be just as effective in debunking irrelevant historical claims.

Tables 3 and 4 can also be used to make important points about real discount rates and the relative growth rate of the MCPI. Table 3 provides a number of different estimates of the real interest rate, which some forensic economists persist in claiming to be in the 1 to 2 percent range. There is no support for such claims except when using 91 Day Treasury Bill rate or the Municipal Aaa rate and based on periods of 25 years or longer. The real rates shown in Table 3 are reasonably consistent with current reported rates for inflation-indexed bonds of equal maturities. Occasionally claims are encountered with respect to life care plan assessments that the MCPI has outstripped the discount rate by up to 2 percent per year. The first problem with that claim is that many elements of life care plans, particularly attendant care, are not medical expenditures. However, irrespective of that problem, Table 4 provides no justification for claims that medical

costs surpass the discount rate by more than a half of a percent. To get close to a half of a percent, one must use the 91 Day Treasury Bill rate or the Municipal Aaa rate for periods of more than 40 years.

It may be that Tables 7 and 8 provide the most useful information, but they must be used with some caution. Many extravagant claims about historical data are made by persons who do not take the trouble to consider age-earnings effects. This writer regularly sees reports by purveyors of “total offset” and “more than offset” net discount rates. These reports are never age-earnings adjusted, but are based either on mysterious claims about historical periods or on the impossibility of using any particular net discount rate because it will be wrong some of the time. (The structure of this argument is that because any net rates will be wrong some of the time, one should use a total offset between wage growth and discount rates. This is, of course, tantamount to arguing that because any net rate will be wrong some of the time, one should use a zero net rate that is always wrong--and always wrong in favor of plaintiffs.) However, in the typical age-earnings cycle, there are periods when earnings do grow faster than discount rates. This is typically true of workers in their twenties. Net discount rates are inherently limited to uses with average rates of earnings increases because they are comparisons of averages for all workers with interest rates.

Younger workers will have rates of increase faster than discount rates, but they will have rates much further below discount rates later in life. As a result, net rates of the sort found in Tables 7 and 8 should not be used together with age-earnings adjusted figures without careful adjustment for deviations from the average at all age groups. On this issue, see Christensen [1999]. Nevertheless, age-earnings effects, as shown by Christensen, do not change the general

conclusions about overall net discount rates indicated in Tables 7 and 8.

### **Endnote**

1. The term “offset” has several uses in forensic economic practice. One use relates to mitigation of lost earnings, in which the “offset” is earnings possible after an injury, which are subtracted from earnings expected before an injury to determine actual loss. Another use relates to offsets in life care plans, where the cost of a passenger automobile may be treated as an “offset” to the cost of a van needed after an injury. In the context of net discount rates, however, “total offset” implies that the rate of earnings or price growth exactly equals and therefore “offsets” the discount rate. In this context, “more than offset” implies that the rate of earnings or price growth exceeds the discount rate. A “more than offset” net discount rate is probably more accurately described as a “negative net discount rate,” implying that the growth rate in earnings or prices is greater than the discount rate.

Table 1--Annual Values for Selected Interest Rates and Growth Rates in the Consumer Price Index and the Medical CPI from 1953-1999

