

**West Virginia  
Public Employees' Retirement System**

**Actuarial Valuation  
As of July 1, 2009**

**Prepared by:**



**for the  
West Virginia Consolidated Public Retirement Board**

**January 2010**

January 11, 2010

West Virginia Consolidated Public Retirement Board  
4101 MacCorkle Avenue, SE  
Charleston, WV 25304

**Re: West Virginia Public Employees' Retirement System, Actuarial Valuation as of July 1, 2009**

Retirement Board Members:

We respectfully present our report on the actuarial valuation of the West Virginia Public Employees' Retirement System as of July 1, 2009. 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 11% of payroll plus the member contributions of 4.5% of payroll are not sufficient to meet the annual funding requirement of the plan.

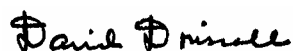
This report contains supporting data and background information pertaining to the development of costs and related liabilities of the Plan. The valuation is based on:

- membership data as of June 30, 2009, maintained by the West Virginia Consolidated Public Retirement Board
- financial information received from the West Virginia Investment Management Board.

This report presents fairly the actuarial position of the West Virginia Public Employees' Retirement System as of July 1, 2009, 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.

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and I am available to answer questions about it.

Respectfully submitted,



David L. Driscoll, FSA, EA  
Principal and Consulting Actuary

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This report presents the results of the July 1, 2009, 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, 2008, is presented in Table 1. The report includes disclosure information under Statements 25 and 27 of the Governmental Accounting Standards Board (GASB). A summary of the plan features, a summary of the methods, 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 11% 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 are less than 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 26-year period (30 years from July 1, 2005), the amount required to amortize the liability for benefit improvements to actives under SB173 over a 7-year period (10 years from July 1, 2006), and the amount required to amortize the liability for retiree improvements under HB4846 over a 3-year period (6 years from July 1, 2006). The liability for retiree improvements under HB103 was fully amortized by a special appropriation made at the beginning of FY 2009.

**Comments on Valuation Results**

Table 1 presents the development of the valuation results as of July 1, 2009 and, for comparison purposes, July 1, 2008. 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 \$1,681 million. This table illustrates the expected pattern of change in the unfunded liability over the remaining 26-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 FY2035.

**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>7/1/09</u>	<u>7/1/08</u>
Actives	35,717	35,491
Retirees & Beneficiaries	21,499	20,912
Terminated Vested	3,884	3,863
Terminated Nonvested	<u>11,239</u>	<u>10,697</u>
Total recognized in the valuation	72,339	70,963

Table 7 presents a reconciliation of plan membership over the year and Table 8 presents supplemental information on plan membership. Tables 9a and 9b show the number and total compensation for state and non-state active participants by five-year age and service groupings as of July 1, 2009. 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, 2009	July 1, 2008
Membership		
Active	35,717	35,491
Inactive	36,622	35,472
Total	<u>72,339</u>	<u>70,963</u>
1. Present Value of Future Benefits		
a. Active	\$ 3,537,610	\$ 3,399,810
b. Inactive - Retirees	1,850,459	1,721,292
- Disabled Retirees	174,560	164,286
- Beneficiaries	219,138	208,763
- Vested Terminated	85,407	86,423
- Non-Vested Terminated	9,307	8,498
c. Total	<u>5,876,481</u>	<u>5,589,072</u>
2. Actuarial Accrued Liability	4,930,158	4,677,027
3. Assets (Market Value)	3,248,270	3,939,059
4. Unfunded Actuarial Accrued Liability (2) - (3)	1,681,888	737,968
a. Primary Unfunded	1,681,485	735,093
b. Improvements for actives per SB 173	108	120
c. Retirement increase per HB 4846	295	2,245
d. Retiree improvements per HB 103	0	510
5. Annual Normal Cost Rate		
a. Present Value of Future Normal Cost (1c)-(2)	946,323	912,045
b. Present Value of Future Payroll	9,487,473	9,128,867
c. Normal Cost Rate as a % of Payroll (5a)/(5b)	9.97%	9.99%
d. Employee Contribution Rate	4.50%	4.50%
e. Employer Share of Normal Cost	5.47%	5.49%
f. Valuation Compensation FY 2010(2009)	1,274,485	1,219,388
6. Calculated Employer Cost FY 2010(2009)		
a. Amortization Payment on UAAL MOY <sup>1</sup>	143,526	61,967
b. Amortization Payment on SB 173 MOY <sup>2</sup>	20	20
c. Amortization Payment on HB 4846 MOY <sup>3</sup>	109	646
d. Amortization Payment on HB 103 MOY	0	105
d. Employer Normal Cost MOY	72,281	69,409
e. Total Employer Cost MOY	<u>215,936</u>	<u>132,147</u>
f. Employer Cost as Percentage of Compensation	16.94%	10.84%
7. Expected Employer Contributions FY 2010(2009)		
a. Employer Contribution Rate	11.00%	10.50%
b. Employer Contribution	140,193	128,036

