




**West Virginia
Public Employees Retirement System**

**Actuarial Valuation
As of July 1, 2006**

Prepared by:

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AN ACTUARIAL CONSULTING FIRM

for the

West Virginia Consolidated Public Retirement Board

December 2006

January 5, 2007

West Virginia Consolidated Public Retirement Board
Capitol Complex, Building 5, Room 1000
1900 Kanawha Boulevard, East
Charleston, WV 25305

Re: West Virginia Public Employees' Retirement System, Actuarial Valuation as of July 1, 2006

Retirement Board Members:

We respectfully present our report on the actuarial valuation of the West Virginia Public Employees' Retirement System as of July 1, 2006. This valuation presents the annual cost and related liabilities of the Plan as of the valuation date.

The valuation indicates that the expected state contributions of 10.5% of payroll plus the member contributions of 4.5% of payroll continues to be sufficient in meeting the annual funding requirement of the plan.

This report contains supporting data and background information pertaining to the development of costs and related liabilities of the Plan. The valuation is based on:

- membership data as of June 30, 2006 maintained by the West Virginia Consolidated Public Retirement Board
- financial information received from the West Virginia Investment Management Board and the external auditor's report.

This report presents fairly the actuarial position of the West Virginia Public Employees' Retirement System as of July 1, 2006 in accordance with generally accepted actuarial principles applied on a basis consistent with that of the preceding valuation. In our opinion, the assumptions used in preparing the liabilities and costs are individually reasonable in respect to PERS experience and represent our best estimate of anticipated experience under PERS.

Respectfully submitted,



Peter D. Verne
Principal and Consulting Actuary

PDV/de

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This report presents the results of the July 1, 2006 actuarial valuation of the West Virginia Public Employees' Retirement System. The development of the results, including for comparison purposes the previous year's results as of July 1, 2005, is presented in Table 1. The report includes disclosure information under GASB-25 and GASB-27. A summary of the plan features, a summary of the method, factors and assumptions and supplementary membership tables used in the valuation are also included.

Valuation Results

The West Virginia Public Employees' Retirement System (PERS) is a defined benefit plan providing unreduced monthly benefits to members upon retirement at age 60 after completing 5 years of service, or retirement on or after age 55 and meeting the rule of 80. The Plan also provides reduced early retirement benefits, benefits in the event of disability or death while active, and deferred benefits to members who terminate prior to retirement, providing Plan eligibility conditions are met.

The Plan is funded through employer contributions, currently at 10½% of payroll, and member contributions of 4½% of payroll. The major purpose of the valuation is to determine the adequacy of the expected contributions with respect to funding expected Plan liabilities.

The valuation indicates that current contribution levels exceed the calculated cost to fund the benefits accruing during the year (the normal cost) plus the amount required to amortize at a level dollar amount the Plan's primary unfunded liability originally established as of July 1, 2005 over a 29-year period (30 years from July 1, 2005), the amount required to amortize the liability for benefit improvements to actives under SB173 over a 10-year period from July 1, 2006, and the amount required to amortize the liability for retiree improvements under HB4846 over a 6-year period from July 1, 2006.

Comments on Valuation Results

Table 1 presents the development of the valuation results as of July 1, 2006 and, for comparison purposes, July 1, 2005. The calculated Employer cost is determined as the Employer's share of the normal cost (the cost to fund benefits accruing during the year), plus amortization of the unfunded actuarial liability segments over the specified periods.

Table 2a presents a projection of the primary unfunded actuarial accrued liability to June 30, 2035. The primary unfunded actuarial accrued liability at the valuation date is approximately \$559 million. This table illustrates the expected pattern of change in the unfunded liability over the remaining 29-year period. Table 2b presents a projection of the unfunded liability for benefit improvements to actives under SB173 to June 30, 2016. Table 2c presents a projection of the unfunded liability for retiree improvements under HB4846 to June 30, 2012.

Table 3 presents a cash flow projection of expected asset balances, contributions, disbursements and earnings over the period to FY2032.

Funding Progress

The measures of funding status used by accountants for both the State's and the Plan's financial statements are presented in Table 4, which contains information required under Governmental Accounting Standards Board Statement Numbers 25 and 27 (GASB-25 and GASB-27).

Plan asset information is presented in Tables 5 and 6.

Plan Membership

A summary of plan membership, with a comparison to the prior year, follows:

	<u>7/1/06</u>	<u>7/1/05</u>
Actives	35,689	36,230
Retirees & Beneficiaries	20,026	19,397
Terminated Vested	3,551	3,112
Terminated Nonvested	9,012	8,186
Total recognized in the valuation	<u>68,278</u>	<u>66,925</u>

Table 7 presents a reconciliation of plan membership over the year and Table 8 presents supplemental information on plan membership. Table 9a and 9b shows the number and total compensation for state and non-state active participants by five-year age and service groupings as of July 1, 2006. Table 10 shows the number and average monthly benefits of regular retirees and beneficiaries, and disabled retirees included in the valuation distributed by fifth age, while Table 11 shows a similar distribution for terminated participants entitled to deferred benefits.

Table 1
Development of Valuation Results and Comparison to Prior Year
(000 omitted)

	July 1, 2006	July 1, 2005
Membership		
Active	35,689	36,230
Inactive	32,589	30,695
Total	<u>68,278</u>	<u>66,925</u>
1. Present Value of Future Benefits		
a. Active	\$ 3,185,081	\$ 3,226,993
b. Inactive - Retirees	1,475,948	1,304,695
- Disabled Retirees	153,949	146,349
- Beneficiaries	190,020	177,093
- Vested Terminated	79,614	69,405
- Non-Vested Terminated	6,836	6,039
c. Total	<u>5,091,448</u>	<u>4,930,574</u>
2. Actuarial Accrued Liability	4,264,700	4,074,385
3. Assets (Market Value)	3,700,186	3,404,651
4. Unfunded Actuarial Accrued Liability (2) - (3)	564,514	669,734
a. Primary Unfunded	558,626	669,734
b. Improvements for actives per SB 173	141	0
c. Retirement increase per HB 4846	5,747	0
5. Annual Normal Cost Rate		
a. Present Value of Future Normal Cost (1c)-(2)	826,748	856,189
b. Present Value of Future Payroll	8,910,520	9,062,457
c. Normal Cost Rate as a % of Payroll (5a)/(5b)	9.28%	9.45%
d. Employee Contribution Rate	4.50%	4.50%
e. Employer Share of Normal Cost	4.78%	4.95%
f. Valuation Compensation FY 2007(2006)	1,159,715	1,162,098
6. Calculated Employer Cost FY 2007(2006)		
a. Amortization Payment on UAAL MOY ¹	46,065	54,694
b. Amortization Payment on SB 173 MOY ²	20	0
c. Amortization Payment on HB 4846 MOY ³	1,181	0
d. Employer Normal Cost MOY	57,476	59,642
e. Total Employer Cost MOY	<u>104,742</u>	<u>114,336</u>
f. Employer Cost as Percentage of Compensation	9.03%	9.84%
7. Expected Employer Contributions FY 2007(2006)		
a. Employer Contribution Rate	10.50%	10.50%
b. Employer Contribution	121,770	122,020

¹ FY 2007, amortization payment is over 29 years, 30 years from July 1, 2005

² FY 2007, amortization payment is over 10 years from July 1, 2006

³ FY 2007, amortization payment is over 6 years from July 1, 2006

Table 2a

Projection of Unfunded Accrued Liability and Annual Contributions
Primary Unfunded Liability Established July 1, 2005

