

**GOVERNMENT OF THE VIRGIN ISLANDS  
RETIREMENT SYSTEM**

**Actuarial Valuation  
as of September 30, 2006**

July 31, 2009

The Board of Trustees  
Employees Retirement System of the  
Government of the Virgin Islands  
GERS Complex  
St. Thomas, Virgin Islands 00802

**Re: Actuarial Certification**

Dear Members of the Board:

We were engaged to perform an actuarial valuation of the Employees Retirement System of the Virgin Islands.

This is to certify that we have prepared an actuarial valuation of that System as of September 30, 2006.

To the best of our knowledge, this report is complete and accurate and has been prepared in accordance with accepted actuarial principles and practices. The undersigned is a Fellow of the Society of Actuaries, a Member of the American Academy of Actuaries and an Enrolled Actuary.

**Purpose of Actuarial Valuation**

The actuarial valuation (i) determines the employer contributions necessary to fund the Retirement System on an actuarial reserve basis, (ii) describes the current condition of the Retirement System, and (iii) analyzes changes in the actuarially determined contribution rates.

**Contribution Requirements**

The contribution rates are set by statute and as of September 30, 2006, the employer rate is 14.5% of total payroll. These current rates, combined with the employee contribution rates (averaging 8.3% of total payroll), are not sufficient to meet the 43.2% of payroll cost of the System on an actuarial reserve basis, as required by law. To meet the full actuarial cost, the contribution rates must be increased so that, in total, the System would receive an additional contribution of 20.4% of payroll from some combination of member or employer sources. As a dollar amount, the additional required contribution for the year is \$80.6 million.

### **Consequences of Not Increasing Contribution Rates**

The continuation of statutory contributions being less than the actuarially required amounts will result in:

- Actuarially required amounts increasing in future years to make up for current and prior years' contribution deficits.
- The unfunded actuarial liabilities of the plan continuing to increase.
- A continual decrease in the funding ratio that measures the progress being made towards the funding of benefits accruing from year to year.
- Benefit security to participants and the System's ability to pay promised benefits being at risk, with the long-term viability of the System being in jeopardy.

Based on a cash flow analysis, the System is projected to run out of assets within 14-19 years. Without additional funding, the viability of the System is in serious jeopardy and additional funding must be given to the System.

### **Benefit Provisions**

Except as indicated below, the benefit provisions reflected in the valuation are only those in effect on September 30, 2006. The following were significant changes in plan provisions from the prior actuarial report:

- Except for judges, a new Tier 2 has been added which provides for a reduced benefit formula for all employees hired on or after 10/01/2005.
- Employee contribution rates have increased for all Tier 2 participants hired on or after 10/01/2005.
- Final average salary is defined as the average of highest annual salary up to a maximum of \$65,000 (except for judges) for any 5 years in the last 10 years. (Previously, 3 year averaging period).

### **Assumptions and Methods**

The actuarial assumptions and methods are based upon periodic analysis of the System's experience and recommended by the actuary and adopted by the Board of Trustees.

Since the last actuarial valuation, the mortality table has been changed to the RP-2000 Combined Healthy Male/Female Table set forward 2 years. The prior table was the 1971 Group Annuity Mortality Table.

## **Participant Data**

We have relied, without audit, on the employee census data provided by the Retirement System. This year's data for active members has reflected clean-up efforts by the System. As a result, additional members who were hired before September 30, 2003 were first reported with the valuation and a number of members who should have not been included in prior valuations were removed. Also, there were retirees who were first reported who were retired before 2003. Benefit information for terminated vested members were not provided and we had to make assumptions to estimate the amounts. The System needs to continue its efforts to automate the participant data reporting and retention and to provide consistent data for the actuarial valuation.

## **Financial Data**

Asset information was provided by the System's auditors.

The actuarial value of assets as of September 30, 2006 was \$1,421.1 million compared to the market value of \$1,477.5 million. The difference is an investment gain that will be recognized in the determination of the actuarial value of assets in the next four years. It should be understood that earning the assumed rate of investment return of 8% per year on a market value basis will result in gains on the actuarial value of assets in the next four years due to the existence of current unrecognized investment gains. This, of course, is based on the System earning 8% market returns for years on and after September 30, 2006.

Actuarial calculations were made with respect to the 10,739 active members, 123 terminated vesteds, 440 inactive members with an account balance, 7,015 retirees and 267 surviving beneficiaries.

The full actuarial valuation report follows and provides additional information and details on the Employees Retirement System of the Virgin Islands.

Sincerely,

A handwritten signature in cursive script, appearing to read "Howard Rog", written in black ink. The signature is fluid and somewhat stylized, with a long horizontal stroke at the end.

Howard Rog, FSA, MAAA, EA  
Senior Vice President and Actuary

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## **I. INTRODUCTION AND SUMMARY**

The Virgin Islands Retirement Code requires that benefits promised under the law to members of the Virgin Islands Retirement System be funded on an “actuarial reserve” basis. An actuarial reserve basis generally means that the retirement benefits are funded during employees’ active employment so that by the time they retire, the benefits have been funded in advance. In order to establish the standard for this funding basis, an actuarial valuation is prepared periodically. The actuarial valuation determines the contribution rate necessary to meet the cost of benefits currently being accrued and to pay a portion of the unfunded liabilities.

### **Contribution Requirements**

The actuarial valuation as of September 30, 2006 indicates that the current government contribution rate of 14.5% of payroll combined with the member contribution rates are not sufficient to meet the cost of the System on an actuarial reserve basis, as required by law. To meet the full actuarial cost (including the system’s current cost and the amount necessary to amortize the unfunded actuarial liability over 20 years from October 1, 2006), the contribution rates must be increased so that, in total, an additional contribution of 20.4% of payroll or \$80.6 million would be necessary each year from some combination of member and/or government sources.

The net increase in the additional required contribution since the prior valuation is summarized on the next page:



**Total Contributions Required  
As a Percent of Payroll**

Actuarial valuation as of September 30, 2003	40.3 %
Increase as a result of statutory contributions less than actuarially required during the three-year period ending September 30, 2006	4.8%
Increase as a result of investment return less than assumed	1.8%*
All other changes including significant data changes, plan changes, and all other actuarial gains/losses	1.2%
Impact from increase in aggregate payroll	- 4.9%
Actuarial valuation as of September 30, 2006	43.2%
Employee and Employer Statutory contribution	<u>22.8%</u>
Additional required contribution	20.4%

\* Based on actuarial value of assets

The deficits in the statutory contributions as compared to the actuarially determined rate for the last nine actuarial valuations are summarized on the next page and illustrated graphically in Chart 1.

**Actuarial Valuation  
as of September 30:**

**Additional Required Contributions  
(Deficit) as a Percent of Payroll**

1991	3.40%
1993	2.16
1994	3.94
1995	5.48 <sup>(1)</sup>
1997	6.20
1999	6.63
2001	17.34
2003	17.52
2006	20.42

(1) Plus administrative expenses for the year.

**Consequences of Not Increasing Contribution Rates**

The continuation of statutory contributions being less than the actuarially required amounts will result in:

- Actuarially required amounts increasing in future years to make up for current and prior years contribution deficits.
- The unfunded actuarial liabilities of the plan continuing to increase.
- A continual decrease in the funding ratio that measures the progress being made towards the funding of benefits accruing from year to year.
- Benefit security to participants and the System's ability to pay promised benefits being at risk, with the long-term viability of the System being in jeopardy.

Based on a cash flow analysis, the System is projected to run out of assets within 14-19 years without additional funding.

**Assets Versus Present Value of Actuarial Accrued Liabilities (Funded Status)**

The ratio of the assets at actuarial value of assets to the present value of Actuarial Accrued Liabilities was 53.5% at September 30, 2006, compared to 59.4% at September 30, 2003. The ratio of market value of assets to the Actuarial Accrued Liability was 55.6% at September 30, 2006 as compared to 56.2% at September 30, 2003.

The comparisons of the actuarial value of the assets of the Retirement System to the Actuarial Accrued Liability of accrued benefits are illustrated in Chart 2 and Chart 3.

### **Participant Data**

The number of contributing members increased by 6.99% from 10,037 as of September 30, 2003 to 10,739 as of September 30, 2006, while the total covered payroll increased by 16.6% from \$338.4 million to approximately \$394.6 million. Table 1, which follows, shows the change in retirement membership. Chart 4 graphically presents the data of Table 1.

The number of retired members and surviving beneficiaries receiving benefits increased by 19.5% from 6,093 as of September 30, 2003 to 7,282 as of September 30, 2006. Annual payments have increased by 28.5% to \$162.2 million per year from \$126.2 million in the three-year period.

Assets at actuarial value of the System over the three-year period generated an actuarial loss (6.6% average return as compared to the 8% assumed return) of approximately \$53.7 million. The actuarial value as of September 30, 2006 was \$1,421.1 million.