<sup>1</sup> FY 2010, amortization payment is over 26 years, 30 years from July 1, 2005

<sup>2</sup> FY 2010, amortization payment is over 7 years, 10 years from July 1, 2006

<sup>3</sup> FY 2010, amortization payment is over 3 years, 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
2010	1,681,485,000	1,274,485,000	11.26%	143,526,000
2011	1,658,785,000	1,338,209,000	10.73%	143,526,000
2012	1,634,383,000	1,405,120,000	10.21%	143,526,000
2013	1,608,151,000	1,475,376,000	9.73%	143,526,000
2014	1,579,952,000	1,549,144,000	9.26%	143,526,000
2015	1,549,637,000	1,626,602,000	8.82%	143,526,000
2016	1,517,049,000	1,707,932,000	8.40%	143,526,000
2017	1,482,017,000	1,793,328,000	8.00%	143,526,000
2018	1,444,357,000	1,882,995,000	7.62%	143,526,000
2019	1,403,873,000	1,977,145,000	7.26%	143,526,000
2020	1,360,352,000	2,076,002,000	6.91%	143,526,000
2021	1,313,568,000	2,179,802,000	6.58%	143,526,000
2022	1,263,275,000	2,288,792,000	6.27%	143,526,000
2023	1,209,209,000	2,403,232,000	5.97%	143,526,000
2024	1,151,089,000	2,523,393,000	5.69%	143,526,000
2025	1,088,610,000	2,649,563,000	5.42%	143,526,000
2026	1,021,445,000	2,782,041,000	5.16%	143,526,000
2027	949,242,000	2,921,143,000	4.91%	143,526,000
2028	871,624,000	3,067,200,000	4.68%	143,526,000
2029	788,185,000	3,220,560,000	4.46%	143,526,000
2030	698,488,000	3,381,588,000	4.24%	143,526,000
2031	602,064,000	3,550,668,000	4.04%	143,526,000
2032	498,408,000	3,728,201,000	3.85%	143,526,000
2033	386,977,000	3,914,611,000	3.67%	143,526,000
2034	267,190,000	4,110,342,000	3.49%	143,526,000
2035	138,418,000	4,315,859,000	3.33%	143,526,000



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
2010	108,000	1,274,485,000	0.00%	20,000
2011	96,000	1,338,209,000	0.00%	20,000
2012	82,000	1,405,120,000	0.00%	20,000
2013	67,000	1,475,376,000	0.00%	20,000
2014	52,000	1,549,144,000	0.00%	20,000
2015	35,000	1,626,602,000	0.00%	20,000
2016	17,000	1,707,932,000	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
2010	295,000	1,274,485,000	0.01%	109,000
2011	204,000	1,338,209,000	0.01%	109,000
2012	106,000	1,405,120,000	0.01%	109,000