Fiscal Year Ending 6/30	Unfunded Liability at Beg. of Year	Projected Total Payroll	Employer Contributions	
			% of Payroll	Amount
2007	558,626,000	1,159,715,000	3.97%	46,065,000
2008	552,762,000	1,217,701,000	3.78%	46,065,000
2009	546,458,000	1,278,586,000	3.60%	46,065,000
2010	539,681,000	1,342,515,000	3.43%	46,065,000
2011	532,396,000	1,409,641,000	3.27%	46,065,000
2012	524,564,000	1,480,123,000	3.11%	46,065,000
2013	516,145,000	1,554,129,000	2.96%	46,065,000
2014	507,095,000	1,631,835,000	2.82%	46,065,000
2015	497,366,000	1,713,427,000	2.69%	46,065,000
2016	486,907,000	1,799,099,000	2.56%	46,065,000
2017	475,664,000	1,889,054,000	2.44%	46,065,000
2018	463,577,000	1,983,506,000	2.32%	46,065,000
2019	450,584,000	2,082,682,000	2.21%	46,065,000
2020	436,617,000	2,186,816,000	2.11%	46,065,000
2021	421,602,000	2,296,156,000	2.01%	46,065,000
2022	405,461,000	2,410,964,000	1.91%	46,065,000
2023	388,110,000	2,531,512,000	1.82%	46,065,000
2024	369,457,000	2,658,088,000	1.73%	46,065,000
2025	349,405,000	2,790,992,000	1.65%	46,065,000
2026	327,849,000	2,930,542,000	1.57%	46,065,000
2027	304,676,000	3,077,069,000	1.50%	46,065,000
2028	279,766,000	3,230,923,000	1.43%	46,065,000
2029	252,987,000	3,392,469,000	1.36%	46,065,000
2030	224,200,000	3,562,092,000	1.29%	46,065,000
2031	193,253,000	3,740,197,000	1.23%	46,065,000
2032	159,986,000	3,927,207,000	1.17%	46,065,000
2033	124,224,000	4,123,567,000	1.12%	46,065,000
2034	85,780,000	4,329,745,000	1.06%	46,065,000
2035	44,452,000	4,546,233,000	1.01%	46,065,000

Table 2b

**Projection of Unfunded Accrued Liability and Annual Contributions
Liability for Improvements for actives per SB 173 Established July 1, 2006**

Fiscal Year Ending 6/30	Unfunded Liability at Beg. of Year	Projected Total Payroll	Employer Contributions	
			% of Payroll	Amount
2007	141,000	1,159,715,000	0.00%	20,000
2008	131,000	1,217,701,000	0.00%	20,000
2009	120,000	1,278,586,000	0.00%	20,000
2010	108,000	1,342,515,000	0.00%	20,000
2011	96,000	1,409,641,000	0.00%	20,000
2012	82,000	1,480,123,000	0.00%	20,000
2013	67,000	1,554,129,000	0.00%	20,000
2014	52,000	1,631,835,000	0.00%	20,000
2015	35,000	1,713,427,000	0.00%	20,000
2016	17,000	1,799,099,000	0.00%	20,000

Table 2c

**Projection of Unfunded Accrued Liability and Annual Contributions
Liability for Retirement increase per HB 4846 established July 1, 2006**

Fiscal Year Ending 6/30	Unfunded Liability at Beg. of Year	Projected Total Payroll	Employer Contributions	
			% of Payroll	Amount
2007	5,747,000	1,159,715,000	0.10%	1,181,000
2008	4,954,000	1,217,701,000	0.10%	1,181,000
2009	4,101,000	1,278,586,000	0.09%	1,181,000
2010	3,184,000	1,342,515,000	0.09%	1,181,000
2011	2,198,000	1,409,641,000	0.08%	1,181,000
2012	1,138,000	1,480,123,000	0.08%	1,181,000

Table 3
West Virginia Public Employees' Retirement System
Cash Flow Projection FY 2007 Through FY 2032

FY Ending 6/30	(1)	(2)	(3)	(4)	(5)	(6)
	Assets Beg. of Year	Expected Contributions	Benefits	Earnings	Net Income	Assets End of Year
2007	3,700,186,000	173,957,000	232,119,000	275,333,000	217,171,000	3,917,357,000
2008	3,917,357,000	182,655,000	239,004,000	291,689,000	235,340,000	4,152,697,000
2009	4,152,697,000	191,788,000	253,273,000	309,147,000	247,662,000	4,400,359,000
2010	4,400,359,000	201,377,000	268,470,000	327,511,000	260,418,000	4,660,777,000
2011	4,660,777,000	211,446,000	285,061,000	346,798,000	273,183,000	4,933,960,000
2012	4,933,960,000	222,018,000	303,186,000	367,003,000	285,835,000	5,219,795,000
2013	5,219,795,000	233,119,000	321,957,000	388,153,000	299,315,000	5,519,110,000
2014	5,519,110,000	244,775,000	341,200,000	410,317,000	313,892,000	5,833,002,000
2015	5,833,002,000	257,014,000	360,835,000	433,582,000	329,761,000	6,162,763,000
2016	6,162,763,000	269,865,000	380,308,000	458,066,000	347,623,000	6,510,386,000
2017	6,510,386,000	283,358,000	399,945,000	483,907,000	367,320,000	6,877,706,000
2018	6,877,706,000	297,526,000	419,108,000	511,269,000	389,687,000	7,267,393,000
2019	7,267,393,000	312,402,000	437,283,000	540,371,000	415,490,000	7,682,883,000
2020	7,682,883,000	328,022,000	454,588,000	571,470,000	444,904,000	8,127,787,000
2021	8,127,787,000	344,423,000	470,502,000	604,856,000	478,777,000	8,606,564,000
2022	8,606,564,000	361,644,000	485,356,000	640,853,000	517,141,000	9,123,705,000
2023	9,123,705,000	379,726,000	499,115,000	679,801,000	560,412,000	9,684,117,000
2024	9,684,117,000	398,712,000	511,551,000	722,077,000	609,238,000	10,293,355,000
2025	10,293,355,000	418,648,000	522,517,000	768,107,000	664,238,000	10,957,593,000
2026	10,957,593,000	439,580,000	532,185,000	818,347,000	725,742,000	11,683,335,000
2027	11,683,335,000	461,559,000	540,747,000	873,281,000	794,093,000	12,477,428,000
2028	12,477,428,000	484,637,000	547,604,000	933,446,000	870,479,000	13,347,907,000
2029	13,347,907,000	508,869,000	552,754,000	999,447,000	955,562,000	14,303,469,000
2030	14,303,469,000	534,312,000	556,468,000	1,071,929,000	1,049,773,000	15,353,242,000
2031	15,353,242,000	561,028,000	558,497,000	1,151,588,000	1,154,119,000	16,507,361,000
2032	16,507,361,000	589,079,000	558,937,000	1,239,182,000	1,269,324,000	17,776,685,000

Assumed interest rate: 7.50%

Earnings: [(1) + [(2) - (3)]/2] x interest rate

Notes:

- The fund balance as of July 1, 2006 is the market value of the fund.
- The contribution for FY 2007 is determined as 15.0% of anticipated FY 2007 base pay (4.5% Member contributions, 10.5% State contributions). Thereafter, the contribution is assumed to increase at 5.0% per year to reflect the salary increase assumption. No new entrants are assumed in this projection.
- The projection of future benefit payments is based on all participants included in the valuation, including active and terminated vested participants who are not yet receiving benefits.

Table 4

GASB-25 and GASB-27 Supplementary Disclosure Information as of June 30, 2006

Government Accounting Standards Board Statements 25 and 27 set forth certain items of required supplementary information to be disclosed in the financial statement of the System and the employer. The following information is intended to be used for this purpose in conjunction with other information prepared by the auditor.