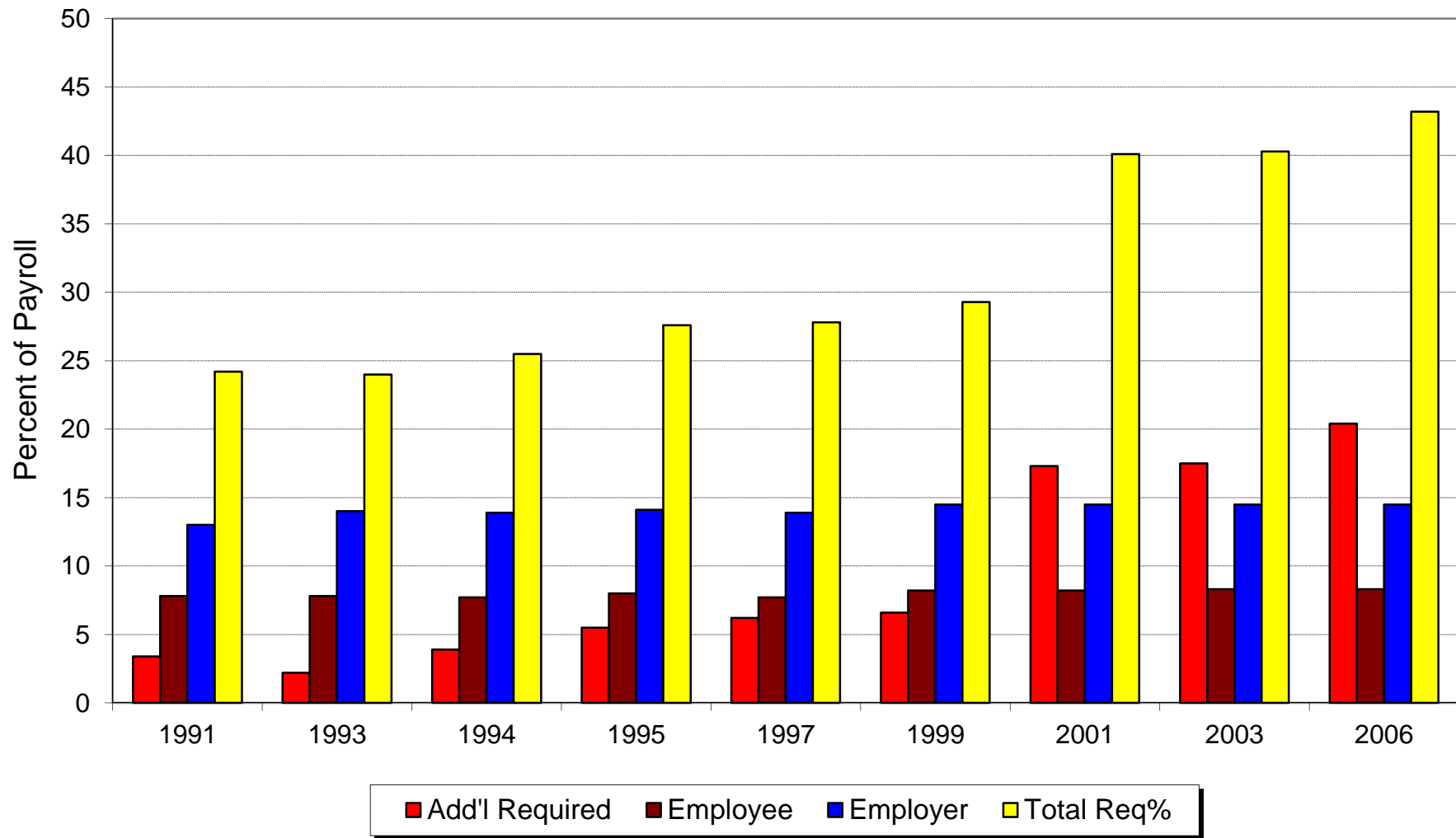
The market value of assets is \$1,477.5 million and represents an average three year rate of return of 10.0% for the period ending September 30, 2006.

### **Factors Not Reflected in the Actuarial Valuation**

The September 30, 2006 valuation does not reflect any Legislative plan provision enacted after September 30, 2006 or any investment losses incurred after that date.

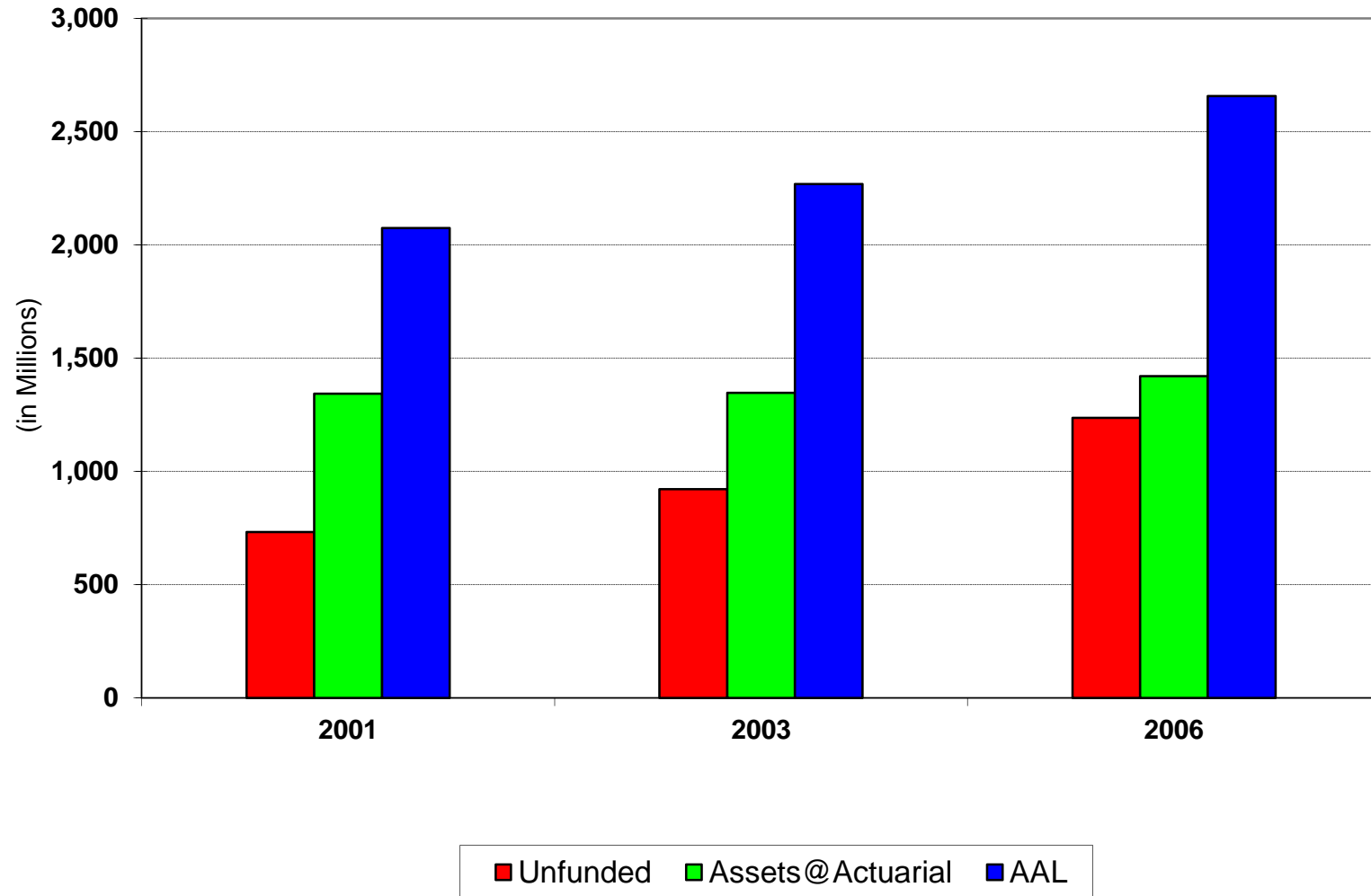
The sections that follow discuss the basic elements involved in our actuarial valuation of the Employees Retirement System of the Government of the Virgin Islands as of September 30, 2006, the existing provisions of the System, the characteristics of System members, and the assumptions applied in our actuarial cost calculations, respectively. The results of our actuarial valuation are reviewed in Section V of the report.