Year	3-month	3-year	10-year	30 year	Corp Aaa	Muni Aaa	CPI% Incr.	Med CPI% Inc
1953	1.982	2.47	2.85	n.a.	3.20	2.72	0.7	3.6
1954	0.972	1.63	2.40	n.a.	2.90	2.37	-0.7	2.9
1955	1.797	2.47	2.82	n.a.	3.06	2.53	0.4	2.2
1956	2.741	3.19	3.18	n.a.	3.36	2.93	3.0	3.8
1957	3.382	3.98	3.65	n.a.	3.89	3.60	2.9	4.2
1958	1.886	2.84	3.32	n.a.	3.79	3.56	1.8	4.6
1959	3.528	4.46	4.33	n.a.	4.38	3.95	0.7	4.4
1960	3.025	3.98	4.12	n.a.	4.41	3.73	1.7	4.3
1961	2.448	3.54	3.88	n.a.	4.35	3.73	1.0	3.6
1962	2.867	3.47	3.88	n.a.	4.33	3.18	1.0	3.5
1963	3.266	3.67	4.00	n.a.	4.26	3.23	1.3	2.9
1964	3.681	4.03	4.19	n.a.	4.40	3.22	1.3	2.3
1965	4.111	4.22	4.28	n.a.	4.49	3.27	1.6	3.2
1966	5.106	5.23	4.92	n.a.	5.13	3.82	2.9	5.3
1967	4.504	5.03	5.07	n.a.	5.51	3.98	3.1	8.8
1968	5.601	5.68	5.65	n.a.	6.18	6.94	4.2	7.3
1969	7.066	7.02	6.67	n.a.	7.03	5.81	5.5	8.2
1970	6.825	7.29	7.35	n.a.	8.04	6.51	5.7	7.0
1971	4.533	5.65	6.16	n.a.	7.39	5.70	4.4	7.4
1972	4.236	5.72	6.21	n.a.	7.21	5.27	3.2	3.5
1973	7.469	6.95	6.84	n.a.	7.44	5.18	6.2	4.5
1974	8.411	7.82	7.56	n.a.	8.57	6.09	11.0	10.4
1975	6.145	7.49	7.99	n.a.	8.83	6.89	9.1	12.6
1976	5.222	6.77	7.61	n.a.	8.43	6.49	5.8	10.1
1977	5.521	6.69	7.42	7.75	8.02	5.56	6.5	9.6
1978	7.669	8.29	8.41	8.49	8.73	5.90	7.6	8.4
1979	10.862	9.71	9.44	9.28	9.63	6.39	11.3	9.2
1980	12.568	11.55	11.46	11.29	11.94	8.51	13.5	11.0
1981	15.583	14.44	13.91	13.45	14.17	11.23	10.3	10.7
1982	11.609	12.92	13.00	12.76	13.79	11.57	6.2	11.6
1983	9.250	10.45	11.10	11.18	12.04	9.47	3.2	8.8
1984	10.332	11.89	12.44	12.41	12.71	10.15	4.3	6.2
1985	7.957	9.64	10.62	10.79	11.37	9.18	3.6	6.3
1986	6.300	7.06	7.68	7.78	9.02	7.38	1.9	7.5
1987	6.125	7.68	7.68	8.39	9.38	7.73	3.6	6.6
1988	7.080	8.26	8.85	8.96	9.71	7.76	4.1	6.5
1989	8.674	8.55	8.49	8.45	9.26	7.24	4.8	7.7
1990	7.991	8.26	8.55	8.61	9.32	7.25	5.4	9.0
1991	5.689	6.82	7.85	8.14	8.77	6.89	4.2	8.7
1992	3.576	5.30	7.01	7.67	8.14	6.41	3.0	7.4
1993	3.121	4.44	5.87	6.59	7.22	5.63	3.0	5.9
1994	4.470	6.27	7.09	7.37	7.96	6.19	2.6	4.8
1995	5.787	6.25	6.57	6.88	7.59	5.95	2.8	4.5
1996	5.256	5.99	6.44	6.71	7.37	5.75	3.0	3.5
1997	5.310	6.10	6.35	7.27	7.87	5.55	2.3	2.8
1998	5.029	5.14	5.26	5.58	6.53	5.12	1.6	3.2
1999	4.868	5.49	5.65	5.87	7.04	5.43	2.2	3.5

Interest rates are taken from Table B-71 of the Economic Report of the President: 2000. Percentage increases in the CPI and the MCPI are taken from Table B-62. The Treasury Bill rate is converted from "bank discount" to "effective yield."

Table 2--Average Values for Selected Interest Rates and Growth Rates in the Consumer Price Index and the Medical CPI for the Number of Years Shown through 1999 as an ending year.