1. Number of Members as of June 30, 2006 and June 30, 2005

Group	June 30, 2006	June 30, 2005
Retirees, disabled retirees and beneficiaries currently receiving benefits	20,026	19,397
Terminated employees entitled to benefits but not yet receiving benefits	3,551	3,112
Terminated employees entitled to a return of employee contributions	9,012	8,186
Active Plan members		
Vested	25,204	25,232
Non Vested	10,485	10,998
Total	68,278	66,925

2. Schedule of Funding Progress (000 omitted)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Liability (AL) - Entry Age (b)	Unfunded Accrued Liability (UAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAL as a Percentage of Covered Payroll (b-a)/(c)
6/30/97	\$2,152,300	\$2,371,752	\$ 219,452	90.7%	\$ 809,315	27.1%
6/30/98	\$2,371,359	\$2,524,214	\$ 152,855	93.9%	\$ 836,541	18.3%
6/30/99	\$2,504,001	\$2,681,756	\$ 177,755	93.4%	\$ 854,883	20.8%
6/30/00	\$2,700,356	\$2,932,484	\$ 232,128	92.1%	\$ 930,331	25.0%
6/30/01	\$2,681,395	\$3,178,037	\$ 496,642	84.4%	\$ 972,711	51.1%
6/30/02	\$2,588,777	\$3,432,467	\$ 843,690	75.4%	\$1,040,269	81.1%
6/30/03	\$2,699,941	\$3,691,001	\$ 991,060	73.1%	\$1,109,272	89.3%
6/30/04	\$3,095,660	\$3,870,201	\$ 774,541	80.0%	\$1,134,111	68.3%
6/30/05	\$3,404,651	\$4,074,385	\$ 669,734	83.6%	\$1,162,098	57.6%
6/30/06	\$3,700,186	\$4,264,700	\$ 564,514	86.8%	\$1,159,715	48.7%

3. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at July 1, 2006. Additional information follows.

Valuation date	7/1/06
Actuarial cost method	Entry age
Amortization method	Level dollar amount
Remaining amortization period	29 years
Asset valuation method	Market value
Actuarial assumptions:	
Investment rate of return	7.5%
Projected salary increases	
State	4.25% - 6.0%
Nonstate	3.75% - 5.5%
Inflation rate	3.0%

Table 5
Valuation Assets as of June 30, 2006
(000 omitted)

Assets	June 30, 2006	June 30, 2005
Cash with State Treasurer	\$ 16	\$ 195
Investments at Fair Value	3,696,027	3,400,387
Contributions Receivable	4,293	4,337
Participant Loans Receivable	0	0
Total Assets	<u>3,700,336</u>	<u>3,404,919</u>
Liabilities		
Accrued Expenses and other Payables	<u>150</u>	<u>268</u>
Net Assets for Pension Benefits	\$ 3,700,186	\$ 3,404,651

Table 6
Statement of Changes in Net Assets for Benefits
For Year ended June 30, 2006
(000 omitted)

Net Assets for Pension Benefits - Beginning of Year	\$	3,404,651
Additions		
Contributions		
Member		52,248
Employer		131,581
Special Appropriation (2006 Ret. Inc)		2,013
Subtotal		<u>185,842</u>
Investment Income		
Net Appreciation in Fair Value *		291,030
Interest		29,661
Subtotal		<u>320,691</u>
Other Income		0
Annuity Payable		0
Total		<u>506,533</u>
Deductions and Transfers		
Benefit Expense		199,255
Refunds of Contributions		9,142
Administrative Expenses		3,179
Transfers (to)/from plans		(578)
Total		<u>210,998</u>
Net Increase		295,535
Net Assets for Pension Benefits - End of Year	\$	3,700,186
Investment Return for Year:		
Valuation purposes (assumes mid-year transactions and offsets investment income by investment and administrative expense)		9.36%
Per Investment Management Board (time-weighted, excluding administrative expense)		9.45%
* Net of Investment Expense		

Table 7

Reconciliation of Plan Participants

	Active	Non-Vested Terms	Vested Terms	Retired	Beneficiaries	Total
Census as of July 1, 2005	36,230	8,186	3,112	15,724	3,673	66,925
New Entrants	3,227	624	8	51	0	3,910
Returned to Active Status	406	(270)	(128)	(8)	0	0
Retired	(1,029)	(12)	(135)	1,165	0	(11)
Died	(55)	(15)	(9)	(622)	(196)	(897)
Terminated						0
- Vested	(792)	(13)	805		0	0
- Non Vested	(770)	770	0	0	0	0
- Withdrew Contributions	(1,506)	(240)	(86)	0	0	(1,832)
- Transfer to Teachers		(2)				(2)
- Transfer to Judges	(4)	(1)				(5)
New Beneficiaries	0	0	0	0	249	249
QDRO's	0	0	0	0	0	0
Adjustments	(18)	(15)	(16)	(8)	(2)	(59)
Census as of July 1, 2006	35,689	9,012	3,551	16,302	3,724	68,278

Table 8
Summary of Membership and Payroll

	<u>7/1/2006</u> Valuation	<u>7/1/2005</u> Valuation
Active Members		
State Employees	23,342	24,101
Nonstate Employees	12,347	12,129
Total	<u>35,689</u>	<u>36,230</u>
Average Age	45.7	45.5
Average Service	11.5	11.5
Inactive Members		
Retirees	14,294	13,777
Beneficiaries	3,724	3,673
Disabled Retirees	2,008	1,947
Vested Terminated	3,551	3,112
Nonvested Terminated	9,012	8,186
Total	<u>32,589</u>	<u>30,695</u>
Payroll For Normal Cost		
State Employees	\$ 797,075,000	\$ 818,966,000
Nonstate Employees	362,640,000	343,132,000
Total	<u>\$ 1,159,715,000</u>	<u>\$ 1,162,098,000</u>
PV of Future Payroll	\$ 8,910,520,000	\$ 9,062,457,000
PV Member Contributions	\$ 400,973,000	\$ 407,811,000

TABLE 9a - STATE

NUMBER AND TOTAL ANNUAL COMPENSATION OF ACTIVE PARTICIPANTS

Attained Age	Years of Credited Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	
Under 25	140 2,846,369	437 10,850,332	16 377,306	- -	- -	- -	- -	- -	- -	- -	593 14,074,007
25 to 29	145 3,261,408	1,099 29,816,689	426 12,350,951	14 428,883	- -	- -	- -	- -	- -	- -	1,684 45,857,931
30 to 34	116 2,633,958	862 23,461,779	983 31,996,291	317 11,723,241	10 315,695	- -	- -	- -	- -	- -	2,288 70,130,964
35 to 39	145 3,208,942	796 21,901,010	877 27,830,003	662 25,216,812	246 9,663,266	13 453,896	- -	- -	- -	- -	2,739 88,273,929
40 to 44	79 1,693,687	716 19,547,692	746 23,495,557	553 20,610,681	459 18,147,116	243 9,486,695	64 2,452,893	- -	- -	- -	2,860 95,434,321
45 to 49	76 1,718,700	646 18,538,241	791 24,336,526	581 20,455,161	521 19,941,364	460 18,835,951	535 20,895,227	107 4,051,180	- -	- -	3,717 128,772,350
50 to 54	59 1,147,497	557 15,217,609	716 22,906,859	552 19,345,939	572 22,325,536	475 19,117,684	677 28,549,066	577 24,389,638	69 2,948,036	- -	4,254 155,947,864
55 to 59	35 768,125	390 10,923,695	527 17,444,899	532 18,800,559	519 19,143,262	461 17,965,628	378 15,987,446	403 18,651,125	241 11,675,873	24 1,145,701	3,510 132,506,313
60 to 64	8 153,105	109 3,121,607	216 7,124,683	181 6,605,653	214 8,095,492	164 6,721,453	125 5,054,554	98 4,282,512	100 5,507,317	46 2,234,292	1,261 48,900,668
65 to 69	- -	17 530,706	52 1,658,584	47 1,698,613	54 2,003,347	56 2,506,704	33 1,382,938	27 1,267,329	17 802,636	21 914,712	324 12,765,569
70 & up	- -	- -	4 100,918	15 616,783	17 583,754	26 1,005,836	16 601,504	14 521,798	8 317,784	12 662,535	112 4,410,912
Total	803 17,431,791	5,629 153,909,360	5,354 169,622,577	3,454 125,502,325	2,612 100,218,832	1,898 76,093,847	1,828 74,923,628	1,226 53,163,582	435 21,251,646	103 4,957,240	23,342 797,074,828