**Chart 1**  
Contributions Percentage

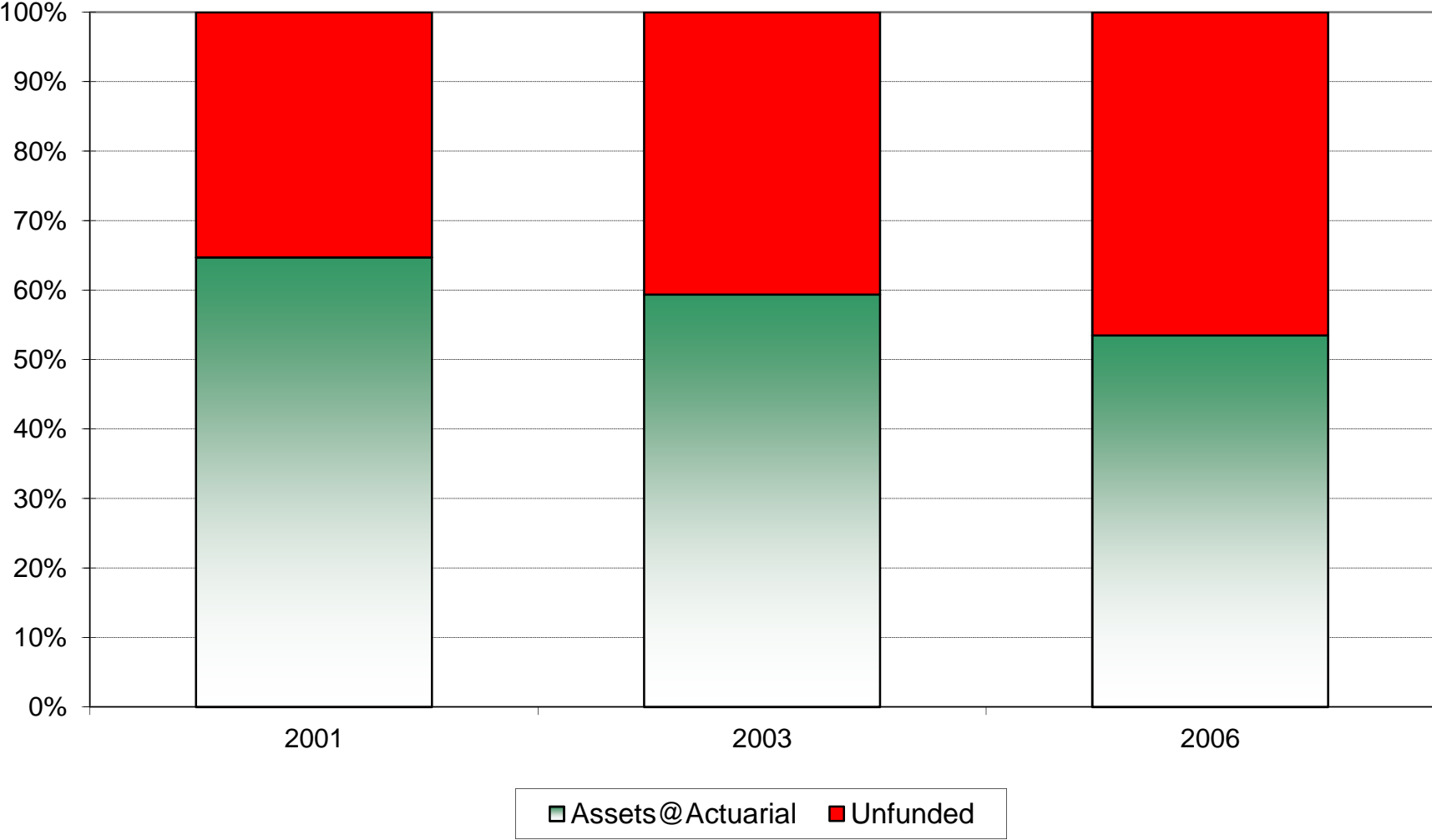


## Chart 2

### Funding Status of Actuarial Accrued Liabilities



**Chart 3**  
Actuarial Accrued Liability Funded Ratio



**Table 1  
Membership in System**

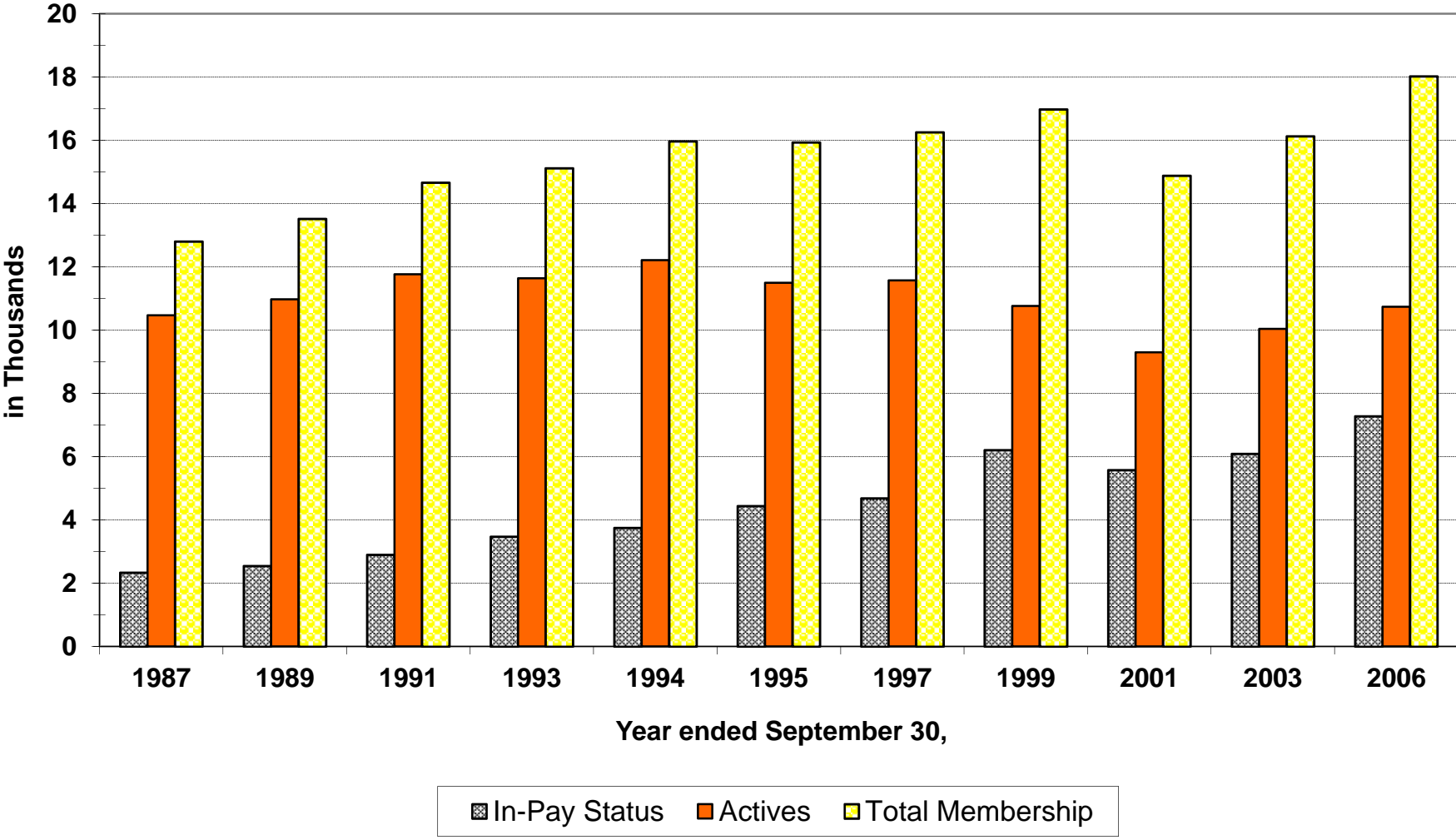
<b>As of September 30:</b>	<b>Active Members</b>	<b>Retired Members and Beneficiaries</b>	<b>Total Members</b>
1983	9,914	1,460	11,374
1984	9,424	1,928	11,352
1985	9,767	2,081	11,848
1986	9,957	2,201	12,158
1987	10,466	2,338	12,804
1988	10,601*	2,445	13,046
1989	10,972	2,546	13,518
1990	N/A**	N/A**	N/A**
1991	11,766	2,901	14,667
1993	11,642	3,473	15,115
1994	12,116	3,751	15,867
1995	11,493	4,438	15,931
1997	11,572	4,682	16,254
1999	10,763	6,212	16,975
2001	9,303	5,581	14,884
2003	10,037	6,093	16,130
2006	10,739	7,282	18,021

Note: In addition, there are inactive members with a right to a deferred vested pension or a return of employee contributions.

\* Estimated

\*\* N/A – Not Available

**Chart 4**  
Growth in Total Membership





## **II. SUMMARY OF BENEFIT PROVISIONS**

The Employees' Retirement System of the Virgin Islands is a "defined benefit" program. A "defined benefit" program is one in which members' benefits, as provided under law, are based solely on their age, years of service, final average salary and category of employment. Since their benefits are defined by law and are not dependent on the amount of employer contributions, investment income or assets values, the term "defined benefit" is used to describe this type of retirement plan. (This is different from a "defined contribution" plan in which each member's benefits are directly related to the amount of contributions, investment income and assets accumulated on their behalf.)

The following is a summary of the provisions currently in effect as of September 30, 2006.

### **Service Retirement**

Requirements:

Regular	Age 60 with a minimum of 10 years of credited service or any age with a minimum of 30 years of credited service.
Public Safety	Age 55 with 10 years of credited service or 20 years of credited service at any age
Legislature	Age 50 with 6 years of credited service or 20 years of service at any age.
Judges	Age 50 with 6 years of credited service.

Benefit Formula:

#### **Tier 1 Employees (Hired before October 1, 2005):**

Regular	2.5% final average salary <sup>1</sup> per year of credited service to a maximum of 100%.
Public Safety	3% of final average salary <sup>1</sup> per year of service to a maximum of 90%.
Legislature	2.5% of final average salary <sup>1</sup> for years 1 to 6, 3.0% of final average salary <sup>1</sup> for years 7 to 12, 4.0% of final average salary <sup>1</sup> for years over 12, to a maximum of 75%.
Judges	5.0% of highest compensation (no cap) per year of service to a maximum of 100% after 20 years.

<sup>1</sup> Final Average Salary is average of highest annual salary up to a maximum of \$65,000 (except for judges and legislators) for any five years in the last 10 years.

Tier 2 Employees (Hired on or after October 1, 2005):

Regular	1.75% final average salary <sup>2</sup> per year of credited service to a maximum of 100%.
Public Safety	2.10% of final average salary <sup>2</sup> per year of service to a maximum of 90%.
Legislature	3.5% of final average salary <sup>2</sup> for years 1 to 6, 4.0% of final average salary <sup>2</sup> for years 7 to 12, 4.5% of final average salary <sup>2</sup> for years 13 to 19, 5.0% of final average salary <sup>2</sup> for years over 20, to a maximum of 100%.

**Early Retirement**

Requirements:

Regular	Age 50 and 10 years of credited service.
Public Safety	Age 50 and 10 years of credited service.

Benefit: Service retirement benefit reduced by .325% for each month (3.9% per year) age is below age 60 for regular members.

**Deferred Retirement (Vesting)**

Requirements: 10 years of credited service and leave contributions in System.

Benefit: Service benefit accrued at termination is payable at age 60 (age 55 in the case of police and fire).

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<sup>2</sup> Final Average Salary is average of highest annual salary up to a maximum of \$65,000 (except for judges and legislators) for most recent 5 years in the last 10 years.

## **Disability Retirement**

### Duty-connected disability

Requirements: Total and permanent disability as a direct result of the performance of duty.

#### Tier 1 Employees:

Benefit: Annuity of 75% of salary in effect on date of disability less Worker's Compensation payments.

#### Tier 2 Employees:

Benefit: Annuity of 52.5% of salary in effect on date of disability less Worker's Compensation payments.

### Non-duty disability

Requirements: 9 years of credited service and totally and permanently disabled.

#### Tier 1 Employees:

Benefit: 2% of average compensation for each year of credited service at date of disability subject to a minimum of 20% and to a maximum of 60% of average compensation.

#### Tier 2 Employees:

Benefit: 1.4% of average compensation for each year of credited service at date of disability subject to a minimum of 14% and to a maximum of 42% of average compensation.

## **Pre-Retirement Death Benefits**

### Duty-connected death

Requirements: Death in service as a direct result of the performance of duty.

#### Tier 1 Employees:

Benefits: Annuity of 40% of salary in effect on date of death to widow plus 10% of salary for each child up to age 18 to a maximum family benefit of 60% of salary. If no widow, 10% of salary is payable on behalf of each child under age 18 to a maximum family benefit of 50%. If no widow or children, each dependent parent is entitled to 25% of salary.

Tier 2 Employees:

Benefits: Annuity of 28% of salary in effect on date of death to widow plus 7% of salary for each child up to age 18 to a maximum family benefit of 42% of salary. If no widow, 7% of salary is payable on behalf of each child under age 18 to a maximum family benefit of 35%. If no widow or children, each dependent parent is entitled to 17.5% of salary.

Non-duty death

Tier 1 Employees:

Death In Service: Accumulated contributions of deceased member to designated beneficiary.

Death In Retirement: a lump-sum payment equal to the excess of the annual salary of the member at the date of retirement, plus the member's total contributions, over the amounts received by the member in annuity payments up the time of his death, must be paid to the member's designated beneficiary.

If, at the time of death, the member was eligible for a service or early retirement annuity, the surviving spouse, if any, can elect a 100% survivor annuity based on the benefit which would have been payable to the member had they retired the date before they died.

Tier 2 Employees:

Death In Service: Accumulated contributions of deceased member to designated beneficiary.

Death In Retirement: a lump-sum payment equal to the excess of the annual salary of the member at the date of retirement, plus the member's total contributions, over the amounts received by the member in annuity payments up to the time of his death, must be paid to the member's designated beneficiary.

**Post-Retirement Death Benefits**

No Option Elected

Lump sum payment equal to the excess of the sum of contributions plus annual salary at retirement (maximum \$10,000) over the total of benefits paid.

Optional Benefits  
(Available only to service  
and early retirements and  
reduced to actuarial  
equivalent of annuity  
without option):

50% survivor annuity      Upon death of retired member, 50% of adjusted benefit continues to beneficiary.

100% survivor annuity      Upon death of retired member, 100% of adjusted benefit continues to beneficiary.

**Post-Retirement Adjustments**

Benefits increased by 1-1/2% of the original retirement benefit each year after attainment of age 60. Disability benefits are also increased by 1% per year prior to age 60.

Annual increases do not apply to survivor annuitants.

**Severance Benefit**

Refund of contributions with 4% annual interest, if no other benefit is payable.

**Eligibility**

Completion of 1 month of service.

Service credit may be obtained for the first year by paying the contribution applicable for that period.