Ends in 1999	3-month	3-year	10-year	30 year	Corp Aaa	Muni Aaa	CPI Incr.	Med CPI
1 Year Ave	4.87	5.49	5.65	5.87	7.04	5.43	2.20	3.50
2 Year Ave	4.95	5.32	5.46	5.72	6.78	5.28	1.90	3.35
3 Year Ave	5.07	5.58	5.75	6.24	7.15	5.37	2.03	3.17
4 Year Ave	5.12	5.68	5.92	6.36	7.20	5.46	2.28	3.25
5 Year Ave	5.25	5.79	6.05	6.46	7.28	5.56	2.38	3.50
6 Year Ave	5.12	5.87	6.23	6.61	7.39	5.66	2.42	3.72
7 Year Ave	4.83	5.67	6.18	6.61	7.37	5.66	2.50	4.03
8 Year Ave	4.68	5.62	6.28	6.74	7.46	5.75	2.56	4.45
9 Year Ave	4.79	5.76	6.45	6.90	7.61	5.88	2.74	4.92
10 Year Ave	5.11	6.01	6.66	7.07	7.78	6.02	3.01	5.33
11 Year Ave	5.43	6.24	6.83	7.19	7.92	6.13	3.17	5.55
12 Year Ave	5.57	6.41	7.00	7.34	8.07	6.26	3.25	5.62
13 Year Ave	5.61	6.50	7.05	7.42	8.17	6.38	3.28	5.70
14 Year Ave	5.66	6.54	7.10	7.45	8.23	6.45	3.18	5.83
15 Year Ave.	5.82	6.75	7.33	7.67	8.44	6.63	3.21	5.86
16 Year Ave.	6.10	7.07	7.65	7.97	8.70	6.85	3.28	5.88
17 Year Ave.	6.28	7.27	7.85	8.16	8.90	7.00	3.27	6.05
18 Year Ave.	6.58	7.58	8.14	8.41	9.17	7.26	3.43	6.36
19 Year Ave.	7.05	7.94	8.44	8.68	9.43	7.47	3.79	6.59
20 Year Ave	7.33	8.12	8.59	8.81	9.56	7.52	4.28	6.81
21 Year Ave	7.50	8.20	8.63	8.83	9.56	7.47	4.61	6.92
22 Year Ave	7.50	8.20	8.62	8.81	9.53	7.39	4.75	6.99
23 Year Ave	7.42	8.14	8.57	8.77	9.46	7.31	4.83	7.10
24 Year Ave	7.33	8.08	8.53	n.a.	9.42	7.28	4.87	7.23
25 Year Ave	7.28	8.06	8.51	n.a.	9.39	7.26	5.04	7.44
26 Year Ave	7.32	8.05	8.47	n.a.	9.36	7.22	5.27	7.56
27 Year Ave	7.33	8.01	8.41	n.a.	9.29	7.14	5.30	7.44
28 Year Ave	7.22	7.93	8.33	n.a.	9.22	7.08	5.22	7.30
29 Year Ave	7.13	7.85	8.26	n.a.	9.15	7.03	5.20	7.31
30 Year Ave	7.12	7.83	8.23	n.a.	9.12	7.01	5.21	7.30
31 Year Ave	7.11	7.80	8.18	n.a.	9.05	6.97	5.22	7.33
32 Year Ave	7.07	7.74	8.10	n.a.	8.96	6.97	5.19	7.32
33 Year Ave	6.99	7.65	8.01	n.a.	8.85	6.88	5.13	7.37
34 Year Ave	6.93	7.58	7.92	n.a.	8.75	6.79	5.06	7.31
35 Year Ave	6.85	7.49	7.81	n.a.	8.62	6.69	4.96	7.19
36 Year Ave	6.76	7.39	7.71	n.a.	8.51	6.59	4.86	7.06
37 Year Ave	6.67	7.29	7.61	n.a.	8.39	6.50	4.76	6.94
38 Year Ave	6.57	7.19	7.51	n.a.	8.28	6.42	4.67	6.85
39 Year Ave	6.46	7.10	7.42	n.a.	8.18	6.35	4.57	6.77
40 Year Ave	6.38	7.02	7.34	n.a.	8.09	6.28	4.50	6.71
41 Year Ave	6.31	6.96	7.26	n.a.	8.00	6.23	4.41	6.65
42 Year Ave	6.20	6.86	7.17	n.a.	7.90	6.16	4.35	6.60
43 Year Ave	6.14	6.79	7.09	n.a.	7.81	6.10	4.31	6.55
44 Year Ave	6.06	6.71	7.00	n.a.	7.70	6.03	4.28	6.48
45 Year Ave	5.97	6.62	6.91	n.a.	7.60	5.95	4.20	6.39
46 Year Ave	5.86	6.51	6.81	n.a.	7.50	5.87	4.09	6.31
47 Year Ave	5.77	6.42	6.72	n.a.	7.41	5.81	4.02	6.26

“3 Month” refers to the 91 Day U.S. Treasury Bill, “3 Year” refers to a constant maturity U.S. Treasury three year note, “10 Year” refers to a 10 Year U.S. Treasury Bond, “30 Year” refers to a constant maturity U.S. Treasury thirty year bond, “Corp Aaa” refers to the Corporate Aaa Rate, “Muni Aaa” refers to the Municipal Aaa Rate, “CPI” refers to the Consumer Price Index, and “Med CPI” refers to the medical component of the CPI.

Table 3--Real Interest Rates Calculated from Selected Interest Rates Combined with Growth Rates in the Consumer Price Index through Periods with 1999 as an Ending Year.