TABLE 9b - NON-STATE

NUMBER AND TOTAL ANNUAL COMPENSATION OF ACTIVE PARTICIPANTS

Attained Age	Years of Credited Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	No./ Tot. Comp.	
Under 25	81 1,299,001	333 6,998,838	17 494,713	- -	- -	- -	- -	- -	- -	- -	431 8,792,552
25 to 29	63 1,250,967	578 14,331,219	238 6,625,833	18 585,496	- -	- -	- -	- -	- -	- -	897 22,793,515
30 to 34	72 1,403,582	507 13,164,504	399 12,142,248	149 4,771,469	14 438,311	- -	- -	- -	- -	- -	1,141 31,920,114
35 to 39	95 1,616,939	542 13,117,385	458 13,286,411	296 9,930,673	133 4,415,025	8 262,202	- -	- -	- -	- -	1,532 42,628,635
40 to 44	51 968,039	526 12,319,734	436 13,064,322	258 8,407,112	262 8,862,349	142 5,263,010	27 965,705	- -	- -	- -	1,702 49,850,271
45 to 49	42 849,083	447 11,175,601	460 13,130,213	352 10,940,266	288 9,890,361	207 7,974,809	194 6,980,138	21 807,463	- -	- -	2,011 61,747,934
50 to 54	41 780,299	402 10,602,906	360 10,045,817	302 9,502,232	273 9,139,030	211 8,020,541	242 9,266,596	136 5,421,296	16 643,788	- -	1,983 63,422,505
55 to 59	26 501,359	299 7,765,528	326 9,562,428	250 7,513,075	285 9,071,854	179 6,523,960	154 5,427,897	97 3,715,289	39 1,727,235	2 87,781	1,657 51,896,406
60 to 64	13 230,202	124 3,034,884	114 2,943,272	126 3,667,270	118 3,592,246	86 2,829,160	59 2,254,469	23 941,577	19 852,202	10 388,894	692 20,734,176
65 to 69	- -	27 604,649	40 1,147,911	43 1,143,368	33 900,702	20 663,302	20 665,830	7 237,892	5 264,936	6 253,732	201 5,882,322
70 & up	- -	- -	7 173,493	11 343,238	32 836,135	21 627,982	15 399,772	4 138,985	3 121,571	7 330,764	100 2,971,940
Total	484 8,899,471	3,785 93,115,248	2,855 82,616,661	1,805 56,804,199	1,438 47,146,013	874 32,164,966	711 25,960,407	288 11,262,502	82 3,609,732	25 1,061,171	12,347 362,640,370

SUMMARY OF VALUATION

TABLE 10

**DISTRIBUTION OF THE NUMBER AND AVERAGE MONTHLY BENEFITS
OF RETIRED PARTICIPANTS AS OF JULY 1, 2006**

Current Age	Service retirees			Beneficiaries			Disabled retirees			Total		
	Number	Avg. Age	Average Monthly Benefit	Number	Avg. Age	Average Monthly Benefit	Number	Avg. Age	Average Monthly Benefit	Number	Avg. Age	Average Monthly Benefit
Under 30	-	-	-	15	25	537	-	-	-	15	25	537
30-34	-	-	-	6	32	489	1	32	791	7	32	533
35-39	-	-	-	6	38	564	15	38	1,004	21	38	879
40-44	-	-	-	31	42	798	35	43	982	66	43	896
45-49	-	-	-	93	47	707	117	47	961	210	47	848
50-54	5	51	848	153	52	826	283	52	1,020	441	52	951
55-59	1,189	57	1,794	243	57	744	496	57	985	1,928	57	1,453
60-64	2,316	62	1,364	333	62	686	399	62	894	3,048	62	1,228
65-69	2,922	67	1,041	429	67	577	283	67	482	3,634	67	942
70-74	2,588	72	849	530	72	552	173	72	447	3,291	72	780
75-79	2,351	77	725	665	77	511	87	77	433	3,103	77	671
80-84	1,671	82	606	588	82	453	81	82	384	2,340	82	560
85-89	864	87	522	417	87	363	30	87	369	1,311	87	468
90-94	315	92	421	179	92	297	7	91	429	501	92	377
95 and over	73	97	407	36	97	427	1	98	567	110	97	415
Total	14,294	72	970	3,724	73	539	2,008	61	794	20,026	71	872
Total annual benefits			166,363,612			24,086,504			19,120,965			209,571,080

TABLE 11

**DISTRIBUTION OF THE NUMBER AND AVERAGE
MONTHLY BENEFITS OF PARTICIPANTS ENTITLED
TO DEFERRED BENEFITS AS OF JULY 1, 2006**

Deferred Vested			
<u>Current Age</u>	<u>Number</u>	<u>Avg. Age</u>	<u>Average Monthly Benefit</u>
Under 30	42	28	125
30-34	182	33	186
35-39	360	37	256
40-44	435	42	357
45-49	565	47	420
50-54	848	52	490
55-59	783	57	439
60-64	273	61	376
65-69	48	67	266
70-74	9	71	297
75-79	4	75	182
80-84	1	83	1
85-89	1	86	16
90-94	-	-	-
95 and over	-	-	-
Total	<u>3,551</u>	<u>49</u>	<u>395</u>
Total annual benefits			16,824,389

A. DEFINITIONS

1. **Plan Name:** The West Virginia Public Employees' Retirement System
2. **Effective Date:** The West Virginia Public Employees' Retirement Act was originally enacted March 11, 1961 to be effective July 1, 1961.
3. **Plan Membership:** All employees of the State of West Virginia or of any participating political subdivisions are required (with certain exceptions) to become plan members. Among those employees not eligible for plan membership are members (and retirees) of other State retirement systems, except for retirees from the Department of Public Safety or from municipal police or fire departments. Members of the State legislature and of local legislative bodies may elect plan membership regardless of the above exclusions.
4. **Annual Compensation:** Annual compensation is the total salary paid to a member by a participating employer, including overtime pay and non-cash payments.
5. **Final Average Salary:** Final average salary is the average of the member's annual compensation during the 3 consecutive years of his credited service (during the 10 years preceding the termination of his employment) that produces the highest such average. If the member has less than 3 years of credited service, his final average salary is his average annual compensation during his period of credit service. Special rules apply to members of the legislature.

B. CONTRIBUTIONS

1. **Member Contributions:** Members contribute 4½% of their salary to the system. Member contributions earn interest at a rate of 4%, compounded annually (3% prior to July 1, 1968).

2. *Employer Contributions:* The State and its participating political subdivisions contribute 10½% of members' compensation to the retirement system.