**Membership Service**

All years of service after October 1, 1959.

**Prior Service Credit**

Years of service prior to October 1, 1959 that were creditable under prior retirement systems or were not credited but for which the applicable contribution is made, except:

- (1) Service on a contractual or a fee basis.
- (2) Service represented by a refund received by the member unless repaid within 5 years of membership.

**Military Service Credit**

Maximum of 10 years military service credit either as prior service or membership service.

**Employee Contributions**

	Contribution Rate	
	Tier I	Tier II
Members of the Legislature	9.0%	11.0%
All other regular employees	8.0	8.5%
Public Safety employees	10.0	10.625%
Hazardous duty employees who elect early retirement program	10.0	10.625%
Judges	11.0	11.0%

**Employer Contributions**

The amount which, when added to the total of employee contributions, will be sufficient to meet the actuarial cost. Current employer contributions are fixed as of April 1, 1993 at a percentage of membership payroll and amount to 14.5%.

### **III. MEMBERSHIP CHARACTERISTICS**

Membership data required for the actuarial calculations was collected by the Retirement System staff from various government agencies and provided to us via e-mail. Of the 11,036 active employee records provided, 269 were excluded because they were duplicate records and 28 were excluded because their date of hire was after the valuation date of September 30, 2006. Table 2 lists the number of active members received from those agencies that provided data. The primary information supplied was date of birth, date of hire, sex, salary and contribution account balances.

In addition to the data provided for active members, the Retirement System staff provided data on retired members, beneficiaries and inactive members with a right to a deferred vested pension or a return of employee contributions. Deferred vested benefits for inactive members were not provided and had to be estimated from years of service and contribution account balances.

#### **Participant Data**

We have relied, without audit, on the employee census data provided by the Retirement System. This year's data for active members has reflected clean-up efforts by the System. As a result, additional members who were hired before September 30, 2003 were first reported with the valuation and a number of members who should have not been included in prior valuations were removed. Also, there were retirees who were first reported who were retired before 2003. Benefit information for terminated vested members were not provided and we had to make assumptions to estimate the amounts.

#### **Active Members**

Age, service, sex, salary and contribution account balances were reported for active members as of September 30, 2006. A total of 9,321 regular employees and 1,398 public safety employees, 13 legislature employees and 7 judges. Of the 10,739 active members, 10,041 were Tier 1 and 698 were Tier 2.

The characteristics of active members as of September 30, 2006 compared to September 30, 2003 and 2001 are as follows:

	<u>September 30,</u>		
	<u>2006</u>	<u>2003</u>	<u>2001</u>
Number	10,739	10,037	9,303
Average age*	45.1	45.2	44.4
Average credited service*	14.0	14.5	13.3
Average salary*	\$36,744	\$33,720	\$32,130

Over the past three years, the number of participants has increased, the average age decreased, average service decreased, and the average salary increased by 9.0%.

The schedule below compares the characteristics of active members by categories as of September 30, 2006.

	<u>Regular Members</u>	<u>Public Safety Members</u>	<u>Legislature</u>	<u>Judges</u>
Number	9,321	1,398	13	7
Average age*	45.6	41.9	48.6	57.7
Average credited service*	14.0	13.7	15.5	16.0
Average salary	\$36,429	\$39,022	\$65,769	\$136,429

\* Reflects only members for whom information regarding either age, service or salary was known. Salaries are limited to \$65,000 except for Judges and Legislators.



Regular members are, on the average, older with longer service than public safety members. This is a reflection of both the earlier retirement of public safety members and of their younger ages at first employment.

Table 3 shows the distribution of active members as of September 30, 2006 by age, years of service and average salary.

Table 4 shows the number of active members by salary groupings ranging from under \$10,000 to \$65,000 and over.

### **Inactive Members**

Age, service, sex, employee contribution account balance, and vested or non-vested status were reported for inactive members as of September 30, 2006.

Members who terminate employment with 10 years of credited service may leave their contributions in the System and begin receiving benefits at a later date. As of September 30, 2006 there were 123 inactive vested members with estimated annual benefits of \$523,658.

In addition to the inactive vested members, there were 440 non-vested inactive members as of September 30, 2006 entitled to a refund of their accumulated contributions. The total contribution in the accounts of non-vested inactive members was estimated to be about \$1.4 million on September 30, 2006.

### **Retired Members and Beneficiaries**

During the three-year period ended September 30, 2006, a total of 1,011 members were awarded benefits. The awards are distributed by type and amount in Table 5-A, and by type and age at effective date in Table 5-B.

There were 7,282 pensioners and beneficiaries receiving total semi-monthly benefits of \$6,760,156 as of September 30, 2006 as compared to 6,093 pensioners and beneficiaries receiving benefits of \$5,256,411 as of September 30, 2003. Tables 6-A and 6-B show a distribution of pensioners and beneficiaries in force by type and amount, and Tables 7-A and 7-B show a distribution by type and age. Table 8 shows the progress of the pension rolls during the twenty fiscal periods ending September 30, 2006. Chart 5 shows the growth of

the pension benefits and expenses vs. total contributions. Beginning with the year ending September 30, 1996, benefits and expenses have exceeded total contributions.

The liability for future benefits to pensioners and beneficiaries is \$1,473.4 million as of September 30, 2006, as compared with \$1,185.0 million as of September 30, 2003. This is the lump sum amount needed to pay lifetime benefits to pensioners and beneficiaries as of that date. The lump sum takes account of interest at the assumed rate of 8.0% to be earned before the amounts are paid. This compares with net assets of \$1,421.1 million at actuarial value as of September 30, 2006.

The ratio of the actuarial value of assets to retiree liabilities has decreased since the last actuarial valuation. As of September 30, 2006, assets are 97% of retiree liability, as compared to 114% in the prior valuation. Chart 6 at the end of this section compares retiree liabilities and assets at actuarial value over several years.

**Table 2**  
**Government of the Virgin Islands**  
**Source of Active Data**

Agency	Number of Employees
Adjutant General/Nat	73
Agency Info is Missing	332
Board of Education	11
Board of Elections	12
Bureau of Audit & Co	13
Bureau of Economic Reform	4
Bureau of Motor Vehicles	6
Department of Agriculture	70
Department of Education	2,904
Department of Finance	125
Department of Health	554
Department of Human	793
Department of Justice	372
Department of Labor	168
Department of Public	317
Department of Tourism	33
Department of Planning & N	237
District Court/Judic	4
Division of Personnel	47
East End Medical Center	17
Economic Development	23
GERS	83
Governor's Office	89
Housing, Parks & Recreation	148
Industrial Park	3
Internal Revenue Bureau	152
Juan F. Luis Hospital	436
Law Review Commission	2
Legislature of the Virgin Islands	252
Licensing & Consumer Affairs	53
Lt. Governor's Office	132
Office of Management	40
Office of the Public	19
Property & Procurement	111
Public Employees' Re	7
Public Television	40
Roy L. Schneider Hospital	496
Superior Court of the Virgin Islands	240
University of the Virgin Islands	227
V.I. Energy Office	1
V.I. Fire Services	262
V.I. Port Authority	279
Veteran's Affairs of	2
V.I. Housing Authority	265
V.I. Housing Finance Authority	2
V.I. Lottery Office	3
V.I. Police Department	641
V.I. Waste Management	58
Water and Power Authority	579
Other	2
<b>Grand Total</b>	<b>10,739</b>

**Table 3**

**Number and Average Salaries of Employees in Active Service  
as of September 30, 2006  
by Age and by Years of Service**

Age	Total	Years of Service								
		0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 and over
Total.....	10,739 \$36,744	2,319 \$30,179	1,803 \$33,492	1,766 \$35,556	1,749 \$37,756	1,114 \$42,741	1,217 \$42,285	473 \$46,347	237 \$47,712	61 \$50,703
Under 20 .....	17 21,060	17 21,060	- -	- -	- -	- -	- -	- -	- -	- -
20 - 24 .....	290 25,002	270 24,908	11 25,997	6 28,195	1 25,002	2 22,660	- -	- -	- -	- -
25 - 29 .....	728 29,173	483 28,544	192 30,698	41 30,042	2 22,231	5 23,507	3 37,019	1 33,300	1 19,553	- -
30 - 34 .....	1,060 32,200	396 30,402	368 32,194	250 35,163	37 32,702	2 31,303	2 21,929	3 25,052	2 31,582	- -
35 - 39 .....	1,511 34,523	350 30,777	362 32,412	449 36,674	323 38,263	18 31,401	2 29,738	4 24,801	3 36,744	- -
40 - 44 .....	1,665 37,246	262 31,975	270 35,030	337 36,455	491 39,730	240 41,184	55 39,285	2 43,464	4 35,192	4 28,352
45 - 49 .....	1,743 38,060	211 32,650	211 35,134	206 34,405	357 37,552	356 44,240	369 39,160	30 40,762	2 45,869	1 29,513
50 - 54 .....	1,538 41,532	147 34,105	168 36,703	160 37,972	214 37,890	211 44,489	382 45,304	208 46,003	46 47,425	2 34,747
55 - 59 .....	1,210 41,478	105 33,930	109 34,422	155 35,807	164 37,802	154 43,582	255 44,258	155 48,917	98 48,500	15 52,764
60 - 64 .....	700 37,902	56 33,095	80 34,080	105 30,808	110 32,386	92 39,043	118 39,991	54 48,148	63 49,444	22 51,297
65 - 69 .....	207 37,997	15 29,573	23 37,070	46 32,926	36 32,645	26 41,676	23 41,211	10 45,524	17 45,160	11 56,809
70 and over .....	70 37,683	7 23,385	9 28,666	11 35,111	14 31,251	8 51,918	8 47,214	6 33,126	1 65,000	6 55,933

**Table 4**  
**Participants in Active Service as of September 30, 2006**  
**by Annual Compensation**

Annual Salary	Number of Members
Total .....	10,739
Under \$10,000 .....	7
\$10,000 - 14,999 .....	18
15,000 - 19,999 .....	1,161
20,000 - 24,999 .....	1,390
25,000 - 29,999 .....	1,593
30,000 - 34,999 .....	1,599
35,000 - 39,999 .....	1,244
40,000 - 44,999 .....	830
45,000 - 49,999 .....	734
50,000 - 54,999 .....	589
55,000 - 59,999 .....	428
60,000 - 64,999 .....	312
65,000 and over .....	834