Ends in 1999	3-month	3-year	10-year	30 year	Corp Aaa	Muni Aaa	Med CPI
1 Year RDR	2.61	3.22	3.38	3.59	4.74	3.16	1.27
2 Year RDR	2.99	3.35	3.49	3.75	4.79	3.31	1.42
3 Year RDR	2.98	3.48	3.65	4.13	5.01	3.27	1.11
4 Year RDR	2.77	3.32	3.56	3.99	4.81	3.11	0.95
5 Year RDR	2.80	3.33	3.59	3.99	4.79	3.11	1.09
6 Year RDR	2.64	3.37	3.72	4.09	4.86	3.17	1.27
7 Year RDR	2.28	3.09	3.59	4.01	4.75	3.08	1.49
8 Year RDR	2.06	2.99	3.63	4.08	4.78	3.11	1.84
9 Year RDR	1.99	2.94	3.62	4.05	4.74	3.06	2.12
10 Year RDR	2.04	2.91	3.55	3.94	4.63	2.92	2.25
11 Year RDR	2.19	2.97	3.55	3.90	4.60	2.87	2.30
12 Year RDR	2.25	3.06	3.63	3.96	4.66	2.92	2.30
13 Year RDR	2.26	3.12	3.65	4.01	4.73	3.00	2.34
14 Year RDR	2.41	3.26	3.80	4.14	4.89	3.17	2.57
15 Year RDR	2.52	3.43	3.99	4.32	5.06	3.31	2.57
16 Year RDR	2.73	3.67	4.23	4.54	5.25	3.46	2.52
17 Year RDR	2.92	3.87	4.44	4.73	5.45	3.62	2.69
18 Year RDR	3.04	4.02	4.55	4.82	5.55	3.70	2.83
19 Year RDR	3.14	4.00	4.48	4.71	5.44	3.54	2.70
20 Year RDR	2.92	3.69	4.14	4.34	5.06	3.11	2.43
21 Year RDR	2.76	3.43	3.85	4.03	4.74	2.73	2.21
22 Year RDR	2.63	3.30	3.70	3.88	4.56	2.52	2.14
23 Year RDR	2.47	3.16	3.57	3.76	4.42	2.37	2.17
24 Year RDR	2.34	3.06	3.49	n.a.	4.34	2.30	2.25
25 Year RDR	2.13	2.87	3.30	n.a.	4.14	2.12	2.29
26 Year RDR	1.95	2.64	3.04	n.a.	3.89	1.85	2.17
27 Year RDR	1.93	2.57	2.96	n.a.	3.79	1.75	2.04
28 Year RDR	1.89	2.56	2.95	n.a.	3.79	1.76	1.97
29 Year RDR	1.83	2.52	2.91	n.a.	3.76	1.74	2.00
30 Year RDR	1.81	2.49	2.87	n.a.	3.71	1.71	1.98
31 Year RDR	1.80	2.46	2.81	n.a.	3.64	1.67	2.00
32 Year RDR	1.78	2.42	2.77	n.a.	3.58	1.69	2.03
33 Year RDR	1.77	2.40	2.74	n.a.	3.54	1.67	2.13
34 Year RDR	1.78	2.40	2.72	n.a.	3.51	1.65	2.14
35 Year RDR	1.80	2.41	2.72	n.a.	3.49	1.65	2.13
36 Year RDR	1.82	2.41	2.72	n.a.	3.48	1.65	2.09
37 Year RDR	1.82	2.42	2.72	n.a.	3.47	1.66	2.08
38 Year RDR	1.82	2.41	2.72	n.a.	3.45	1.67	2.09
39 Year RDR	1.81	2.42	2.73	n.a.	3.46	1.70	2.10
40 Year RDR	1.80	2.41	2.72	n.a.	3.43	1.71	2.11
41 Year RDR	1.82	2.44	2.73	n.a.	3.44	1.74	2.15
42 Year RDR	1.78	2.40	2.70	n.a.	3.40	1.74	2.16
43 Year RDR	1.75	2.38	2.66	n.a.	3.35	1.72	2.14
44 Year RDR	1.71	2.33	2.61	n.a.	3.28	1.68	2.11
45 Year RDR	1.69	2.32	2.60	n.a.	3.26	1.68	2.10
46 Year RDR	1.70	2.32	2.61	n.a.	3.28	1.71	2.14
47 Year RDR	1.69	2.31	2.60	n.a.	3.26	1.72	2.15

"RDR" stands for "real discount rate," which is synonymous with "real interest rate."

Table 4--Net Medical Discount Rates Calculated from Selected Combined with Growth Rates in the Medical CPI through Periods with 1999 as an Ending Year.