C. SERVICE CREDITS

1. *Prior Service:* Prior service is the period of employment credited to a member who worked for a participating employer before July 1, 1961. To receive credit for prior service, the employee must have worked for a participating employer within the 30-year period prior to July 1, 1961, and the employee must become a member of the system within 15 years of July 1, 1961 (or within 15 years of his employer's participation in the system, if later).
2. *Contributing Service:* Contributing service is the member's period of employment commencing on his date of participation in the plan.
3. *Credited Service:* Credited service is the sum of the member's prior service and his contributing service. Under certain circumstances, credited service may also be granted for periods of military service and for credited service under the West Virginia Teacher's Retirement System.
4. *Reinstated Service:* A member who terminates service with a participating employer, who does not retire and who is not eligible for a deferred vested benefit, will forfeit his credited service. If the member subsequently reenters covered employment and remains employed for at least 1 year, then his forfeited credited service will be reinstated -- provided that he repays to the fund any member contributions (with interest) that he withdrew upon termination. Such repayment must commence no later than 2 years following his reemployment, and full repayment must be accomplished within 5 years following his reemployment.

5. ***Applied Unused Leave:*** A retiring member may optionally choose to have his unused sick or annual leave applied as credited service to increase the amount of his pension, but cannot apply it for purposes of gaining eligibility for benefits. Credited service for this purpose is determined by first doubling the number of unused leave days so applied, and then each 240 days of (doubled) leave counts as 1 year of credited service in the benefit formula used to compute the amount of the member's pension.

D. NORMAL RETIREMENT BENEFIT

1. ***Eligibility:*** A member who has attained age 60 and has earned 5 or more years of contributing service is eligible for a normal retirement benefit.
2. ***Benefit Amount:*** The annual normal retirement benefit, payable in monthly installments, is equal to 2% of the member's final average salary *times* the number of years of his credited service.
3. ***Normal Form of Benefit:*** The normal form of the retirement benefit is a single life cash refund annuity. This means that the pension is payable only during the member's lifetime, but if he dies before receiving pension payments which total the amount of his accumulated contributions (with interest) at the time of his retirement, then the difference will be paid to his beneficiary.
4. ***Optional Forms of Benefit:*** The retiring member may instead of the "Normal Form" choose an actuarially reduced joint and survivor annuity with his or her spouse as beneficiary, with either 100% or 50% of the amount payable while both are alive continuing to the surviving spouse during the spouse's remaining lifetime. This is a contingent joint and survivor annuity, reducing in amount only upon the retiree's dying first (and not upon the spouse's death).

E. EARLY RETIREMENT BENEFIT (Unreduced)

1. *Eligibility:* Rule of 80; A member who has completed at least 3 years of contributing service and who has attained age 55 with the sum of his age *plus* years of contributing service equal to or greater than 80, may retire at any age on or after age 55.
2. *Amount:* The early retirement benefit is equal to the members normal retirement benefit based on final average salary and years of credited service as of early retirement date, without reduction for early commencement. The early retirement benefit is payable in monthly installments under the same normal or optional forms as the normal retirement benefit.

F. EARLY RETIREMENT BENEFIT (Reduced)

1. *Eligibility:* A terminating member who has completed at least 3 years of contributing service and who either (i) has attained age 55 and completed 10 years of credited service, or (ii) has completed 20 years of credited service, may elect to have his deferred vested benefit commence on the first of any month following his 55th birthday. A terminating member with 30 years of credited service, at least 3 of which are contributing service, may retire early at any age.
2. *Amount:* The early retirement benefit is equal to the normal retirement benefit based on final average salary and years of credited service as of early retirement date reduced by $\frac{1}{2}\%$ per month (6% per year) that the early retirement benefit commencement date precedes the retiring member's 62nd birthday. A member retiring after 30 years of service (who is not eligible for an unreduced benefit) receives a benefit actuarially reduced for the number of years by which his early retirement precedes age 60. In this case, a different scale of early retirement reduction factors applies to the formula benefit. The early retirement benefit is payable in monthly installments under the same normal or optional forms as the normal retirement benefit.

G. DISABILITY BENEFIT

1. **Eligibility:** A member who has completed 10 years of credited service, including three years of contributing service, and who is found to be totally and permanently disabled, is eligible for a disability benefit. A member with less than 10 years of credited service (or less than 3 years of contributing service) who incurs a service-connected total and permanent disability and who is receiving workers' compensation on account of this disability is also eligible for a disability benefit.
2. **Amount:** The monthly disability benefit is 2% of the member's final average salary *times* his credited service when disabled. Prior to age 65 the disability benefit is not less than 50% of the member's final average salary. At age 65 the benefit is the greater of (i) 2% of the member's final average salary *times* his credited service at the time of disablement or (ii) 20% of the member's final average salary.

H. DEFERRED VESTED BENEFIT

1. **Eligibility:** A terminating member who has completed 5 years of credited service, including at least 3 years of contributing service, and who does not withdraw his accumulated contributions, is entitled to a deferred vested benefit commencing at age 62.
2. **Amount:** The deferred vested pension is equal to 2% of the member's final average salary *times* his years of credited service. The deferred vested pension benefit is payable in monthly installments under the same normal or optional forms as the normal retirement benefit.

I. PRERETIREMENT DEATH BENEFITS

1. **Eligibility:** A life annuity is paid to the surviving spouse or other designated beneficiary of an active member (or former member entitled to a deferred benefit) who dies after completing 10 years of credited service and before retiring. If a member has no spouse or designated beneficiary, his children (if any) receive annuities until they reach age 21 or marry, if earlier. If there is no spouse, child, or qualified beneficiary, or if the member dies with less than 10 years of credited service, then the member's accumulated contributions will be paid to his estate as a death benefit.
2. **Amount:** The spouse's or designated beneficiary's pension is calculated as if the member had retired on the day of his death and elected a 100% joint and survivor annuity with his spouse or designated beneficiary as co-annuitant. There is no reduction for early commencement of benefits.

The amount of a (non-designated beneficiary) surviving child's annuity is based upon the annuity reserve the member would have had if he had retired on his date of death. This annuity is payable until the child reaches age 21 or is married, if earlier. In no event is a surviving child paid more than \$250 monthly, and the total paid to all surviving children will not exceed 60% of the member's final average salary.

J. POSTRETIREMENT DEATH BENEFITS

Other than the death benefit inherent in the cash refund feature of the normal form of benefit, or the survivor's annuity in the case of a joint and survivor pension, no postretirement death benefits are payable under this retirement plan.

K. OTHER TERMINATIONS

A member who terminates employment other than by death and prior to becoming eligible for a normal retirement, early retirement, deferred vested or disability benefit, may upon his request receive a refund of his contributions. If the member has at least 2 years of service in the plan, the refund will include accrued interest on the member's contributions. After receiving a refund of contributions, a member has no further right to benefits under this retirement system.

A. Valuation Date

July 1, 2006

B. Funding Method

The valuation is prepared under the Entry Age Cost Method with individually computed accrued liabilities. The Normal Cost is computed in aggregate. Entry is based on date of hire.

C. Interest Rate and Expenses

The valuation interest assumption is 7.5% annually, with no loading for plan expenses.

D. Mortality

The 1971 Group Annuity Mortality Table, separately for males and females, is used for healthy lives. Healthy male mortality is based on a 1-year setback to the male table. Healthy female mortality is based on the female table without adjustment. Disabled male mortality is based on an 8-year age set forward to the healthy table. Disabled female mortality is based on the Revenue Ruling 96-7 Post 94 female disability mortality table.

E. Salary Scales

The salary scale is shown in the Appendix. Projected salary increases for State employees are in the range of 4.25% to 6.0% per year and for Nonstate employees in the range of 3.75% to 5.5% per year.