**Table 3**  
**West Virginia Public Employees' Retirement System**  
**Cash Flow Projection FY 2010 Through FY 2035**

<b>FY</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>
<b>Ending</b>	<b>Assets</b>	<b>Expected</b>				<b>Assets</b>
<b>6/30</b>	<b>Beg. of Year</b>	<b>Contributions</b>	<b>Benefits</b>	<b>Earnings</b>	<b>Net Income</b>	<b>End of Year</b>
2010	3,248,270,000	197,545,000	284,857,000	240,346,000	153,034,000	3,401,304,000
2011	3,401,304,000	207,422,000	293,085,000	251,885,000	166,222,000	3,567,526,000
2012	3,567,526,000	217,793,000	310,819,000	264,076,000	171,050,000	3,738,576,000
2013	3,738,576,000	228,683,000	329,429,000	276,615,000	175,869,000	3,914,445,000
2014	3,914,445,000	240,117,000	348,780,000	289,509,000	180,846,000	4,095,291,000
2015	4,095,291,000	252,123,000	368,485,000	302,783,000	186,421,000	4,281,712,000
2016	4,281,712,000	264,729,000	388,449,000	316,489,000	192,769,000	4,474,481,000
2017	4,474,481,000	277,965,000	409,028,000	330,671,000	199,608,000	4,674,089,000
2018	4,674,089,000	291,863,000	429,083,000	345,411,000	208,191,000	4,882,280,000
2019	4,882,280,000	306,456,000	448,735,000	360,836,000	218,557,000	5,100,837,000
2020	5,100,837,000	321,779,000	467,973,000	377,081,000	230,887,000	5,331,724,000
2021	5,331,724,000	337,868,000	485,896,000	394,328,000	246,300,000	5,578,024,000
2022	5,578,024,000	354,761,000	502,611,000	412,807,000	264,957,000	5,842,981,000
2023	5,842,981,000	372,499,000	518,420,000	432,752,000	286,831,000	6,129,812,000
2024	6,129,812,000	391,124,000	533,041,000	454,414,000	312,497,000	6,442,309,000
2025	6,442,309,000	410,680,000	546,189,000	478,092,000	342,583,000	6,784,892,000
2026	6,784,892,000	431,214,000	558,240,000	504,103,000	377,077,000	7,161,969,000
2027	7,161,969,000	452,775,000	569,516,000	532,770,000	416,029,000	7,577,998,000
2028	7,577,998,000	475,414,000	579,029,000	564,464,000	460,849,000	8,038,847,000
2029	8,038,847,000	499,185,000	587,002,000	599,620,000	511,803,000	8,550,650,000
2030	8,550,650,000	524,144,000	593,985,000	638,680,000	568,839,000	9,119,489,000
2031	9,119,489,000	550,351,000	599,488,000	682,119,000	632,982,000	9,752,471,000
2032	9,752,471,000	577,869,000	603,468,000	730,475,000	704,876,000	10,457,347,000
2033	10,457,347,000	606,762,000	606,158,000	784,324,000	784,928,000	11,242,275,000
2034	11,242,275,000	637,100,000	606,701,000	844,311,000	874,710,000	12,116,985,000
2035	12,116,985,000	668,955,000	605,300,000	911,161,000	974,816,000	13,091,801,000

**Assumed interest rate: 7.50%**

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

**Notes:**

- The fund balance as of July 1, 2009 is the market value of the fund.
- The contribution for FY 2010 is determined as 15.5% of anticipated FY 2010 base pay (4.5% Member contributions, 11.0% 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, 2009

Governmental 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, 2009 and June 30, 2008

Group	June 30, 2009	June 30, 2008
Retirees, disabled retirees and beneficiaries currently receiving benefits	21,499	20,912
Terminated employees entitled to benefits but not yet receiving benefits	3,884	3,863
Terminated employees entitled to a return of employee contributions	11,239	10,697
Active Plan members		
Vested	23,367	23,557
Non Vested	12,350	11,934
<b>Total</b>	<b>72,339</b>	<b>70,963</b>

## 2. Schedule of Funding Progress (000 omitted)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued 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)
6/30/98	\$ 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%
6/30/07	\$ 4,293,296	\$ 4,426,051	\$ 132,755	97.0%	\$1,191,130	11.1%
6/30/08	\$ 3,939,059	\$ 4,677,027	\$ 737,968	84.2%	\$1,219,388	60.5%
6/30/09	\$ 3,248,270	\$ 4,930,158	\$1,681,888	65.9%	\$1,274,485	132.0%

3. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at July 1, 2009. Additional information follows.

Valuation date	7/1/2009
Actuarial cost method	Entry age normal
Amortization method	Level dollar amount
Remaining amortization period	26 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, 2009**  
**(000 omitted)**

Assets	<u>June 30, 2009</u>	<u>June 30, 2008</u>
Cash with State Treasurer	\$ 24	\$ 183
Investments at Fair Value	3,243,754	3,934,490
Contributions Receivable	4,678	4,528
Participant Loans Receivable	<u>0</u>	<u>0</u>
Total Assets	3,248,456	3,939,201
Liabilities		
Accrued Expenses and other Payables	<u>186</u>	<u>142</u>
Net Assets for Pension Benefits	\$ 3,248,270	\$ 3,939,059