Ends in 1999	3-month	3-year	10-year	30 year	Corp Aaa	Muni Aaa	CPI Incr.
1 Year MDR	1.32	1.92	2.08	2.29	3.42	1.86	-1.26
2 Year MDR	1.55	1.90	2.04	2.30	3.32	1.86	-1.40
3 Year MDR	1.84	2.33	2.50	2.98	3.85	2.13	-1.10
4 Year MDR	1.81	2.35	2.59	3.01	3.83	2.14	-0.94
5 Year MDR	1.69	2.22	2.47	2.86	3.65	1.99	-1.08
6 Year MDR	1.35	2.08	2.42	2.79	3.54	1.88	-1.26
7 Year MDR	0.77	1.58	2.06	2.48	3.21	1.57	-1.47
8 Year MDR	0.22	1.12	1.75	2.19	2.89	1.25	-1.81
9 Year MDR	-0.12	0.80	1.46	1.89	2.56	0.91	-2.07
10 Year MDR	-0.21	0.64	1.27	1.65	2.33	0.65	-2.20
11 Year MDR	-0.11	0.65	1.21	1.56	2.24	0.55	-2.25
12 Year MDR	-0.06	0.73	1.30	1.62	2.31	0.60	-2.25
13 Year MDR	-0.08	0.76	1.28	1.63	2.33	0.64	-2.29
14 Year MDR	-0.16	0.67	1.20	1.53	2.27	0.58	-2.51
15 Year MDR	-0.04	0.84	1.39	1.71	2.43	0.73	-2.51
16 Year MDR	0.21	1.13	1.67	1.97	2.67	0.92	-2.46
17 Year MDR	0.22	1.15	1.70	1.99	2.69	0.90	-2.62
18 Year MDR	0.21	1.15	1.67	1.93	2.64	0.84	-2.75
19 Year MDR	0.43	1.27	1.74	1.96	2.67	0.82	-2.62
20 Year MDR	0.49	1.23	1.67	1.87	2.57	0.66	-2.37
21 Year MDR	0.54	1.20	1.60	1.79	2.47	0.51	-2.16
22 Year MDR	0.48	1.14	1.53	1.71	2.37	0.38	-2.09
23 Year MDR	0.30	0.97	1.37	1.56	2.20	0.20	-2.12
24 Year MDR	0.09	0.79	1.21	n.a.	2.04	0.05	-2.20
25 Year MDR	-0.15	0.58	1.00	n.a.	1.82	-0.16	-2.24
26 Year MDR	-0.22	0.45	0.85	n.a.	1.68	-0.32	-2.13
27 Year MDR	-0.10	0.53	0.91	n.a.	1.72	-0.28	-1.99
28 Year MDR	-0.08	0.58	0.96	n.a.	1.79	-0.21	-1.93
29 Year MDR	-0.17	0.50	0.88	n.a.	1.72	-0.26	-1.97
30 Year MDR	-0.17	0.49	0.87	n.a.	1.69	-0.27	-1.94
31 Year MDR	-0.20	0.44	0.79	n.a.	1.60	-0.33	-1.96
32 Year MDR	-0.25	0.38	0.72	n.a.	1.52	-0.33	-1.99
33 Year MDR	-0.36	0.27	0.59	n.a.	1.38	-0.45	-2.09
34 Year MDR	-0.35	0.25	0.57	n.a.	1.34	-0.48	-2.10
35 Year MDR	-0.31	0.28	0.58	n.a.	1.34	-0.47	-2.08
36 Year MDR	-0.28	0.31	0.61	n.a.	1.35	-0.43	-2.05
37 Year MDR	-0.25	0.33	0.63	n.a.	1.36	-0.41	-2.03
38 Year MDR	-0.26	0.32	0.62	n.a.	1.34	-0.41	-2.04
39 Year MDR	-0.29	0.31	0.61	n.a.	1.32	-0.40	-2.06
40 Year MDR	-0.31	0.29	0.59	n.a.	1.29	-0.40	-2.07
41 Year MDR	-0.32	0.29	0.58	n.a.	1.26	-0.40	-2.10
42 Year MDR	-0.37	0.24	0.54	n.a.	1.22	-0.41	-2.12
43 Year MDR	-0.39	0.23	0.51	n.a.	1.18	-0.42	-2.10
44 Year MDR	-0.39	0.22	0.49	n.a.	1.15	-0.42	-2.06
45 Year MDR	-0.40	0.21	0.49	n.a.	1.14	-0.41	-2.06
46 Year MDR	-0.43	0.19	0.47	n.a.	1.12	-0.41	-2.09
47 Year MDR	-0.46	0.15	0.44	n.a.	1.08	-0.43	-2.11

“MDR” refers to the net discount rate based on the medical component of the CPI.



Table 5--Annual Values for Selected Interest Rates Combined with Growth Rates for Average Weekly Earnings and the Total Compensation Series of the Employer Cost Index