F. Withdrawal from Service

Withdrawal rates are shown in the Appendix. All withdrawal is assumed to result in refund of contributions if nonvested or a deferred annuity if vested. The liability for a refund of contributions for nonactive nonvested members as of the valuation date is assumed to be 60% of the total employee contribution balance of such members.

G. Disablement Rates

Disablement rates are shown in the Appendix.

H. Family Composition

It is assumed that 85% of males and 80% of females are married, with husbands 3 years older than wives. Remarriage rates are not used.

I. Accrual of Future Service

It is assumed that active members will accrue one year of service for each future year of employment.

J. Noncontributory Service Loadings

Noncontributory service for active members is estimated from member's contributory service by adjusting the present values of benefits projected from contributory service alone. An 8.5% load is used for males and a 2.5% load is used for females.

K. Retirement Rates

The retirement rates are shown in the Appendix.

L. Asset Valuation Method

Assets for valuation purposes are included at Market Value.

L. Plan Contributions

Plan contributions, both employee and employer, are assumed to be paid in the middle of the year.

State Salary Scale

Age	Male	Female	Age	Male	Female	Age	Male	Female
19	1.06000	1.06000	37	1.05150	1.05150	54	1.04550	1.04550
20	1.06000	1.06000	38	1.05100	1.05100	55	1.04500	1.04500
21	1.05950	1.05950	39	1.05050	1.05050	56	1.04450	1.04450
22	1.05900	1.05900	40	1.05000	1.05000	57	1.04400	1.04400
23	1.05850	1.05850	41	1.04975	1.04975	58	1.04350	1.04350
24	1.05800	1.05800	42	1.04950	1.04950	59	1.04300	1.04300
25	1.05750	1.05750	43	1.04925	1.04925	60	1.04250	1.04250
26	1.05700	1.05700	44	1.04900	1.04900	61	1.04250	1.04250
27	1.05650	1.05650	45	1.04875	1.04875	62	1.04250	1.04250
28	1.05600	1.05600	46	1.04850	1.04850	63	1.04250	1.04250
29	1.05550	1.05550	47	1.04825	1.04825	64	1.04250	1.04250
30	1.05500	1.05500	48	1.04800	1.04800	65	1.04250	1.04250
31	1.05450	1.05450	49	1.04775	1.04775	66	1.04250	1.04250
32	1.05400	1.05400	50	1.04750	1.04750	67	1.04250	1.04250
33	1.05350	1.05350	51	1.04700	1.04700	68	1.04250	1.04250
34	1.05300	1.05300	52	1.04650	1.04650	69	1.04250	1.04250
35	1.05250	1.05250	53	1.04600	1.04600	70	1.04250	1.04250
36	1.05200	1.05200						

Nonstate Salary Scale

Age	Male	Female	Age	Male	Female	Age	Male	Female
19	1.05500	1.05500	37	1.04650	1.04650	54	1.04050	1.04050
20	1.05500	1.05500	38	1.04600	1.04600	55	1.04000	1.04000
21	1.05450	1.05450	39	1.04550	1.04550	56	1.03950	1.03950
22	1.05400	1.05400	40	1.04500	1.04500	57	1.03900	1.03900
23	1.05350	1.05350	41	1.04475	1.04475	58	1.03850	1.03850
24	1.05300	1.05300	42	1.04450	1.04450	59	1.03800	1.03800
25	1.05250	1.05250	43	1.04425	1.04425	60	1.03750	1.03750
26	1.05200	1.05200	44	1.04400	1.04400	61	1.03750	1.03750
27	1.05150	1.05150	45	1.04375	1.04375	62	1.03750	1.03750
28	1.05100	1.05100	46	1.04350	1.04350	63	1.03750	1.03750
29	1.05050	1.05050	47	1.04325	1.04325	64	1.03750	1.03750
30	1.05000	1.05000	48	1.04300	1.04300	65	1.03750	1.03750
31	1.04950	1.04950	49	1.04275	1.04275	66	1.03750	1.03750
32	1.04900	1.04900	50	1.04250	1.04250	67	1.03750	1.03750
33	1.04850	1.04850	51	1.04200	1.04200	68	1.03750	1.03750
34	1.04800	1.04800	52	1.04150	1.04150	69	1.03750	1.03750
35	1.04750	1.04750	53	1.04100	1.04100	70	1.03750	1.03750
36	1.04700	1.04700						

State Withdrawal Decrements (less than 1 year)

Age	Male	Female	Age	Male	Female	Age	Male	Female
19	0.20000	0.20000	33	0.15700	0.15800	47	0.12600	0.12600
20	0.20000	0.20000	34	0.15400	0.15400	48	0.12400	0.12400
21	0.19600	0.19600	35	0.15200	0.15000	49	0.12200	0.12200
22	0.19300	0.19200	36	0.14800	0.14800	50	0.12000	0.12000
23	0.19000	0.18800	37	0.14600	0.14600	51	0.11800	0.11800
24	0.18700	0.18400	38	0.14400	0.14400	52	0.11600	0.11600
25	0.18300	0.18000	39	0.14200	0.14200	53	0.11400	0.11400
26	0.18000	0.17800	40	0.14000	0.14000	54	0.11200	0.11200
27	0.17700	0.17600	41	0.13800	0.13800	55	0.11000	0.11000
28	0.17400	0.17400	42	0.13600	0.13600	56	0.11000	0.11000
29	0.17000	0.17200	43	0.13400	0.13400	57	0.11000	0.11000
30	0.16600	0.17000	44	0.13200	0.13200	58	0.11000	0.11000
31	0.16300	0.16600	45	0.13000	0.13000	59	0.11000	0.11000
32	0.16000	0.16200	46	0.12800	0.12800	60	0.11000	0.11000

State Withdrawal Decrements (1 to 2 years)

Age	Male	Female	Age	Male	Female	Age	Male	Female
19	0.21000	0.18000	33	0.15000	0.14800	47	0.11000	0.10600
20	0.21000	0.18000	34	0.14500	0.14400	48	0.11000	0.10400
21	0.20600	0.17800	35	0.14000	0.14000	49	0.11000	0.10200
22	0.20200	0.17600	36	0.13600	0.13600	50	0.11000	0.10000
23	0.19800	0.17400	37	0.13200	0.13200	51	0.10800	0.09800
24	0.19400	0.17200	38	0.12800	0.12800	52	0.10600	0.09600
25	0.19000	0.17000	39	0.12400	0.12400	53	0.10400	0.09400
26	0.18500	0.16800	40	0.12000	0.12000	54	0.10200	0.09200
27	0.18000	0.16600	41	0.11800	0.11800	55	0.10000	0.09000
28	0.17500	0.16400	42	0.11600	0.11600	56	0.10000	0.09000
29	0.17000	0.16200	43	0.11400	0.11400	57	0.10000	0.09000
30	0.16500	0.16000	44	0.11200	0.11200	58	0.10000	0.09000
31	0.16000	0.15600	45	0.11000	0.11000	59	0.10000	0.09000
32	0.15500	0.15200	46	0.11000	0.10800	60	0.10000	0.09000

State Withdrawal Decrements (2 to 3 years)

