

# **Replacement Ratio Study**

## **Police & Fire and General Service 1990 through November 2004**

Oregon Public Employees Retirement System  
3/31/2005

Assumptions and Exclusions  
Replacement Ratio Study  
3/31/05

Exclusions:

- Judge Member Benefit Type Code
- Greater than 1 year gap between end contribution date and date of retirement
- 15-year certain, lump sum payments and refund annuity retirement options

Job Classes excluded

- TIAA CREF
- Judges
- Legislators
- TRFA
- Elected/appointed official
- School employee

Listed population of 98,686 is cited in the CAFR (fiscal year ending 6/2004) this figure includes beneficiaries. For the Replacement Ratio Study an overall population of 71,306 was used, excluding beneficiaries, as the inclusion of beneficiaries would skew the numbers due to the varying scenarios, which are applicable to beneficiaries (death benefits, divorce benefits etc.). The study includes retirees in job classes of Police & Fire and General Service from January 1990 through November 2004. Job class 1, General Service includes 65,413 members, job class 2, Police & Fire includes 4,980 members.

From the group of 71,306; additional exclusions were made. The number of affected members is listed following the category. They are as follows:

- Job class 3, Police/Fire Unit (able to buy service units), 0 members
- Job class 4, TIAA/CREF; includes 84 members.
- Job class 5, Judge/Member; includes 102 members
- Job class 6, Legislators; includes 63 members
- Job class 7, TRFA; includes 661 members
- Job class 8, Elected/Appointed Officials; includes 3 members
- Job class 9, school employee; this code no longer being used, 0 members (school employees are included in the General Service job class)
- Job class A, A-Election, this code no longer being used, 0 members.

This leaves a population of 70,393 after job class exclusions with 913 members are made. An additional 28,300 members were excluded from the study as they fell into the exclusion categories of:

- Judge Member Benefit Type Code
- Greater than 1 year gap between end contribution date and date of retirement
- 15 year certain, lump sum payments, and refund annuity retirement options.

This leaves a population of 42,093 retirees that were considered in the study. Of this group, 3,806 members retired with a replacement ratio greater than 100%, leaving 38,287 members with a replacement ratio of less than 100%. This translates into \*9.04% of retirees considered in the study retiring with a replacement ratio greater than 100%.

# Assumptions and Exclusions

## Replacement Ratio Study

3/31/05

For the purposes of this study the following assumptions were used:

- Any account with a variable balance was considered a variable balance member.
- Final Average Salary (FAS) is referred to in this study as Salary. Salary is defined as the highest three years salary reported to PERS by employers.
- Monthly Gross Benefit includes the amount provided by HB3349 for qualifying retirees.

Factors that influence the replacement ratio include:

### Account balance

- Accumulated contributions
- Accumulated earnings
  - Affected by investment returns
  - Affected by crediting decisions
  - Affected by variable participation

### Service Time

- Years of service
- Gaps in employment
- Uneven employment (full time/part time)
- Re-employment after retirement
- Retirement option selection

### Other Factors

- Gap between end contribution date and retirement date
- Year of retirement (outside factors)

## **PERS Replacement Ratio Study\* (March 31, 2005)**

### **Summary of Selected Findings**

#### **Average monthly retirement benefit**

- For all retirees from 1990 to 2004, the average monthly retirement benefit at time of retirement was \$2,379 per month, or about \$28,500 annually
- For those retirees in the most recent year (2004), the average monthly retirement benefit was \$2,636 per month, or about \$31,500 annually

#### **Average public employee salaries at retirement**

- The average salary at the time of a member's retirement (1990 to 2004) was \$45,349 annually
- For 2004 retirees, the average salary at retirement was \$53,457 annually

#### **Average salary replacement ratio**

- The average annual retirement benefit (1990 to 2004) equaled 63% of final average salary at the time of retirement
- For those retirees in the most recent year (2004), the average annual retirement benefit equaled 59% of final average salary