Year	3-month	3-year	10-year	30 year	Corp Aaa	Muni Aaa	Ave Weekly%	ECI %
1959	3.528	4.46	4.33	n.a	4.38	3.95	4.9	n.a
1960	3.025	3.98	4.12	n.a	4.41	3.73	2.4	n.a
1961	2.448	3.54	3.88	n.a	4.35	3.73	2.4	n.a
1962	2.867	3.47	3.88	n.a	4.33	3.18	4.0	n.a
1963	3.266	3.67	4.00	n.a	4.26	3.23	3.0	n.a
1964	3.681	4.03	4.19	n.a	4.40	3.22	3.2	n.a
1965	4.111	4.22	4.28	n.a	4.49	3.27	4.5	n.a
1966	5.106	5.23	4.92	n.a	5.13	3.82	3.5	n.a
1967	4.504	5.03	5.07	n.a	5.51	3.98	3.1	n.a
1968	5.601	5.68	5.65	n.a	6.18	6.94	5.8	n.a
1969	7.066	7.02	6.67	n.a	7.03	5.81	6.4	n.a
1970	6.825	7.29	7.35	n.a	8.04	6.51	4.6	n.a
1971	4.533	5.65	6.16	n.a	7.39	5.70	6.2	n.a
1972	4.236	5.72	6.21	n.a	7.21	5.27	7.5	n.a
1973	7.469	6.95	6.84	n.a	7.44	5.18	6.2	n.a
1974	8.411	7.82	7.56	n.a	8.57	6.09	6.4	n.a
1975	6.145	7.49	7.99	n.a	8.83	6.89	5.7	n.a
1976	5.222	6.77	7.61	n.a	8.43	6.49	7.3	n.a
1977	5.521	6.69	7.42	7.75	8.02	5.56	7.7	n.a
1978	7.669	8.29	8.41	8.49	8.73	5.90	7.8	n.a
1979	10.862	9.71	9.44	9.28	9.63	6.39	8.0	n.a
1980	12.568	11.55	11.46	11.29	11.94	8.51	6.9	9.6
1981	15.583	14.44	13.91	13.45	14.17	11.23	8.5	9.9
1982	11.609	12.92	13.00	12.76	13.79	11.57	4.7	6.5
1983	9.250	10.45	11.10	11.18	12.04	9.47	5.0	5.7
1984	10.332	11.89	12.44	12.41	12.71	10.15	4.3	4.9
1985	7.957	9.64	10.62	10.79	11.37	9.18	2.1	3.9
1986	6.300	7.06	7.68	7.78	9.02	7.38	1.9	3.2
1987	6.125	7.68	7.68	8.39	9.38	7.73	2.5	3.3
1988	7.080	8.26	8.85	8.96	9.71	7.76	3.0	4.8
1989	8.674	8.55	8.49	8.45	9.26	7.24	3.8	4.8
1990	7.991	8.26	8.55	8.61	9.32	7.25	3.3	4.6
1991	5.689	6.82	7.85	8.14	8.77	6.89	2.5	4.4
1992	3.576	5.30	7.01	7.67	8.14	6.41	2.7	3.5
1993	3.121	4.44	5.87	6.59	7.22	5.63	2.8	3.6
1994	4.470	6.27	7.09	7.37	7.96	6.19	3.3	3.1
1995	5.787	6.25	6.57	6.88	7.59	5.95	2.2	2.6
1996	5.256	5.99	6.44	6.71	7.37	5.75	3.1	3.1
1997	5.310	6.10	6.35	7.27	7.87	5.55	4.5	3.4
1998	5.029	5.14	5.26	5.58	6.53	5.12	4.0	3.8
1999	4.868	5.49	5.65	5.87	7.04	5.43	3.3	3.3

"3 Month" refers to the 91 Day U.S. Treasury Bill, "3 Year" refers to a constant maturity U.S. Treasury three year note, "10 Year" refers to a 10 Year U.S. Treasury Bond, "30 Year" refers to a constant maturity U.S. Treasury thirty year bond, "Corp Aaa" refers to the Corporate Aaa Rate, "Muni Aaa" refers to the Municipal Aaa Rate, "Ave Weekly%" refers to annual growth rate in the Average Weekly Earnings Series, and "ECI %" refers to the growth rate in the total compensation series of the ECI. The Treasury Bill rate is converted from "bank discount" to "effective yield."

Table 6 --Average Values for Selected Interest Rates and Growth Rates in the Average Weekly Earnings and the Total Compensation Series in the Employer Cost Index for the Number of Years Shown as Ending in 1999