Age	Male	Female	Age	Male	Female	Age	Male	Female
19	0.19000	0.16000	33	0.12800	0.12800	47	0.08600	0.08600
20	0.19000	0.16000	34	0.12400	0.12400	48	0.08400	0.08400
21	0.18600	0.15800	35	0.12000	0.12000	49	0.08200	0.08200
22	0.18200	0.15600	36	0.11600	0.11600	50	0.08000	0.08000
23	0.17800	0.15400	37	0.11200	0.11200	51	0.07800	0.07800
24	0.17400	0.15200	38	0.10800	0.10800	52	0.07600	0.07600
25	0.17000	0.15000	39	0.10400	0.10400	53	0.07400	0.07400
26	0.16400	0.14800	40	0.10000	0.10000	54	0.07200	0.07200
27	0.15800	0.14600	41	0.09800	0.09800	55	0.07000	0.07000
28	0.15200	0.14400	42	0.09600	0.09600	56	0.06800	0.06800
29	0.14600	0.14200	43	0.09400	0.09400	57	0.06600	0.06600
30	0.14000	0.14000	44	0.09200	0.09200	58	0.06400	0.06400
31	0.13600	0.13600	45	0.09000	0.09000	59	0.06200	0.06200
32	0.13200	0.13200	46	0.08800	0.08800	60	0.06000	0.06000

State Withdrawal Decrements (3 to 4 years)

Age	Male	Female	Age	Male	Female	Age	Male	Female
19	0.16000	0.14000	33	0.10800	0.10800	47	0.06600	0.07300
20	0.16000	0.14000	34	0.10400	0.10400	48	0.06400	0.07200
21	0.15600	0.13800	35	0.10000	0.10000	49	0.06200	0.07100
22	0.15200	0.13600	36	0.09600	0.09600	50	0.06000	0.07000
23	0.14800	0.13400	37	0.09200	0.09200	51	0.05800	0.06800
24	0.14400	0.13200	38	0.08800	0.08800	52	0.05600	0.06600
25	0.14000	0.13000	39	0.08400	0.08400	53	0.05400	0.06400
26	0.13600	0.12800	40	0.08000	0.08000	54	0.05200	0.06200
27	0.13200	0.12600	41	0.07800	0.07900	55	0.05000	0.06000
28	0.12800	0.12400	42	0.07600	0.07800	56	0.04800	0.05800
29	0.12400	0.12200	43	0.07400	0.07700	57	0.04600	0.05600
30	0.12000	0.12000	44	0.07200	0.07600	58	0.04400	0.05400
31	0.11600	0.11600	45	0.07000	0.07500	59	0.04200	0.05200
32	0.11200	0.11200	46	0.06800	0.07400	60	0.04000	0.05000

State Withdrawal Decrements (4 to 5 years)

Age	Male	Female	Age	Male	Female	Age	Male	Female
19	0.13000	0.10000	33	0.08800	0.08400	47	0.04600	0.05900
20	0.13000	0.10000	34	0.08400	0.08200	48	0.04400	0.05850
21	0.12600	0.09900	35	0.08000	0.08000	49	0.04200	0.05800
22	0.12200	0.09800	36	0.07600	0.07800	50	0.04000	0.05750
23	0.11800	0.09700	37	0.07200	0.07600	51	0.03800	0.05650
24	0.11400	0.09600	38	0.06800	0.07400	52	0.03600	0.05550
25	0.11000	0.09500	39	0.06400	0.07200	53	0.03400	0.05450
26	0.10800	0.09400	40	0.06000	0.07000	54	0.03200	0.05350
27	0.10600	0.09300	41	0.05800	0.06800	55	0.03000	0.05250
28	0.10400	0.09200	42	0.05600	0.06600	56	0.02800	0.05000
29	0.10200	0.09100	43	0.05400	0.06400	57	0.02600	0.04750
30	0.10000	0.09000	44	0.05200	0.06200	58	0.02400	0.04500
31	0.09600	0.08800	45	0.05000	0.06000	59	0.02200	0.04250
32	0.09200	0.08600	46	0.04800	0.05950	60	0.02000	0.04000

State Withdrawal Decrements (greater than 5 years)

Age	Male	Female	Age	Male	Female	Age	Male	Female
19	0.10000	0.11000	33	0.06100	0.06500	47	0.02600	0.03800
20	0.10000	0.11000	34	0.05800	0.06000	48	0.02400	0.03700
21	0.09600	0.10800	35	0.05500	0.05500	49	0.02200	0.03600
22	0.09200	0.10600	36	0.05200	0.05300	50	0.02000	0.03500
23	0.08800	0.10400	37	0.04900	0.05100	51	0.01800	0.03200
24	0.08400	0.10200	38	0.04600	0.04900	52	0.01600	0.02900
25	0.08000	0.10000	39	0.04300	0.04700	53	0.01400	0.02600
26	0.07800	0.09600	40	0.04000	0.04500	54	0.01200	0.02300
27	0.07600	0.09200	41	0.03800	0.04400	55	0.01000	0.02000
28	0.07400	0.08800	42	0.03600	0.04300	56	0.01000	0.01800
29	0.07200	0.08400	43	0.03400	0.04200	57	0.01000	0.01600
30	0.07000	0.08000	44	0.03200	0.04100	58	0.01000	0.01400
31	0.06700	0.07500	45	0.03000	0.04000	59	0.01000	0.01200
32	0.06400	0.07000	46	0.02800	0.03900	60	0.01000	0.01000

Nonstate Withdrawal Decrements (less than 1 year)

Age	Male	Female	Age	Male	Female	Age	Male	Female
19	0.26000	0.25000	33	0.20800	0.20900	47	0.15200	0.16800
20	0.26000	0.25000	34	0.20400	0.20500	48	0.14800	0.16200
21	0.25600	0.24700	35	0.20000	0.20000	49	0.14400	0.15600
22	0.25200	0.24400	36	0.19600	0.19800	50	0.14000	0.15000
23	0.24800	0.24100	37	0.19200	0.19600	51	0.13600	0.14600
24	0.24400	0.23800	38	0.18800	0.19400	52	0.13200	0.14200
25	0.24000	0.23400	39	0.18400	0.19200	53	0.12800	0.13800
26	0.23600	0.23100	40	0.18000	0.19000	54	0.12400	0.13400
27	0.23200	0.22800	41	0.17600	0.18800	55	0.12000	0.13000
28	0.22800	0.22500	42	0.17200	0.18600	56	0.11600	0.12800
29	0.22400	0.22200	43	0.16800	0.18400	57	0.11200	0.12600
30	0.22000	0.21800	44	0.16400	0.18200	58	0.11000	0.12400
31	0.21600	0.21500	45	0.16000	0.18000	59	0.11000	0.12200
32	0.21200	0.21200	46	0.15600	0.17400	60	0.11000	0.12000

Nonstate Withdrawal Decrements (1 to 2 years)

Age	Male	Female	Age	Male	Female	Age	Male	Female
19	0.21000	0.21000	33	0.15800	0.18400	47	0.11600	0.14200
20	0.21000	0.21000	34	0.15400	0.18200	48	0.11400	0.13800
21	0.20800	0.20800	35	0.15000	0.18000	49	0.11200	0.13400
22	0.20600	0.20600	36	0.14600	0.17700	50	0.11000	0.13000
23	0.20400	0.20400	37	0.14200	0.17400	51	0.10800	0.12800
24	0.20200	0.20200	38	0.13800	0.17100	52	0.10600	0.12600
25	0.20000	0.20000	39	0.13400	0.16800	53	0.10400	0.12400
26	0.19400	0.19800	40	0.13000	0.16500	54	0.10200	0.12200
27	0.18800	0.19600	41	0.12800	0.16200	55	0.10000	0.12000
28	0.18200	0.19400	42	0.12600	0.15900	56	0.10000	0.11800
29	0.17600	0.19200	43	0.12400	0.15600	57	0.10000	0.11600
30	0.17000	0.19000	44	0.12200	0.15300	58	0.10000	0.11400
31	0.16600	0.18800	45	0.12000	0.15000	59	0.10000	0.11200
32	0.16200	0.18600	46	0.11800	0.14600	60	0.10000	0.11000