**Table 6**  
**Statement of Changes in Net Assets for Benefits**  
**For Year ended June 30, 2009**  
**(000 omitted)**

Net Assets for Pension Benefits - Beginning of Year	\$	3,939,059
Additions		
Contributions		
Member		56,360
Employer		131,143
Special Appropriation		2,523
Subtotal		<u>190,026</u>
Investment Income		
Net Appreciation in Fair Value *		(896,621)
Interest		277,604
Subtotal		<u>(619,017)</u>
Other Income		1,595
Annuity Payable		0
Total		<u>(427,396)</u>
Deductions and Transfers		
Benefit Expense		248,770
Refunds of Contributions		10,422
Administrative Expenses		4,257
Transfers (to)/from plans		(56)
Total		<u>263,393</u>
Net Increase		(690,789)
Net Assets for Pension Benefits - End of Year	\$	3,248,270
Investment Return for Year:		
Valuation purposes (assumes mid-year transactions and offsets investment income by investment and administrative expense)		-15.96%
Per Investment Management Board (time-weighted, excluding administrative expense)		-15.64%
* Net of Investment Expense		

Table 7

## Reconciliation of Plan Participants

	Active	Non-Vested Terms	Vested Terms	Retired	Beneficiaries	Total
<b>Census as of July 1, 2008</b>	35,491	10,697	3,863	17,126	3,786	70,963
New Entrants	3,214	578	2			3,794
Returned to Active Status	684	(485)	(186)	(13)		0
Retired	(998)	(17)	(191)	1,206		0
Died	(76)	(37)	(27)	(712)	(194)	(1,046)
Terminated						
- Vested	(585)	(7)	592			0
- Non Vested	(899)	899				0
- Withdrew Contributions	(1,111)	(349)	(145)			(1,605)
- Transfer to Teachers			(3)			(3)
- Transfer to Judges	(2)					(2)
- Transfer to EMSRS	(1)	(1)	(1)			(3)
New Beneficiaries					287	287
QDRO's						0
Adjustments		(39)	(20)	16	(3)	(46)
<b>Census as of July 1, 2009</b>	35,717	11,239	3,884	17,623	3,876	72,339



**Table 8**  
**Summary of Membership and Payroll**

	<u>7/1/2009</u> <u>Valuation</u>	<u>7/1/2008</u> <u>Valuation</u>
<b>Active Members</b>		
State Employees	23,463	23,222
Nonstate Employees	12,254	12,269
Total	<u>35,717</u>	<u>35,491</u>
Average Age	46.5	46.3
Average Service	11.0	11.4
<b>Inactive Members</b>		
Retirees	15,494	15,071
Beneficiaries	3,876	3,786
Disabled Retirees	2,129	2,055
Vested Terminated	3,884	3,863
Nonvested Terminated	11,239	10,697
Total	<u>36,622</u>	<u>35,472</u>
<b>Payroll For Normal Cost</b>		
State Employees	\$ 875,879,000	\$ 831,227,000
Nonstate Employees	<u>398,606,000</u>	<u>388,161,000</u>
Total	\$ 1,274,485,000	\$ 1,219,388,000
<b>PV of Future Payroll</b>	\$ 9,487,473,000	\$ 9,128,867,000
<b>PV Member Contributions</b>	\$ 426,936,000	\$ 410,799,000

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	Total Comp.				
	No./	Total Comp.	No./	Total Comp.	No./	Total Comp.	No./	Total Comp.	No./	Total Comp.	No./	Total Comp.			
Under 25	302	380	4												686
	7,281,824	11,009,740	142,132												18,433,696
25 to 29	340	1,010	228	3											1,581
	8,622,740	31,121,130	7,627,056	91,188											47,462,114
30 to 34	306	843	729	231	6										2,115
	7,661,628	26,288,955	26,589,546	8,669,199	229,986										69,439,314
35 to 39	279	768	772	732	189	8									2,748
	6,826,572	23,715,840	27,347,328	31,088,040	8,735,013	314,864									98,027,657
40 to 44	208	691	659	603	442	190	14								2,807
	5,047,744	20,996,035	22,434,337	24,629,535	20,042,490	8,402,370	648,718								102,201,229
45 to 49	194	683	683	581	480	438	304	70							3,433
	4,700,232	20,349,302	24,022,476	23,126,705	21,313,440	20,575,050	13,885,808	3,000,830							130,973,843
50 to 54	179	618	672	604	489	481	429	612	63						4,147
	4,393,197	19,787,124	23,579,808	22,942,336	21,396,684	21,740,719	20,196,462	28,029,600	2,838,906						164,904,836
55 to 59	131	487	553	545	458	474	298	407	230	11					3,594
	3,341,941	15,504,619	19,340,069	20,785,755	19,205,772	21,199,176	13,926,732	20,650,773	11,489,650	470,657					145,915,144
60 to 64	51	216	309	294	231	222	149	144	125	55					1,796
	1,187,076	7,629,336	10,774,830	12,152,490	9,764,832	9,701,622	6,722,582	7,316,496	6,918,375	2,952,620					75,120,259
65 to 69	14	35	67	62	62	45	31	32	23	15					386
	422,996	1,197,350	2,495,482	2,565,622	2,495,686	2,099,655	1,495,595	1,401,568	1,379,563	746,745					16,300,262
70 & up	4	14	15	26	21	32	17	18	8	15					170
	112,812	587,440	508,380	907,218	743,190	1,549,344	785,179	770,166	333,488	803,235					7,100,452
Total	2,008	5,745	4,691	3,681	2,378	1,890	1,242	1,283	449	96					23,463
	49,598,762	178,186,871	164,861,444	146,958,088	103,927,093	85,582,800	57,661,076	61,169,433	22,959,982	4,973,257					875,878,806