Ends in 1999	3-month	3-year	10-year	30 year	Corp Aaa	Muni Aaa	Ave Weekly%	ECI %
1 Year Ave	4.87	5.49	5.65	5.87	7.04	5.43	3.30	3.30
2 Year Ave	4.95	5.32	5.46	5.72	6.78	5.28	3.65	3.55
3 Year Ave	5.07	5.58	5.75	6.24	7.15	5.37	3.93	3.50
4 Year Ave	5.12	5.68	5.92	6.36	7.20	5.46	3.72	3.40
5 Year Ave	5.25	5.79	6.05	6.46	7.28	5.56	3.42	3.24
6 Year Ave	5.12	5.87	6.23	6.61	7.39	5.66	3.40	3.22
7 Year Ave	4.83	5.67	6.18	6.61	7.37	5.66	3.31	3.27
8 Year Ave	4.68	5.62	6.28	6.74	7.46	5.75	3.24	3.30
9 Year Ave	4.79	5.76	6.45	6.90	7.61	5.88	3.16	3.42
10 Year Ave	5.11	6.01	6.66	7.07	7.78	6.02	3.17	3.54
11 Year Ave	5.43	6.24	6.83	7.19	7.92	6.13	3.23	3.65
12 Year Ave	5.57	6.41	7.00	7.34	8.07	6.26	3.21	3.75
13 Year Ave	5.61	6.50	7.05	7.42	8.17	6.38	3.15	3.72
14 Year Ave	5.66	6.54	7.10	7.45	8.23	6.45	3.06	3.68
15 Year Ave	5.82	6.75	7.33	7.67	8.44	6.63	3.00	3.69
16 Year Ave	6.10	7.07	7.65	7.97	8.70	6.85	3.08	3.77
17 Year Ave	6.28	7.27	7.85	8.16	8.90	7.00	3.19	3.88
18 Year Ave	6.58	7.58	8.14	8.41	9.17	7.26	3.28	4.03
19 Year Ave	7.05	7.94	8.44	8.68	9.43	7.47	3.55	4.34
20 Year Ave	7.33	8.12	8.59	8.81	9.56	7.52	3.72	4.60
21 Year Ave	7.50	8.20	8.63	8.83	9.56	7.47	3.92	n.a.
22 Year Ave	7.50	8.20	8.62	8.81	9.53	7.39	4.10	n.a.
23 Year Ave	7.42	8.14	8.57	8.77	9.89	7.65	4.45	n.a.
24 Year Ave	7.33	8.08	8.53	n.a.	9.42	7.28	4.38	n.a.
25 Year Ave	7.28	8.06	8.51	n.a.	9.39	7.26	4.44	n.a.
26 Year Ave	7.32	8.05	8.47	n.a.	9.36	7.22	4.51	n.a.
27 Year Ave	7.33	8.01	8.41	n.a.	9.29	7.14	4.57	n.a.
28 Year Ave	7.22	7.93	8.33	n.a.	9.22	7.08	4.68	n.a.
29 Year Ave	7.13	7.85	8.26	n.a.	9.15	7.03	4.73	n.a.
30 Year Ave	7.12	7.83	8.23	n.a.	9.12	7.01	4.73	n.a.
31 Year Ave	7.11	7.80	8.18	n.a.	9.05	6.97	4.78	n.a.
32 Year Ave	7.07	7.74	8.10	n.a.	8.96	6.97	4.81	n.a.
33 Year Ave	6.99	7.65	8.01	n.a.	8.85	6.88	4.76	n.a.
34 Year Ave	6.93	7.58	7.92	n.a.	8.75	6.79	4.72	n.a.
35 Year Ave	6.85	7.49	7.81	n.a.	8.62	6.69	4.72	n.a.
36 Year Ave	6.76	7.39	7.71	n.a.	8.51	6.59	4.68	n.a.
37 Year Ave	6.67	7.29	7.61	n.a.	8.39	6.50	4.63	n.a.
38 Year Ave	6.57	7.19	7.51	n.a.	8.28	6.42	4.61	n.a.
39 Year Ave	6.46	7.10	7.42	n.a.	8.18	6.35	4.56	n.a.
40 Year Ave	6.38	7.02	7.34	n.a.	8.09	6.28	4.50	n.a.
41 Year Ave	6.31	6.96	7.26	n.a.	8.00	6.23	4.51	n.a.

Percentage increases in average weekly earnings are taken from Table B-47 and Employer Cost Index increases are taken from Table B-46.

Table 7--Net Discount Rates Based on Average Weekly Earnings of American Workers Compared with Selected Interest Rates from 1959 through 1999.

Ends in 1999	3-month	3-year	10-year	30 year	Corp Aaa	Muni Aaa	ECI%
1 Year NDR	1.52	2.12	2.27	2.49	3.62	2.06	0.00
2 Year NDR	1.25	1.61	1.74	2.00	3.02	1.57	-0.10
3 Year NDR	1.10	1.58	1.75	2.22	3.10	1.38	-0.41
4 Year NDR	1.34	1.88	2.12	2.53	3.35	1.67	-0.32
5 Year NDR	1.77	2.30	2.55	2.94	3.73	2.07	-0.17
6 Year NDR	1.66	2.39	2.73	3.11	3.86	2.19	-0.18
7 Year NDR	1.48	2.28	2.77	3.19	3.93	2.27	-0.04
8 Year NDR	1.39	2.31	2.94	3.39	4.09	2.43	0.06
9 Year NDR	1.58	2.52	3.19	3.62	4.31	2.64	0.25
10 YearNDR	1.88	2.75	3.39	3.78	4.47	2.76	0.36
11 Year NDR	2.13	2.91	3.49	3.84	4.54	2.81	0.41
12 Year NDR	2.29	3.10	3.67	4.00	4.70	2.96	0.52
13 Year NDR	2.39	3.25	3.78	4.14	4.86	3.13	0.55
14 Year NDR	2.53	3.38	3.92	4.26	5.01	3.29	0.60
15 Year NDR	2.73	3.64	4.20	4.53	5.28	3.52	0.67
16 Year NDR	2.93	3.87	4.43	4.74	5.46	3.66	0.67
17 Year NDR	3.00	3.95	4.52	4.81	5.53	3.70	0.67
18 Year NDR	3.19	4.17	4.70	4.97	5.70	3.85	0.72
19 Year NDR	3.38	4.24	4.72	4.95	5.68	3.78	0.76
20 Year NDR	3.48	4.25	4.70	4.91	5.63	3.66	0.85
21 Year NDR	3.44	4.12	4.54	4.72	5.43	3.41	n.a.
22 Year NDR	3.27	3.94	4.35	4.53	5.21	3.16	n.a.
23 Year NDR	2.84	3.53	3.95	4.13	5.21	3.06	n.a.
24 Year NDR	2.82	3.55	3.98	n.a.	4.83	2.78	n.a.
25 Year NDR	2.72	3.46	3.90	n.a.	4.74	2.70	n.a.
26 Year NDR	2.69	3.39	3.79	n.a.	4.64	2.59	n.a.
27 Year NDR	2.64	3.29	3.67	n.a.	4.51	2.46	n.a.
28 Year NDR	2.42	3.10	3.49	n.a.	4.33	2.29	n.a.
29 Year NDR	2.29	2.98	3.37	n.a.	4.22	2.20	n.a.
30 Year NDR	2.28	2.96	3.34	n.a.	4.19	2.18	n.a.
31 Year NDR	2.23	2.89	3.24	n.a.	4.07	2.09	n.a.
32 Year NDR	2.15	2.79	3.14	n.a.	3.96	2.06	n.a.
33 Year NDR	2.13	2.76	3.10	n.a.	3.91	2.03	n.a.
34 Year NDR	2.11	2.73	3.05	n.a.	3.84	1.98	n.a.
35 Year NDR	2.04	2.64	2.95	n.a.	3.73	1.88	n.a.
36 Year NDR	1.99	2.59	2.90	n.a.	3.66	1.83	n.a.
37 Year NDR	1.95	2.54	2.85	n.a.	3.60	1.79	n.a.
38 Year NDR	1.87	2.47	2.78	n.a.	3.51	1.73	n.a.
39 Year NDR	1.82	2.43	2.74	n.a.	3.47	1.71	n.a.
40 Year NDR	1.80	2.41	2.72	n.a.	3.43	1.71	n.a.
41 Year NDR	1.72	2.34	2.64	n.a.	3.34	1.64	n.a.