**Table 5-A**

**Pensions Awarded in Three-Year Period Ended September 30, 2006  
by Type and by Semi-Monthly Amount**

Semi-Monthly Amount	Total	Type of Pension				
		Service	Duty Disability	Non-Duty Disability	Survivors*	Duty Death
Total .....	1,011	987	13	11	-	-
Less than \$50 .....	-	-	-	-	-	-
\$ 50 – 99 .....	-	-	-	-	-	-
100 – 149 .....	3	3	-	-	-	-
150 – 199 .....	12	11	-	1	-	-
200 – 249 .....	26	25	-	1	-	-
250 – 299 .....	33	33	-	-	-	-
300 – 349 .....	32	30	-	2	-	-
350 – 399 .....	20	19	-	1	-	-
400 – 449 .....	20	16	1	3	-	-
450 – 499 .....	24	22	1	1	-	-
500 – 549 .....	19	19	-	-	-	-
550 – 599.....	29	28	-	1	-	-
600 – 649.....	29	28	1	-	-	-
650 – 699.....	39	39	-	-	-	-
700 – 749.....	32	32	-	-	-	-
750 – 799.....	30	30	-	-	-	-
800 – 849.....	28	28	-	-	-	-
850 – 899.....	31	30	1	-	-	-
900 – 949.....	34	34	-	-	-	-
950 – 999.....	41	41	-	-	-	-
1,000 and over .....	529	519	9	1	-	-

*\*Survivors of active members and pensioners.*

**Table 5-B**

**Pensions Awarded in Three-Year Ended September 30, 2006  
by Type and by Age on Effective Date**

Age on Effective Date	Total	Type of Pension				
		Service	Duty Disability	Non-Duty Disability	Survivors*	Duty Death
Total .....	1,011	987	13	11	-	-
Under 45 .....	20	10	6	4	-	-
45 - 49 .....	41	34	4	3	-	-
50 - 54 .....	158	151	3	4	-	-
55 - 59 .....	251	251	-	-	-	-
60 - 64 .....	348	348	-	-	-	-
65 - 69 .....	152	152	-	-	-	-
70 - 74 .....	33	33	-	-	-	-
75 - 79 .....	8	8	-	-	-	-
80 - 84 .....	-	-	-	-	-	-
85 and over .....	-	-	-	-	-	-

*\*Survivors of active members and pensioners.*

**Table 6-A**

**Pensions in Force on September 30, 2006  
by Type and by Semi-Monthly Amount**

Semi-Monthly Amount	Total	Type of Pension		
		Service	Duty Disability	Non-Duty Disability
Total .....	7,007	6,731	84	192
Less than \$50 .....	-	-	-	-
\$ 50 – 99 .....	8	7	-	1
100 – 149 .....	89	55	-	34
150 – 199 .....	202	180	-	22
200 – 294 .....	273	247	1	25
250 – 299 .....	311	284	2	25
300 – 349 .....	281	261	-	20
350 – 399 .....	243	231	-	12
400 – 449 .....	276	262	2	12
450 – 499 .....	263	248	4	11
500 – 549 .....	261	256	2	3
550 – 599.....	255	245	3	7
600 – 649.....	243	236	5	2
650 – 699.....	234	227	6	1
700 – 749.....	240	235	2	3
750 – 799.....	213	206	4	3
800 – 849.....	218	212	5	1
850 – 899.....	209	202	3	4
900 – 949.....	197	192	5	-
950 – 999.....	209	201	7	1
1,000 and over .....	2,782	2,744	33	5



**Table 6-B**

**Benefits in Force on September 30, 2006  
by Type and by Semi-Monthly Amount**

Semi-Monthly Amount	Type of Benefit		
	Total	Duty Death	Survivors*
Total .....	275	8	267
Less than \$50 .....	2	-	2
\$ 50 – 99 .....	27	-	27
100 – 149 .....	43	5	38
150 – 199 .....	24	-	24
200 – 294 .....	16	2	14
250 – 299 .....	19	-	19
300 – 349 .....	18	-	18
350 – 399 .....	15	1	14
400 – 449 .....	35	-	35
450 – 499 .....	4	-	4
500 – 549 .....	10	-	10
550 – 599.....	7	-	7
600 – 649.....	5	-	5
650 – 699.....	6	-	6
700 – 749.....	1	-	1
750 – 799.....	5	-	5
800 – 849.....	4	-	4
850 – 899.....	2	-	2
900 – 949.....	3	-	3
950 – 999.....	3	-	3
1,000 and over .....	26	-	26

\*Survivors of active members and pensioners.

**Table 7-A**  
**Pensions in Force on September 30, 2006**  
**by Type and by Age**

Age on September 30, 2006	Total	Type of Pension		
		Service	Duty Disability	Non-Duty Disability
Total .....	7,007	6,731	84	192
Under 35 .....	-	-	-	-
35 - 39 .....	9	1	7	1
40 - 44 .....	28	9	8	11
45 - 49 .....	76	53	12	11
50 - 54 .....	281	226	18	37
55 - 59 .....	819	776	9	34
60 - 64 .....	1,418	1,377	9	32
65 - 69 .....	1,383	1,362	9	12
70 - 74 .....	1,165	1,138	8	19
75 - 79 .....	774	752	3	19
80 - 84 .....	524	512	1	11
85 - 89 .....	338	334	-	4
90 - 94 .....	143	142	-	1
95 and over .....	49	49	-	-

**Table 7-B**  
**Benefits in Force on September 30, 2006**  
**by Type and by Age**

Age on September 30, 2006	Type of Benefit		
	Total	Duty Death	Survivors*
Total .....	275	8	267
Under 35 .....	-	-	-
35 - 39 .....	1	1	-
40 - 44 .....	2	1	1
45 - 49 .....	2	-	2
50 - 54 .....	9	-	9
55 - 59 .....	12	-	12
60 - 64 .....	26	1	25
65 - 69 .....	39	1	38
70 - 74 .....	47	1	46
75 - 79 .....	37	1	36
80 - 84 .....	48	2	46
85 - 89 .....	31	-	31
90 - 94 .....	12	-	12
95 & over .....	9	-	9

*\*Survivors of active members and pensioners.*

**Table 8**  
**Progress of the Pension Rolls**

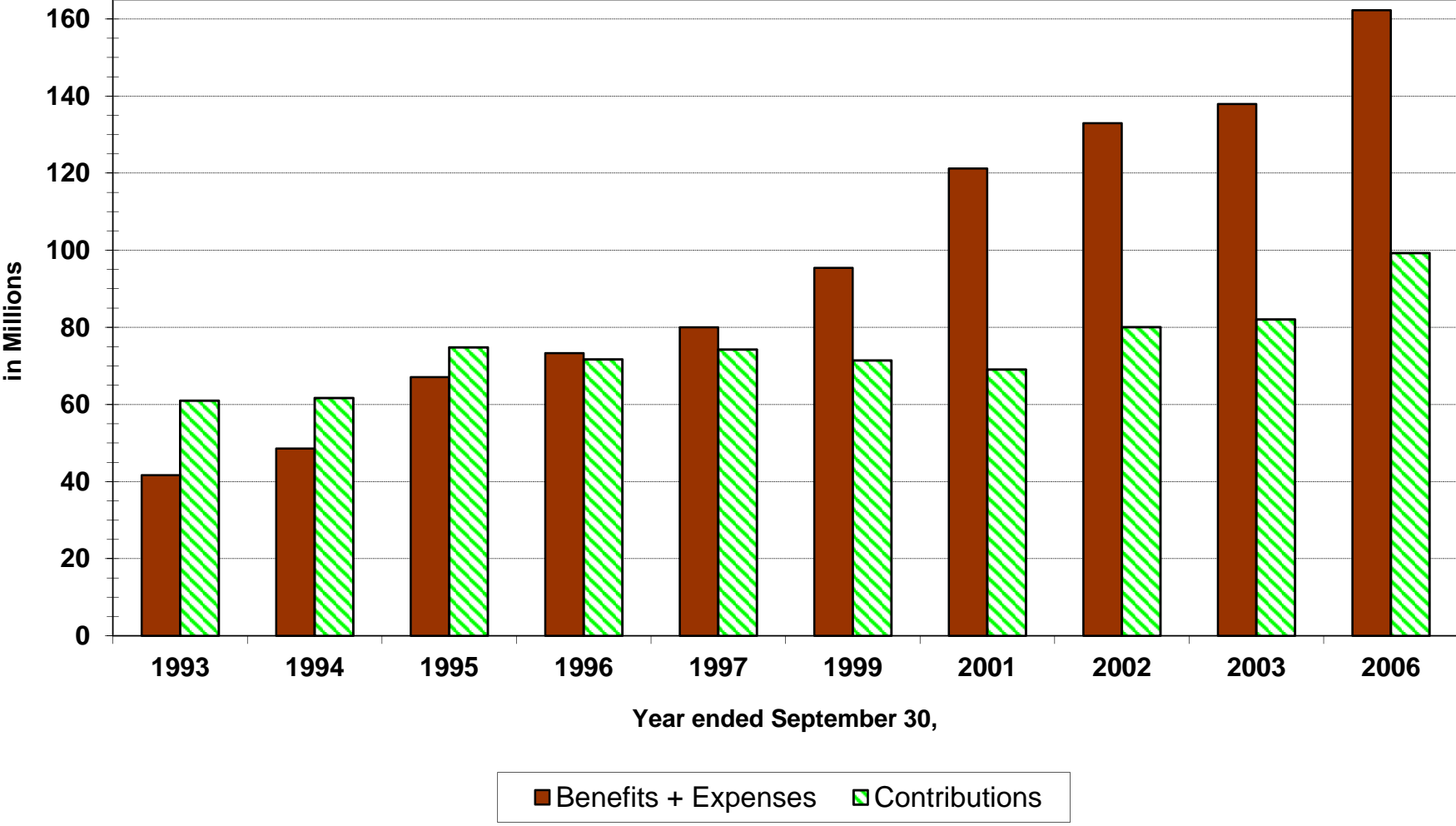
Year Ended	Awards	In Force at End of Year	
		Monthly	
		Number	Amount
June 30:			
1976	114	668	\$ 196,550
1977	159	798	270,468
1978	130	901	316,462
1979	131	1,002	357,804
September 30:			
1980 (1)	227	1,180	483,626
1981	114	1,256	532,188
1982	162	1,360	619,370
1983	163	1,460	705,394
1984	529	1,928	1,275,292
1985	209	2,081	1,445,600
1986	157	2,201	1,557,056
1987	223	2,338	1,694,006
1988	212	1,449	1,817,784
1989	212	2,546	N/A
1990	N/A	N/A	N/A
1991	277	2,901	2,539,628
1992	N/A	N/A	N/A
1993	293	3,473	3,416,552
1994	219	3,751	3,948,144
1995	798	4,438	5,339,056
1996	N/A	N/A	N/A
1997	413	4,682	6,009,305
1998	N/A	N/A	N/A
1999	627	6,212	7,396,472
2000	N/A	N/A	N/A
2001	577	5,581	9,225,393
2002	N/A	N/A	N/A
2003	366	6,093	10,512,821
2004	357*	N/A	N/A
2005	377*	N/A	N/A
2006	277	7,282	13,520,312