TABLE 9b - NON-STATE  
 NUMBER AND TOTAL ANNUAL COMPENSATION OF ACTIVE PARTICIPANTS

Attained Age	Years of Credited Service														Total No./ Total Comp.	
	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	Total					
	No./ Total Comp.	No./ Total Comp.	No./ Total Comp.	No./ Total Comp.	No./ Total Comp.	No./ Total Comp.	No./ Total Comp.	No./ Total Comp.	No./ Total Comp.	No./ Total Comp.	No./ Total Comp.	No./ Total Comp.				
Under 25	163 2,989,257	248 6,283,576	3 133,935													414 9,406,768
25 to 29	161 3,217,907	496 14,061,600	166 5,265,022	4 142,004												827 22,686,533
30 to 34	144 3,137,760	452 13,494,460	306 10,503,756	111 3,957,483	4 117,968											1,017 31,211,427
35 to 39	134 2,616,618	476 13,316,100	395 13,945,475	246 9,001,878	119 4,601,492	5 188,605										1,375 43,670,168
40 to 44	128 2,799,744	444 12,551,880	367 12,135,956	294 10,864,182	197 7,609,519	108 4,202,388	5 200,675									1,543 50,364,344
45 to 49	109 2,388,735	424 12,078,488	406 12,781,286	285 9,807,990	224 8,332,352	204 8,759,352	137 5,639,468	15 647,880								1,804 60,435,551
50 to 54	109 2,438,766	429 12,455,157	358 11,439,890	316 10,631,188	265 9,935,380	235 9,786,575	201 8,317,380	16 5,879,841	16 714,480							2,070 71,598,657
55 to 59	71 1,519,684	285 7,900,485	344 10,881,408	291 9,898,365	268 9,552,056	185 7,183,180	140 5,688,760	104 4,794,088	52 2,339,220	3 119,130						1,743 59,876,376
60 to 64	25 620,825	176 5,311,504	157 5,104,227	170 5,493,720	137 4,488,394	129 5,060,283	74 3,093,644	53 2,174,219	27 1,213,272	18 990,900						966 33,550,988
65 to 69	15 297,375	68 1,851,436	47 1,358,488	54 1,642,032	42 1,415,106	30 1,240,890	26 1,057,056	10 440,860	6 242,232	12 553,932						310 10,099,407
70 & up	7 108,059	33 982,212	23 568,744	28 890,736	34 963,390	22 694,408	17 536,061	9 326,727	3 189,288	9 446,463						185 5,706,088
Total	1,066 22,134,730	3,531 100,286,898	2,572 84,118,187	1,799 62,329,578	1,290 47,015,657	918 37,115,681	600 24,533,044	332 14,263,615	104 4,698,492	42 2,110,425						12,254 398,606,307