#### **Percent of retirees receiving more than 100% of their final average salary**

- The following shows the historical percentage of retirees receiving more than 100% of final average salary in annual benefits at the time of retirement:
  - 1990-1994: 0.3% of 9,353 retirements
  - 1995-1999: 8.7% of 15,274 retirements
  - 2000-2003: 15.5% of 15,142 retirements
  - 2004: 5.0% of 2,324 retirements
  - 1990-2004 overall average: 9.04% of 42,093 retirements

#### **For members who retire with 30 years of service**

- From 1990-2004, the average retirement benefit for 30 year members equaled 85% of final average salary and the average gross benefit was \$3,585 per month
- For 2004 only, the average retirement benefit for 30 year members equaled 79% of final average salary and the average gross benefit was \$3,777 per month
- 11.48% of retirees from 1990-2004 had 30 years of service

**For members who retire with 31+ years of service**

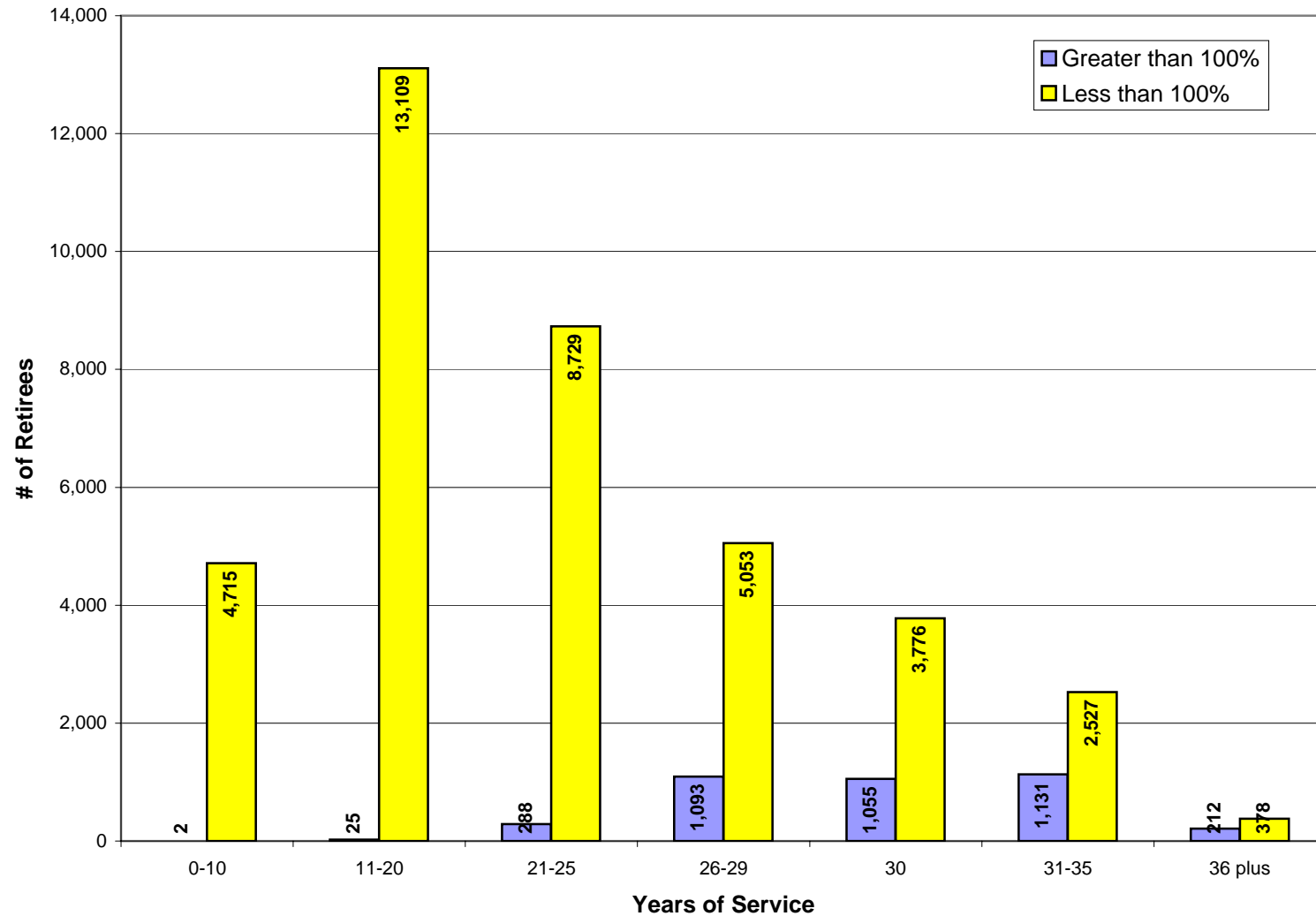
- From 1990-2004, the average retirement benefit for 31+ year members equaled 91% of final average salary and the average gross benefit was \$3,840 per month
- For 2004 only, the average retirement benefit for 31+ year members equaled 88% of final average salary and the average gross benefit was \$4,454 per month
- 10.09% of retirees from 1990-2004 had 31+ years of service