"NDR" refers to the Net Discount Rate based on rates of increase in Average Weekly Earnings of American Workers compared with various interest rates.

Table 8--Net Discount Rates Based on the Total Compensation Series of the Employer Cost Index Compared with Selected Interest Rates from 1980 through 1999.

Ends in 1999	3-month	3-year	10-year	30 year	Corp Aaa	Muni Aaa	Av. Wk. %
1 Year EDR	1.52	2.12	2.27	2.49	3.62	2.06	0.00
2 Year EDR	1.35	1.70	1.84	2.10	3.12	1.67	0.10
3 Year EDR	1.52	2.01	2.18	2.65	3.52	1.80	0.42
4 Year EDR	1.66	2.21	2.44	2.86	3.68	1.99	0.31
5 Year EDR	1.95	2.47	2.73	3.12	3.91	2.25	0.17
6 Year EDR	1.84	2.57	2.91	3.29	4.04	2.37	0.17
7 Year EDR	1.51	2.32	2.81	3.23	3.97	2.31	0.04
8 Year EDR	1.33	2.25	2.88	3.33	4.03	2.38	-0.06
9 Year EDR	1.32	2.26	2.93	3.36	4.05	2.38	-0.26
10 Year EDR	1.52	2.38	3.02	3.41	4.10	2.39	-0.36
11 Year EDR	1.72	2.50	3.07	3.42	4.12	2.39	-0.41
12 Year EDR	1.76	2.56	3.13	3.46	4.16	2.42	-0.52
13 Year EDR	1.83	2.68	3.21	3.57	4.29	2.56	-0.55
14 Year EDR	1.91	2.76	3.29	3.63	4.39	2.67	-0.59
15 Year EDR	2.05	2.95	3.51	3.84	4.58	2.84	-0.67
16 Year EDR	2.24	3.18	3.74	4.04	4.75	2.97	-0.66
17 Year EDR	2.31	3.26	3.82	4.12	4.83	3.01	-0.66
18 Year EDR	2.45	3.42	3.95	4.21	4.94	3.10	-0.72
19 Year EDR	2.60	3.45	3.93	4.16	4.88	3.00	-0.75
20 Year EDR	2.61	3.37	3.82	4.02	4.74	2.79	-0.84

"EDR" refers to the Net Discount Rate based on rates of increase in the Total Compensation series of the Employer Cost Index compared with various interest rates.

## References

- Brookshire, Michael L. and Frank Slesnick. 1999. A 1999 Survey Study of Forensic Economists--  
Their Methods and Their Estimates of Forecast Variables. *Litigation Economics Digest*.  
4(2):65-96.
- Christensen, Eric W. 1999. Accounting for Age Earnings Profiles in Net Discount Rates. *Journal  
of Forensic Economics*. 12(3):185-200.
- Council of Economic Advisors. 2000. *Economic Report of the President: 2000*. Government  
Printing Office.
- Sack, Brian. 2000. Deriving Inflation Expectations from Nominal and Inflation-Indexed Treasury  
Yields. Finance and Economics Discussion Series of the Federal Reserve System Board.  
This paper can be downloaded at  
<http://www.federalreserve.gov/pubs/feds/2000/200033/200033abs.htm>.