\* - Estimated

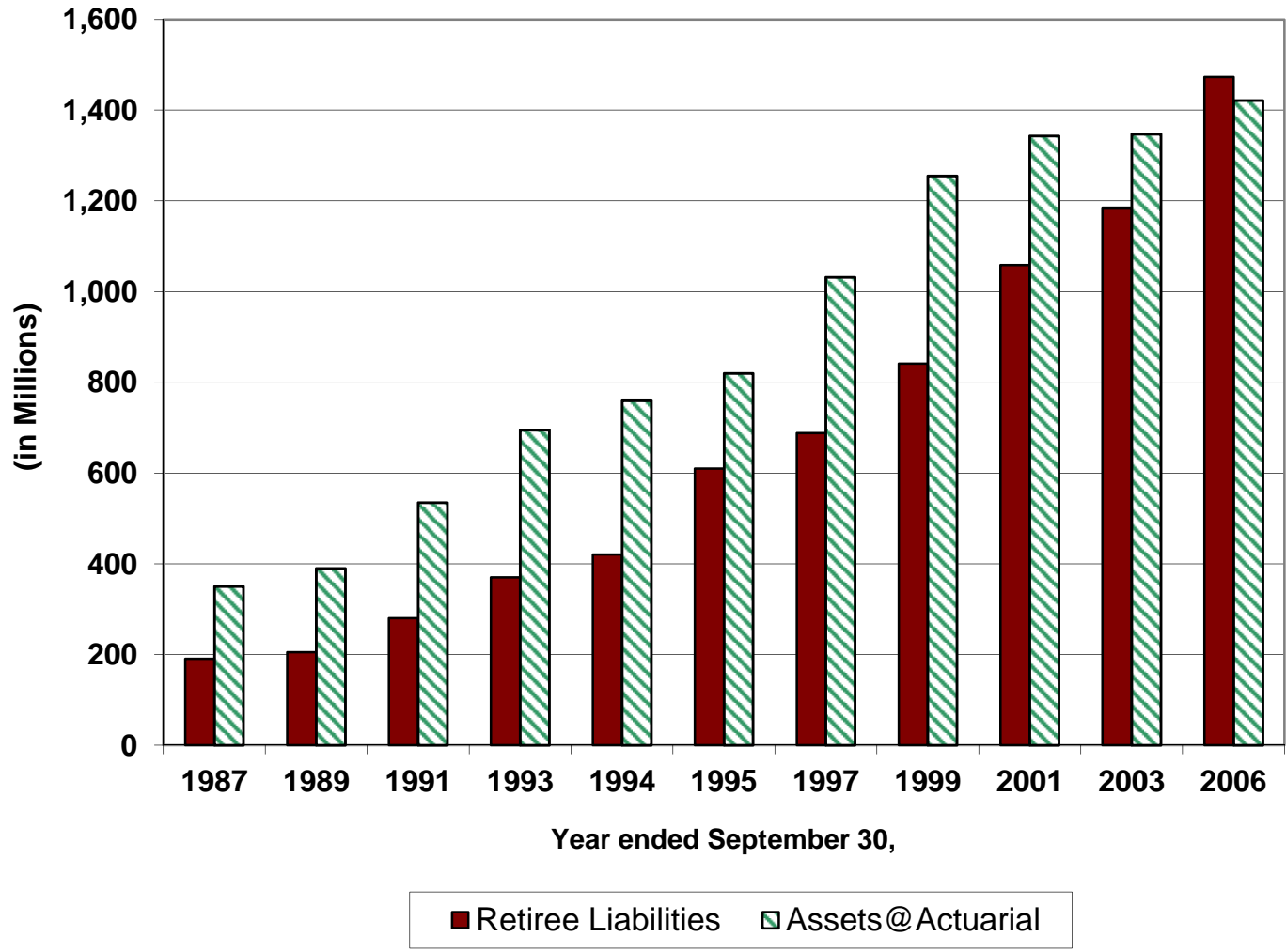
(1) - Fifteen-month period

N/A - Not Available

**Chart 5**  
Benefits & Expenses vs Contributions



**Chart 6**  
Retiree Liabilities vs. Assets



#### **IV. ACTUARIAL ASSUMPTIONS AND FUNDING METHODS**

To determine the contributions required to meet the cost of a retirement system, assumptions have to be made about each aspect of the future that will affect the accumulation of assets and the disbursement of benefits: the investment return on assets, changes in salaries, and the rates of turnover, disability, mortality and retirement among members. If these assumptions prove to overstate the ultimate cost, the System will realize experience gains and contributions required will be reduced. The reverse is, of course, true if the assumptions understate the ultimate cost.

For purposes of the September 30, 2006 actuarial valuation, we made an assumption regarding the level of administrative expenses. The statute no longer requires that administrative expenses be contributed in addition to the contribution rate and therefore we had to make an assumption of administrative expenses to be paid by the System. Assumed expenses were set equal to the actual administrative expenses for the year ending September 30, 2006 of \$10.3 million.

Since the last actuarial valuation, the mortality table has been changed to the RP-2000 Combined Healthy Male/Female Table set forward 2 years. The prior table was the 1971 Group Annuity Mortality Table.

An overview of each assumption and method used in the September 30, 2006 valuation follows.

##### **Investment Earnings**

Funding a retirement system on an actuarial reserve basis involves the accumulation of substantial reserves to guarantee the payment of promised benefits. These reserves are invested and the rate of investment earnings is a major factor in determining the contributions required to support the ultimate cost of the system.

The investment yield rate is one of the most significant assumptions in terms of cost impact. Although it is commonly referred to as an “actuarial assumption”, the assumed long-term yield rate is essentially an economic assumption. This is because the rate of investment earnings in future years will depend primarily on such factors as the changing conditions in capital markets, changes in the overall economy, and on the investment policies and asset valuation procedures established by the Board of Trustees.

An 8.0% investment assumption is used in the current actuarial valuation.

### **Asset Method**

Assets are valued by imputing income at an assumed rate, and writing up/(down) the preliminary amount by 20% of the gain/(losses) realized over the prior 5 years. The asset value is then further adjusted, if necessary, to bring the asset value within 20% of market value. This method was adopted beginning with the September 30, 1999 actuarial valuation.

Table 9 presents the statement of income and expenses at market value and Table 10 the derivation of actuarial value of assets.

### **Salary Scale**

The rate at which salaries increase has a major effect on the present value of future benefit payments to active members. In addition, salaries determine the amount of income produced by the government and employee contribution rates. The greater the rate of salary increases, the more income will be produced by a given percentage of pay contribution rate and the more will be needed for benefits.

For purposes of an actuarial valuation, a salary scale is used to estimate the probable salary progression of retirement system members in the future. Selecting a salary scale that approximates actual experience helps to maintain actuarial contribution requirements at a level percentage of payroll. There is, however, a question of policy as to the extent to which general salary increases should be anticipated and thus funded in advance. The actuarial valuations prepared periodically reflect actual increases in salaries, changes in investment earnings, etc., and contribution requirements are automatically adjusted to take account of differences between



the assumed and actual experience.

For the current valuation, we have assumed that salaries will increase at a rate of 5.5% per year, compounded, regardless of age. Since salaries in excess of \$65,000 are not counted for benefit purposes (except for judges and legislators), projected increases beyond \$65,000 were ignored in the calculation of benefits and contributions.

The salary increases for various working lifetimes at the 5.5% per year assumption are shown below:

<u>Working Lifetime (years)</u>	<u>Percentage increase in salary at retirement</u>
20	191.8%
25	281.3
30	398.4
35	551.4

### **Termination Rates Before Retirement**

The termination rates applied in an actuarial valuation project the probable terminations of employment before retirement among employees in active service. The rates involve a forecast of the number of active members in various age brackets who will leave the coverage of the System with no benefit rights (except a refund of their own contributions), as well as a forecast of the number of members who will qualify for death, disability and deferred vested pensions. The employer contributions made on behalf of those members who terminate employment with no benefit rights will be available for the payment of benefits to other covered members who remain in employment until they acquire eligibility.

The following tables illustrate the termination assumptions at selected ages for both Regular Employees and Public Safety.

Regular Employees

<b>Male (Rate %)</b>				
<b>Age</b>	<b>Death</b>	<b>Disability</b>	<b>Withdrawal</b>	<b>Total</b>
22	.04	.03	7.86	7.93
27	.04	.03	7.59	7.66
32	.07	.03	6.88	6.98
37	.10	.03	5.83	5.96
42	.14	.06	4.69	4.89
47	.20	.12	3.47	3.79
52	.32	.28	1.88	2.48
57	.59	.57	.47	1.63
62	1.13	1.62	--	2.75

<b>Female (Rate %)</b>				
<b>Age</b>	<b>Death</b>	<b>Disability</b>	<b>Withdrawal</b>	<b>Total</b>
22	.02	.03	7.86	7.91
27	.02	.03	7.59	7.64
32	.04	.03	6.88	6.95
37	.06	.03	5.83	5.92
42	.10	.06	4.69	4.85
47	.16	.12	3.47	3.75
52	.24	.28	1.88	2.40
57	.44	.57	.47	1.48
62	.86	1.62	--	2.48

Public Safety

<b>Male (Rate %)</b>				
<b>Age</b>	<b>Death</b>	<b>Disability</b>	<b>Withdrawal</b>	<b>Total</b>
22	.04	.05	5.33	5.42
27	.04	.05	4.46	4.55
32	.07	.05	3.16	3.28
37	.10	.07	1.83	2.00
42	.14	.12	.78	1.04
47	.20	.24	.08	0.52
52	.32	.55	--	0.87
57	.59	1.14	--	1.73

<b>Female (Rate %)</b>				
<b>Age</b>	<b>Death</b>	<b>Disability</b>	<b>Withdrawal</b>	<b>Total</b>
22	.02	.05	5.33	5.40
27	.02	.05	4.46	4.53
32	.04	.05	3.16	3.25
37	.06	.07	1.83	1.96
42	.10	.12	.78	1.00
47	.16	.24	.08	0.48
52	.24	.55	--	0.79
57	.44	1.14	--	1.58

**Service-connected Death and Disability**

Service-connected death and disability rates project the number of members for whom such claims will arise. As in past valuations, since incidence has been so slight, we have assumed no rates for either service-connected death or disability. The cost of future awards will be recognized at the time they occur.

**Retirement Age**

In valuing pension benefits and determining contribution requirements, it is necessary to make an assumption as to when active members will actually retire. The age at retirement affects costs in several distinct ways. First, the younger a retiree’s age, the longer is their life expectancy and the greater the cost of their annuity. Second, under the benefit formula in effect, the shorter a member’s duration of service the lower the amount of their retirement benefit. Third, the number of years of active participation in the system determines the amount required each year to provide the retirement income. The longer the period over which benefits are funded (*i.e.*, the later the member retires), the lower the annual contribution rate. In general, the net result is that the younger the retirement age, the higher the annual contribution required.