Nonstate Withdrawal Decrements (2 to 3 years)

Age	Male	Female	Age	Male	Female	Age	Male	Female
19	0.20000	0.19000	33	0.14200	0.16400	47	0.09900	0.12400
20	0.20000	0.19000	34	0.13600	0.16200	48	0.09600	0.12100
21	0.19700	0.18800	35	0.13000	0.16000	49	0.09300	0.11800
22	0.19400	0.18600	36	0.12700	0.15600	50	0.09000	0.11500
23	0.19100	0.18400	37	0.12400	0.15200	51	0.08900	0.11300
24	0.18800	0.18200	38	0.12100	0.14800	52	0.08800	0.11100
25	0.18500	0.18000	39	0.11800	0.14400	53	0.08700	0.10900
26	0.18000	0.17800	40	0.11500	0.14000	54	0.08600	0.10700
27	0.17500	0.17600	41	0.11300	0.13800	55	0.08500	0.10500
28	0.17000	0.17400	42	0.11100	0.13600	56	0.08400	0.10300
29	0.16500	0.17200	43	0.10900	0.13400	57	0.08300	0.10100
30	0.16000	0.17000	44	0.10700	0.13200	58	0.08200	0.09900
31	0.15400	0.16800	45	0.10500	0.13000	59	0.08100	0.09700
32	0.14800	0.16600	46	0.10200	0.12700	60	0.08000	0.09500

Nonstate Withdrawal Decrements (3 to 4 years)

Age	Male	Female	Age	Male	Female	Age	Male	Female
19	0.19000	0.18000	33	0.12200	0.14300	47	0.08600	0.10600
20	0.19000	0.18000	34	0.11600	0.13900	48	0.08400	0.10400
21	0.18600	0.17800	35	0.11000	0.13500	49	0.08200	0.10200
22	0.18200	0.17600	36	0.10800	0.13400	50	0.08000	0.10000
23	0.17800	0.17400	37	0.10600	0.13300	51	0.07800	0.09800
24	0.17400	0.17200	38	0.10400	0.13200	52	0.07600	0.09600
25	0.17000	0.17000	39	0.10200	0.13100	53	0.07400	0.09400
26	0.16400	0.16700	40	0.10000	0.13000	54	0.07200	0.09200
27	0.15800	0.16400	41	0.09800	0.12600	55	0.07000	0.09000
28	0.15200	0.16100	42	0.09600	0.12200	56	0.06800	0.08800
29	0.14600	0.15800	43	0.09400	0.11800	57	0.06600	0.08600
30	0.14000	0.15500	44	0.09200	0.11400	58	0.06400	0.08400
31	0.13400	0.15100	45	0.09000	0.11000	59	0.06200	0.08200
32	0.12800	0.14700	46	0.08800	0.10800	60	0.06000	0.08000

Nonstate Withdrawal Decrements (4 to 5 years)

Age	Male	Female	Age	Male	Female	Age	Male	Female
19	0.17000	0.17000	33	0.10700	0.11200	47	0.06100	0.07600
20	0.17000	0.17000	34	0.10100	0.10600	48	0.05900	0.07400
21	0.16500	0.16600	35	0.09500	0.10000	49	0.05700	0.07200
22	0.16000	0.16200	36	0.09100	0.09800	50	0.05500	0.07000
23	0.15500	0.15800	37	0.08700	0.09600	51	0.05300	0.06800
24	0.15000	0.15400	38	0.08300	0.09400	52	0.05100	0.06600
25	0.14500	0.15000	39	0.07900	0.09200	53	0.04900	0.06400
26	0.14100	0.14600	40	0.07500	0.09000	54	0.04700	0.06200
27	0.13700	0.14200	41	0.07300	0.08800	55	0.04500	0.06000
28	0.13300	0.13800	42	0.07100	0.08600	56	0.04300	0.05800
29	0.12900	0.13400	43	0.06900	0.08400	57	0.04100	0.05600
30	0.12500	0.13000	44	0.06700	0.08200	58	0.03900	0.05400
31	0.11900	0.12400	45	0.06500	0.08000	59	0.03700	0.05200
32	0.11300	0.11800	46	0.06300	0.07800	60	0.03500	0.05000

Nonstate Withdrawal Decrements (greater than 5 years)

Age	Male	Female	Age	Male	Female	Age	Male	Female
19	0.15000	0.16000	33	0.08100	0.08800	47	0.04600	0.04400
20	0.15000	0.16000	34	0.07800	0.08400	48	0.04400	0.04100
21	0.14400	0.15400	35	0.07500	0.08000	49	0.04200	0.03800
22	0.13800	0.14800	36	0.07200	0.07700	50	0.04000	0.03500
23	0.13200	0.14200	37	0.06900	0.07400	51	0.03800	0.03300
24	0.12600	0.13600	38	0.06600	0.07100	52	0.03600	0.03100
25	0.12000	0.13000	39	0.06300	0.06800	53	0.03400	0.02900
26	0.11400	0.12400	40	0.06000	0.06500	54	0.03200	0.02700
27	0.10800	0.11800	41	0.05800	0.06200	55	0.03000	0.02500
28	0.10200	0.11200	42	0.05600	0.05900	56	0.02800	0.02400
29	0.09600	0.10600	43	0.05400	0.05600	57	0.02600	0.02300
30	0.09000	0.10000	44	0.05200	0.05300	58	0.02400	0.02200
31	0.08700	0.09600	45	0.05000	0.05000	59	0.02200	0.02100
32	0.08400	0.09200	46	0.04800	0.04700	60	0.02000	0.02000

State and Nonstate Disability Decrements

Age	Male	Female	Age	Male	Female	Age	Male	Female
19	0.00000	0.00000	33	0.00052	0.00092	47	0.00470	0.00240
20	0.00010	0.00010	34	0.00056	0.00096	48	0.00530	0.00260
21	0.00012	0.00018	35	0.00060	0.00100	49	0.00590	0.00280
22	0.00014	0.00026	36	0.00078	0.00110	50	0.00650	0.00300
23	0.00016	0.00034	37	0.00096	0.00120	51	0.00700	0.00380
24	0.00018	0.00042	38	0.00114	0.00130	52	0.00750	0.00460
25	0.00020	0.00050	39	0.00132	0.00140	53	0.00800	0.00540
26	0.00024	0.00056	40	0.00150	0.00150	54	0.00850	0.00620
27	0.00028	0.00062	41	0.00190	0.00160	55	0.00900	0.00700
28	0.00032	0.00068	42	0.00230	0.00170	56	0.00920	0.00750
29	0.00036	0.00074	43	0.00270	0.00180	57	0.00940	0.00800
30	0.00040	0.00080	44	0.00310	0.00190	58	0.00960	0.00850
31	0.00044	0.00084	45	0.00350	0.00200	59	0.00980	0.00900
32	0.00048	0.00088	46	0.00410	0.00220	60	0.01000	0.01000

State and Nonstate Retirement Decrements

Age	Male	Female
55	0.15000	0.15000
56	0.15000	0.15000
57	0.15000	0.15000
58	0.15000	0.15000
59	0.15000	0.15000
60	0.15000	0.15000
61	0.15000	0.15000
62	0.35000	0.35000
63	0.18000	0.18000
64	0.18000	0.18000
65	0.30000	0.30000
66	0.20000	0.20000
67	0.20000	0.20000
68	0.20000	0.20000
69	0.20000	0.20000
70	1.00000	1.00000
and older		