TABLE 10

**DISTRIBUTION OF THE NUMBER AND AVERAGE MONTHLY BENEFITS  
OF RETIRED PARTICIPANTS AS OF JULY 1, 2009**

Current Age	Service retirees		Beneficiaries		Disabled retirees		Total	
	Number	Average Monthly Benefit	Number	Average Monthly Benefit	Number	Average Monthly Benefit	Number	Average Monthly Benefit
Under 30	-	-	14	592	-	-	14	592
30-34	-	-	9	747	-	-	9	747
35-39	-	-	11	832	9	925	20	874
40-44	-	-	29	704	30	1,122	59	917
45-49	-	-	73	814	101	1,085	174	971
50-54	5	893	162	767	277	1,110	444	982
55-59	1,192	1,899	270	867	456	1,096	1,918	1,563
60-64	2,883	1,563	374	756	520	988	3,777	1,404
65-69	3,215	1,208	464	683	320	596	3,999	1,098
70-74	2,842	976	515	625	213	456	3,570	894
75-79	2,230	795	586	532	90	405	2,906	730
80-84	1,759	700	664	496	68	416	2,491	638
85-89	947	589	443	426	36	370	1,426	533
90-94	332	481	195	343	8	344	535	428
95 and over	89	438	67	369	1	283	157	408
<b>Total</b>	<b>15,494</b>	<b>1,109</b>	<b>3,876</b>	<b>595</b>	<b>2,129</b>	<b>865</b>	<b>21,499</b>	<b>992</b>
<b>Total annual benefits</b>		<b>206,261,840</b>		<b>27,667,073</b>		<b>22,097,573</b>		<b>256,026,485</b>

TABLE 11

**DISTRIBUTION OF THE NUMBER AND AVERAGE  
MONTHLY BENEFITS OF PARTICIPANTS ENTITLED  
TO DEFERRED BENEFITS AS OF JULY 1, 2009**

<b>Deferred Vested</b>		
<b>Current Age</b>	<b>Number</b>	<b>Average Monthly Benefit</b>
Under 30	42	167
30-34	179	194
35-39	405	233
40-44	489	297
45-49	606	383
50-54	807	457
55-59	828	415
60-64	433	378
65-69	65	315
70-74	22	359
75-79	7	322
80-84	-	-
85-89	1	16
90-94	-	-
95 and over	-	-
Total	3,884	366
<b>Total annual benefits</b>		<b>17,043,959</b>

**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 4.5% 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 11% of members' compensation to the retirement system (10½% prior to July 1, 2009).

### 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 one 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 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 one 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 actuarially reduced for the number of years by which 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. 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, 2009

**B. Funding Method**

The valuation is prepared under the Entry Age Normal 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 value of benefits projected from contributory service alone. A 10.8% load is used for males and a 2.6% 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**

<b>Ag</b>	<b>Male</b>	<b>Female</b>	<b>Ag</b>	<b>Male</b>	<b>Female</b>	<b>Ag</b>	<b>Male</b>	<b>Female</b>
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**

<b>Ag</b>	<b>Male</b>	<b>Female</b>	<b>Ag</b>	<b>Male</b>	<b>Female</b>	<b>Ag</b>	<b>Male</b>	<b>Female</b>
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)**

<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>
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)**

<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>
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)**

<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>
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)**

<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>
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)**

<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>
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)**

<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>
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)**

<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>
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)**

<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>
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)**

<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>
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)**

<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>
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)**

<b>Ag</b>	<b>Male</b>	<b>Female</b>	<b>Ag</b>	<b>Male</b>	<b>Female</b>	<b>Ag</b>	<b>Male</b>	<b>Female</b>
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)**

<b>Ag</b>	<b>Male</b>	<b>Female</b>	<b>Ag</b>	<b>Male</b>	<b>Female</b>	<b>Ag</b>	<b>Male</b>	<b>Female</b>
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**

<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Ag</u>	<u>Male</u>	<u>Female</u>
19	0.00000	0.00000	33	0.00052	0.00092	47	0.0047	0.00240
20	0.00010	0.00010	34	0.00056	0.00096	48	0.0053	0.00260
21	0.00012	0.00018	35	0.00060	0.00100	49	0.0059	0.00280
22	0.00014	0.00026	36	0.00078	0.00110	50	0.0065	0.00300
23	0.00016	0.00034	37	0.00096	0.00120	51	0.0070	0.00380
24	0.00018	0.00042	38	0.00114	0.00130	52	0.0075	0.00460
25	0.00020	0.00050	39	0.00132	0.00140	53	0.0080	0.00540
26	0.00024	0.00056	40	0.00150	0.00150	54	0.0085	0.00620
27	0.00028	0.00062	41	0.00190	0.00160	55	0.0090	0.00700
28	0.00032	0.00068	42	0.00230	0.00170	56	0.0092	0.00750
29	0.00036	0.00074	43	0.00270	0.00180	57	0.0094	0.00800
30	0.00040	0.00080	44	0.00310	0.00190	58	0.0096	0.00850
31	0.00044	0.00084	45	0.00350	0.00200	59	0.0098	0.00900
32	0.00048	0.00088	46	0.00410	0.00220	60	0.0100	0.01000

**State and Nonstate Retirement Decrements**

<u>Age</u>	<u>Male</u>	<u>Female</u>
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