Our retirement assumptions for Regular Employees are summarized below:

<b><u>Males</u></b>	<b><u>Females</u></b>
20% at age 54 and 30 years of service	25% at age 57 and 30 years of service
30% at age 57 and 30 years of service	50% at age 60 and 30 years of service
30% at age 60 and 30 years of service	100% at age 63 and 10 years of service
100% at age 63 and 10 years of service	

In no case will assumed retirement be postponed later than age 63 and 10 years of service.

For Public Safety, retirement is assumed after twenty-three years of service, but not later than age 55 and the completion of 10 years of service.

For judges, assumed retirement is at age 50 with 20 years of service. For legislators, assumed retirement is at age 53 with 6 years of service.

**Mortality Rates After Retirement**

Mortality is assumed to be based on the RP-2000 Combined Healthy Male/Female Table set forward 2 years. This table projects the following life expectancies for men and women:

Expected Number of Years of Life Remaining			Expected Number of Years of Life Remaining		
Age	Male	Female	Age	Male	Female
60	19.5	22.1	68	13.4	15.7
61	18.7	21.3	69	12.7	15.0
62	17.9	20.4	70	12.0	14.3
63	17.1	19.6	71	11.3	13.6
64	16.3	18.8	72	10.7	12.9
65	15.6	18.0	73	10.1	12.2
66	14.8	17.2	74	9.5	11.6
67	14.1	16.5	75	8.9	11.0

For disabled retirees, we assumed mortality experience in accordance with the rates at age 65 on the mortality table specified.

Table 11 summarizes the actuarial assumptions used in this valuation.

**Actuarial Funding Method - Entry Age Normal Actuarial Cost Method**

Funding the Retirement System on an actuarial reserve basis seeks to achieve the following major objectives:

- o Level required contribution rates as a percentage of payroll;
- o Finance benefits earned by present employees on a current basis;
- o Accumulate assets to enhance members' benefit security;
- o Produce investment earnings on accumulated assets to help meet future benefit costs;
- o Make it possible to estimate the long-term actuarial cost of proposed amendments to System provisions;
- o Assist in maintaining the Retirement System's long-term financial viability.

The basic funding objective is a level pattern of cost as a percentage of salary throughout an employee's working lifetime. The funding method used in this actuarial valuation - the entry age normal cost method - is intended to meet this objective and result in a relatively level long-term contribution requirement as a percentage of salary.

**Table 9**

**Statement of Income and Expenses - Market Value**

	Year Ending September 30,		
	2006	2005	2004
(1) Assets at market value as of beginning of year .....	\$1,434,633,117	\$1,350,305,464	\$1,275,775,907
(2) Total contributions .....	99,271,301	81,957,717	84,884,966
a) Employer .....	65,061,430	51,542,030	54,084,454
b) Employees .....	34,209,871	30,415,687	30,800,512
(3) Net interest dividend and rental income .....	56,334,996	45,494,173	36,451,054
(4) Capital appreciation (depreciation) .....	48,232,160	109,922,103	95,818,183
(5) Expenses .....	10,257,747	9,287,655	8,095,749
(6) Benefits paid .....	150,736,277	143,758,685	134,528,897
(7) Assets at market value as of September 30, (1) + (2) + (3) + (4) - (5) - (6) .....	\$1,477,477,550	\$1,434,633,117	\$1,350,305,464

**Table 10****Derivation of Actuarial Value of Assets**

Actuarial value as of October 1, 2003	\$1,346,906,862
Contributions made (annual basis)	84,884,966
Benefit payments made	(134,528,897)
Expenses	(8,095,749)
Transfers/Adjustments	0
Expected return on assets	105,442,962
Write-up (down) [.2 x sum of gains/(losses)]	(34,321,808)
Actuarial value as of September 30, 2004	1,360,288,336
Contributions made (accrual basis)	81,957,717
Benefit payments made	(143,758,685)
Expenses	(9,287,655)
Transfers/Adjustments	0
Expected return on assets	105,979,522
Write-up (down) [.2 x sum of gains/(losses)]	(26,214,037)
Actuarial value as of September 30, 2005	1,368,965,198
Contributions made (accrual basis)	99,271,301
Benefit payments made	(150,736,277)
Expenses	(10,257,747)
Transfers/Adjustments	0
Expected return on assets	107,048,307
Write-up (down) [.2 x sum of gains/(losses)]	6,802,253
Actuarial value as of September 30, 2006	1,421,093,035





## **V. RESULTS OF ACTUARIAL VALUATION**

Our actuarial valuation of the Retirement System as of September 30, 2006 was based on:

- (1) The present provisions of the System, as summarized in Section II;
- (2) The characteristics of current System members described in Section III;
- (3) The actuarial assumptions described in the previous section; and
- (4) The net assets of the System which were determined to be \$1,421 million at actuarial value (market value of \$1,477 million) based on a financial audit as of September 30, 2006.

Before proceeding with the results of this valuation, several issues which directly impact the valuation results should be discussed. The first, and possibly the most single important issue, is data. The quality of this year's data again shows that improvement is necessary. There were members who were first reported to this valuation who should have been reported in the prior valuation and others previously reported who should not have been. It was also still necessary to make an assumption for the benefit amount and account balance of terminated vested members.

The second issue is the review of the actuarial assumptions being used in the valuation. Not only is having quality data important for properly valuing the liabilities of the Retirement System, it also aids in the assessment of determining appropriate assumptions. We will continue to review several of the key actuarial assumptions used in the valuation, including investment return, retirement ages, termination and salary increases and will recommend changes where appropriate.

The purpose of the valuation was to determine the contributions required to meet the ultimate cost of the System on a level-cost actuarial reserve basis. While the actual disbursement of retirement benefits is deferred until a member retires, the cost of the Retirement System should be viewed and recognized as a cost incurred by the public employer over the period

during which a member is employed in government service.

The current contribution required depends, in part, on the funding method or budgeting scheme that is selected to calculate costs. However, the ultimate cost is the same regardless of the method used. The funding method used to calculate contribution requirements for the Retirement System of the Government of the Virgin Islands is Entry Age Normal Cost.

Under this method, the total contribution requirement is comprised of the normal cost plus the payment required to amortize the unfunded accrued liability over a period of years. In general terms, the normal cost is the cost of benefit rights accruing on the basis of current service. Technically, the normal cost is the level percentage of salary contribution required over the total projected working career needed to meet the cost of lifetime benefits.

The actuarial accrued liability is the amount by which future normal costs will fall short of meeting future benefits. The liability is redetermined at each actuarial valuation and the effect of all gains or losses from experience with respect to the actuarial assumptions is reflected in the actuarial accrued liability. The actuarial value of assets is then subtracted from the total accrued liability to determine the unfunded actuarial accrued liability. Therefore, the unfunded liability reflects all gains and losses from both accrued liabilities and assets. The full effect of changes in benefit provisions and changes in assumptions is reflected in both the normal cost and actuarial accrued liability for active employees. For retirees, changes in benefit provisions and assumptions are reflected in the actuarial accrued liability.

The total normal cost (including administrative expenses) was calculated to be \$53.9 million or 13.7% of payroll. The unfunded accrued liability is \$1,236.6 million as of September 30, 2006. The Board has adopted an amortization period that has 20 years remaining as of September 30, 2006. The payment required to amortize this liability over 20 years (in equal dollar amounts) from September 30, 2006 is \$116.6 million or 29.6% of payroll. In total, the contribution required is \$170.6 million or 43.2% of payroll.

These contribution figures for 2006 and 2003 are summarized below:

**Contribution Required (Amounts in Thousands)**

	<b><u>September 30, 2006</u></b>		<b><u>September 30, 2003</u></b>	
	<b><u>Amount</u></b>	<b><u>Percent of Total Payroll</u></b>	<b><u>Amount</u></b>	<b><u>Percent of Total Payroll</u></b>
<b><u>Total</u></b> Total contribution required	\$170,552	43.2%	\$136,466	40.3%
Contributions at statutory rate	57,216	14.5	49,075	14.5
Employee members' contribution	32,755	8.3	28,107	8.3
Total additional contribution required	80,581	20.4	59,284	17.5

**Consequences of Not Increasing Contribution Rates**

The continuation of statutory contributions being less than the actuarially required amounts will result in:

- Actuarially required amounts increasing in future years to make up for current and prior years' contribution deficits.
- The unfunded actuarial liabilities of the plan continuing to increase.
- A continual decrease in the funding ratio that measures the progress being made towards the funding of benefits accruing from year to year.
- Benefit security to participants and the System's ability to pay promised benefits being at risk with the long-term viability of the System being in jeopardy.

Based on a cash flow analysis, the System is projected to run out of assets within 14-19 years without additional funding.

The System's unfunded actuarial liability has increased since the last actuarial valuation. As of September 30, 2006, it amounted to \$1,236.6 million, as compared with \$921.7 million as of September 30, 2003. The \$314.9 million increase in the unfunded actuarial liability is due to the combination of contributions made over the last three years less than the interest on the unfunded liability (\$91.8 million), the actuarial loss from investment experience (\$73.3 million), and that from all other changes including significant data changes, plan changes, and all other actuarial gains/losses (\$149.8 million).

For purposes of considering a system's financial soundness, the actuarial liability is not the sole measure to be considered. That number is merely a by-product of the funding method used to determine contribution requirements. Also important to consider is the present value of accrued benefits and how well that liability is funded.

The present value of accrued plan benefits is the sum of the present value of:

- (i) benefits expected to be paid with respect to former employees who have retired or who have terminated service with vested rights,
- (ii) benefits expected to be paid to beneficiaries of employees who have died, and
- (iii) accrued benefits, based on service rendered and current compensation, to become payable with respect to present employees, whether or not such benefits are vested.

This takes into account the regular valuation assumptions as to investment return and mortality and, in the case of present employees, withdrawal, disability, and retirement, as well as the effect of future service accrual for benefit eligibility.

In other words, it is the value of retirement, death and disability benefits accrued to date on a frozen plan basis. No additional benefit service or compensation increases is recognized and the plan in all other respects is assumed to continue as before.

A comparison of the value of accrued plan benefits with the market value of the assets, continued over a period of years, will provide some measure of progress that is being made towards the funding of the benefits that are accruing from year to year, according to measurement methods reasonably consistent for all plans. Table 12 shows the position of the Retirement System relative to the present value of accrued benefits and Table 13 shows the actuarial cost factors.

**Factors Not Reflected in the Actuarial Valuation**

The September 30, 2006 actuarial valuation does not reflect any Legislative plan provisions enacted after September 30, 2006 or any investment losses incurred after that date.

**Table 12****ACTUARIAL PRESENT VALUE OF ACCRUED BENEFITS**

The actuarial present value of accrued benefits is shown below as of September 30, 2006, and for comparison purposes as of September 30, 2003.

	(Amounts in Thousands)	
	Year Ended September 30,	
	2006	2003
1. Actuarial present value of accrued vested benefits:		
a) Participants currently receiving benefits	\$1,473,365	\$1,184,986
b) Other vested benefits	<u>799,475</u>	<u>692,637</u>
c) Total vested benefits	\$2,272,840	\$1,877,623
2. Actuarial present value of accrued non-vested benefits	<u>67,636</u>	<u>91,614</u>
3. Total actuarial present value of accrued benefits	\$2,340,476	\$1,969,237
4. Market value of assets (in thousands)	\$1,477,478	\$1,275,776
5. Ratio of market value of assets to present value of accrued benefits	63.1%	64.8%

The assumptions are the same as those used in the actuarial valuation, which include an interest rate assumption of 8.0% and the 1971 Group Annuity Mortality Table as of September 30, 2006, and September 30, 2003.

**Table 13**  
**Actuarial Cost Factors**

As of the valuation date, the cost factors were as follows:

1.	Actuarial Accrued Liability - total	\$2,657,664,564
	Active members	\$ 1,179,461,223
	Inactive members vested in retirement benefits (estimated)	3,469,725
	Inactive members with contribution accounts	1,368,857
	Pensioners and beneficiaries	1,473,364,759
2.	Actuarial Value of Assets*	1,421,093,035
3.	Unfunded actuarial accrued liability	1,236,571,529
4.	Normal cost	43,676,244
5.	Administrative expenses	10,257,747
6.	Total normal cost (4) + (5)	\$ 53,933,991
7.	Contribution necessary to amortize unfunded liability over 20 years from September 30, 2006	116,618,094
8.	Total required contribution (6) + (7)	170,552,085
9.	Total contributions expected for the year beginning October 1, 2006	89,971,214
	Employer - 14.5%	\$57,216,397
	Members	32,754,817
10.	Total payroll (capped at \$65,000 except for Judges)	394,595,844
11.	Total additional contribution required (8) - (9)	80,580,871
12.	Total additional contribution as a percentage of payroll	20.4%

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\* Includes expected future contributions from Acts No. 6007 and No. 6088, Section 8(a).

## **VI. ACCOUNTING INFORMATION**

The Governmental Accounting Standards Board (GASB) determines the way governmental entities account for their pension plans. The current standards, GASB Statements Nos. 25 and 27, replaced the prior reporting requirements under GASB Statement No. 5.

### **GASB Statement No. 25**

The plan is subject to the disclosure requirements of Statement No. 25 of the Governmental Accounting Standards Board (GASB).

Statement No. 25 establishes financial reporting standards for defined benefit pension plans as they relate to the Plan's financial accounting. As used in Statement No. 25, pension benefits include retirement income as well as other types of postemployment benefits (disability, death benefits, life insurance) but excludes postemployment healthcare.

Statement No. 25 for defined benefit plans requires two plan financial statements on an accrual basis (statement of plan net assets and a statement of changes in plan net assets). The statement now requires the fair value of assets for those financial statements where previously cost or amortized cost could be used.

Statement No. 25 also requires notes to the financial statements including plan description, classes of employees covered, brief description of benefit provisions and a summary of significant accounting policies (including funding policy).

Also required (after the notes) is supplementary information ("Required Supplementary Information") including a schedule of funding progress and a schedule of employer contributions. The actuarial information to be shown must be determined under certain parameters. These parameters are the same as those required under GASB Statement No. 27, and are summarized below:

**Actuarial Valuations:** Must occur at least every two years and the results must be applied within 12 months (24 months for biennial valuations) for plans and 24 months for employers.

**Actuarial Assumptions:** Best estimate of individual assumptions and consistency of



all assumptions. Investment return assumption (discount rate) based on estimated long-term investment yield for plan.

**Actuarial Cost Method:** Entry age, frozen entry age, attained age, frozen attained age, aggregate or projected unit credit are acceptable.

**Actuarial Value of Assets:** Market-related.

**Annual Required Contributions of Employers:** Must include normal (current service) cost and amortization of the plan's total unfunded actuarial liability (UAL).

**Amortization Period:** Periods of up to 40 years will be acceptable for the first 10 years after the effective date of Statement No. 25. After that, periods cannot exceed 30 years. Significant decreases in UAL caused by changing actuarial methods must be amortized over at least 10 years.

**Amortization Method:** Level dollar or level percentage of projected payroll, open or closed basis.

The required supplementary information for GASB Statement No. 25 is presented in Table 14.

It is important to note that GASB Statement No. 25 eliminates the need to report actuarial accrued liabilities on a standardized basis (*i.e.*, pension benefit obligation) and instead substitutes all actuarially determined information based on the plan's funding method (*e.g.*, Entry Age Normal Actuarial Cost for the Retirement System of the Government of the Virgin Islands).

Paragraph 39 states that the required "Schedules of Funding Progress" and "Employer Contributions" should include information for the current year and as many of the prior years as information, according to the parameters, is available. We have included this information for the years 1993 to 2006 in Table 15, which follows this section.

Table 16 shows the “Annual Required Contributions” for each applicable year. These amounts are based on the prior actuarial valuations. For those interim years in which an actuarial valuation was not performed, the results of the prior actuarial valuation (as a percent of payroll) and the average of the prior and subsequent years’ salaries were used in the schedule. Actual contributions shown are based on data provided by the auditor.

### **GASB Statement No. 27**

GASB Statement No. 27 establishes the standards of accounting and financial reporting for pension expenditures/expense and related pension liabilities, pension assets, note disclosures and required supplementary information in the financial reports of governmental employers. (The financial reporting for the pension trust funds is covered by GASB Statement No. 25 as described above.)

GASB Statement No. 27 does not mandate or require the employer to fund (contribute) any specific amount. Rather it determines the standards (parameters) to be used for the purpose of expensing the cost of pension benefits on the employer’s financial statements. To the extent that an employer wants to fund (contribute) the same amount that it expenses, the amount contributed must be determined under certain parameters. When the funding methods and assumptions meet the parameters, the same methods and assumptions are used for both funding and expensing (accounting). If they do not, the employer/entity must choose between making two calculations at each actuarial valuation – one for funding and one for accounting – or modifying the funding approach to meet the parameters. Using different methods for accounting and funding may result in increasing employer liabilities (Net Pension Obligation).

Statement No. 27 uses some terms, including:

Net Pension Obligation (NPO) – Represents the employer’s transition obligation/asset for past underfunding/overfunding of contribution amounts compared to those actuarially determined. After the effective date of Statement No. 27, it will include the cumulative difference between annual pension expense and the employer’s contributions.

It is our understanding that GERS is considered a cost-sharing multiple-employer plan for purpose of Statement No. 27.

The NPO at transition of a cost-sharing employer is equal to the employer's contractually required contributions that are due and payable at the effective date and pension-related debt, if applicable. Each employer contributing to GERS will need to determine their own NPO.

Actuarial Required Contribution (ARC) – Represents the contribution amount that can also be used for purposes of reporting annual pension expense/accounting. Employers that participate in a cost-sharing multiple-employer plan (such as GERS) report, for annual pension expense/accounting purposes, an amount equal to their contractually required contributions to the Plan.

**Table 14**  
**Required Supplementary Information –**  
**GASB Statement No. 25**

Valuation date .....	9/30/2006
Actuarial cost method .....	Entry Age Normal with
Amortization method .....	Level dollar, closed group
Remaining amortization period .....	20 years
Asset valuation method .....	Actuarial value (see Section 4) but not less than 80% nor greater than 120% of market
Actuarial assumptions:	
Investment rate of return .....	8.00%
Projected salary increases .....	5.5%
Cost-of-living adjustments .....	Retirement benefits increased by 1.5% of the original amount each year after age 60. Disability benefits are also increased by 1%.

**Table 15**  
**Required Supplementary Information**  
**Schedule of Funding Progress**

Actuarial Valuation Date	Actuarial Value of Assets (a)	Unfunded Actuarial Accrued Liability (UAAL) (b)	Past Service Liability (a) + (b) (c)	Funded Ratio (a)/(c) (d)	Covered Payroll (e)	UAAL as a Percentage of Payroll (b)/(e)
9/30/1993	\$690,634,968	\$236,505,572	\$927,140,540	74.49%	289,046,208	81.82%
9/30/1994	752,790,871	243,591,097	996,381,968	75.55%	308,338,304	79.00%
9/30/1995	826,442,922	352,562,359	1,179,005,281	70.10%	297,473,581	118.52%
9/30/1997	1,031,369,518	296,600,030	1,327,969,548	77.67%	310,957,503	95.38%
9/30/1999	1,255,210,585*	518,081,040	1,773,291,625	70.78%	307,568,648	168.44%
9/30/2001	1,342,894,336	731,727,064	2,074,621,400	64.73%	298,909,928	244.80%
9/30/2003	1,346,906,862	921,669,858	2,268,576,720	59.37%	338,444,739	272.33%
9/30/2006	\$1,421,093,035	\$1,236,571,529	\$2,657,664,564	53.47%	\$394,595,844	313.38%

Note: **Actuarial Valuations Prior to 9/30/1999**

The Entry Age Normal with Frozen Initial Liability funding method does not determine Past Service Liability each year. Rather it rolls forward the unfunded liability (UAAL) with adjustment for changes in benefits or assumption. The Past Service Liability shown above has been determined as the sum of the UAAL and the actuarial value of assets

**Actuarial Valuation 9/30/1999 – 9/30/2006**

Past Service liability determined under the Entry Age Normal Method.

\* Actuarial value of assets was fresh-started at market value.

**Table 16**  
**Required Supplementary Information**  
**Schedule of Employer Contributions**

Year Ending September 30:	Annual Required Contributions	Contributions Made	Percentage Contributed
1993*	47,181,730	38,632,619	81.88%
1994	46,856,812	39,353,600	83.99%
1995	55,089,820	50,944,748	92.48%
1996	58,128,608	46,075,378	79.26%
1997*	58,251,171	47,703,717	81.89%
1998	62,578,121	45,984,661	73.48%
1999*	62,237,129	45,148,387	72.54%
2000	64,992,493	44,078,554	67.82%
2001*	64,179,332	43,387,158	67.60%
2002	95,186,021	50,594,531	53.15%
2003*	117,124,599	51,588,235	44.05%
2004	108,358,399	54,084,454	49.91%
2005*	120,184,848	51,542,030	42.89%
2006*	131,059,471	65,061,430	49.64%
2007	137,797,268	60,778,382	44.11%

\* *Estimated based on prior year's actuarial valuation.*