**Retirees receiving more than \$100,000 annually in retirement benefits**

- Of 42,093 retirees (from 1990 to 2004) receiving monthly benefits, 183 or 0.4% receive a retirement benefit totaling more than \$100,000 annually

\* The Study covers Police & Fire and General Service retirements from 1990 through November 2004. The population size of 42,093 retirements was drawn from 71,306 retirements in this period, and covers retired members who selected comparable monthly benefit options. For example, members who selected lump-sum retirements or who retired more than one year after separation from service were excluded. This is consistent with the techniques used in the previous PERS Replacement Ratio Study.

## Police & Fire and General Service Combined Population 1990 - November 2004



\* Revised 7/20/05

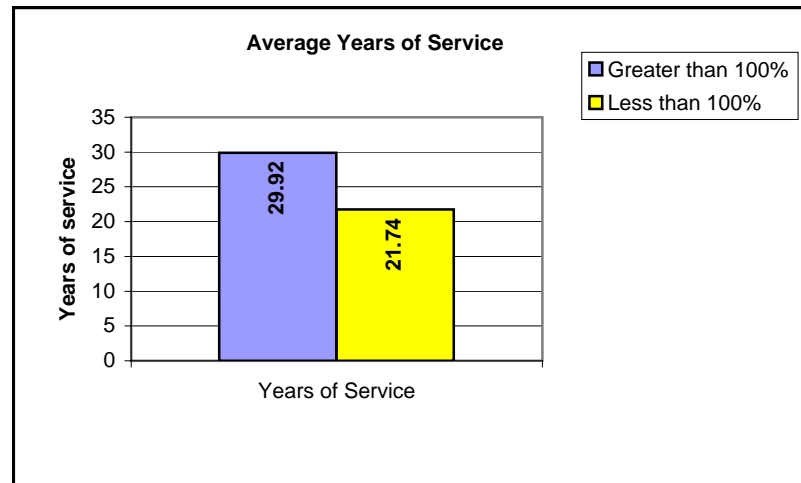
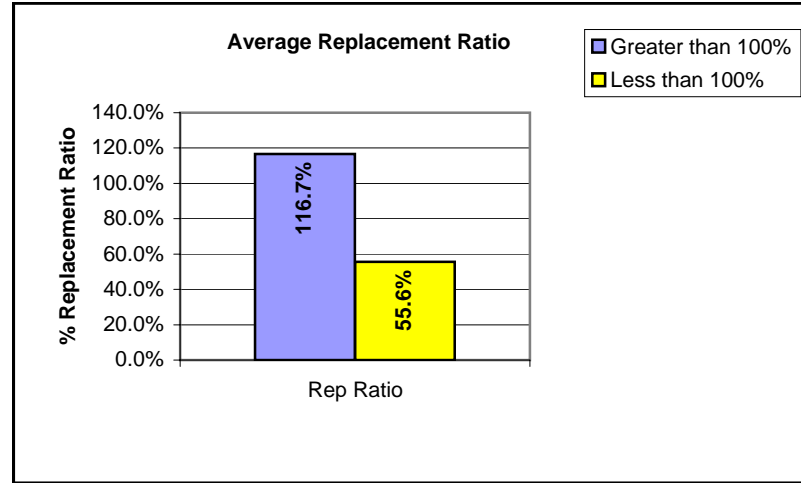
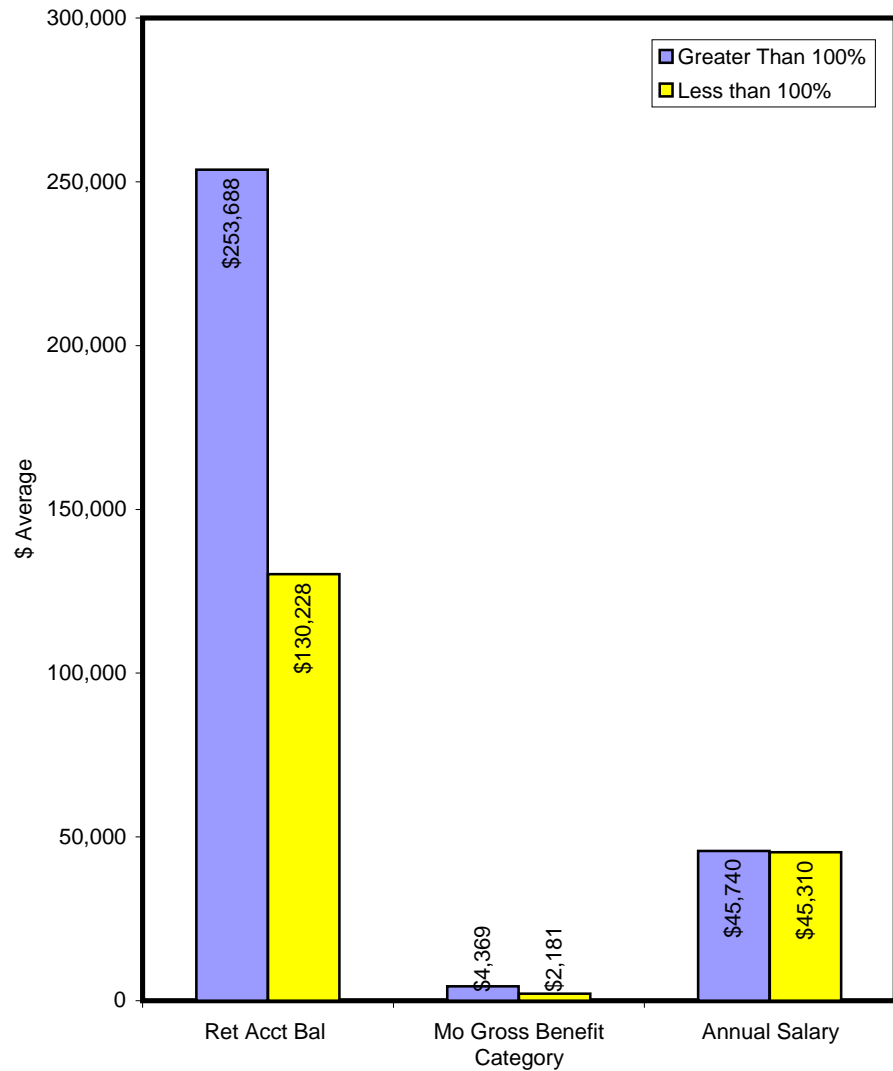
**Number of Retirees**  
**42,093**

**Population with greater than**  
**100% replacement ratio**  
**3,806**

**Population with less than**  
**100% replacement ratio**  
**38,287**

**Percentage of retirees with greater**  
**than 100% replacement ratio**  
**\*9.04%**

### Police & Fire and General Service Overall Averages



1990-Nov 2004

Includes Population with greater than 100% replacement ratio, 3,806 and population with less than 100% replacement ratio, 38,287 (Includes Regular and Variable Account Balances)

Overall population - 42,093

Average Retirement Account Balance \$141,391

Average Monthly Gross Benefit \$2,379

Average Annual Gross Benefit \$28,548

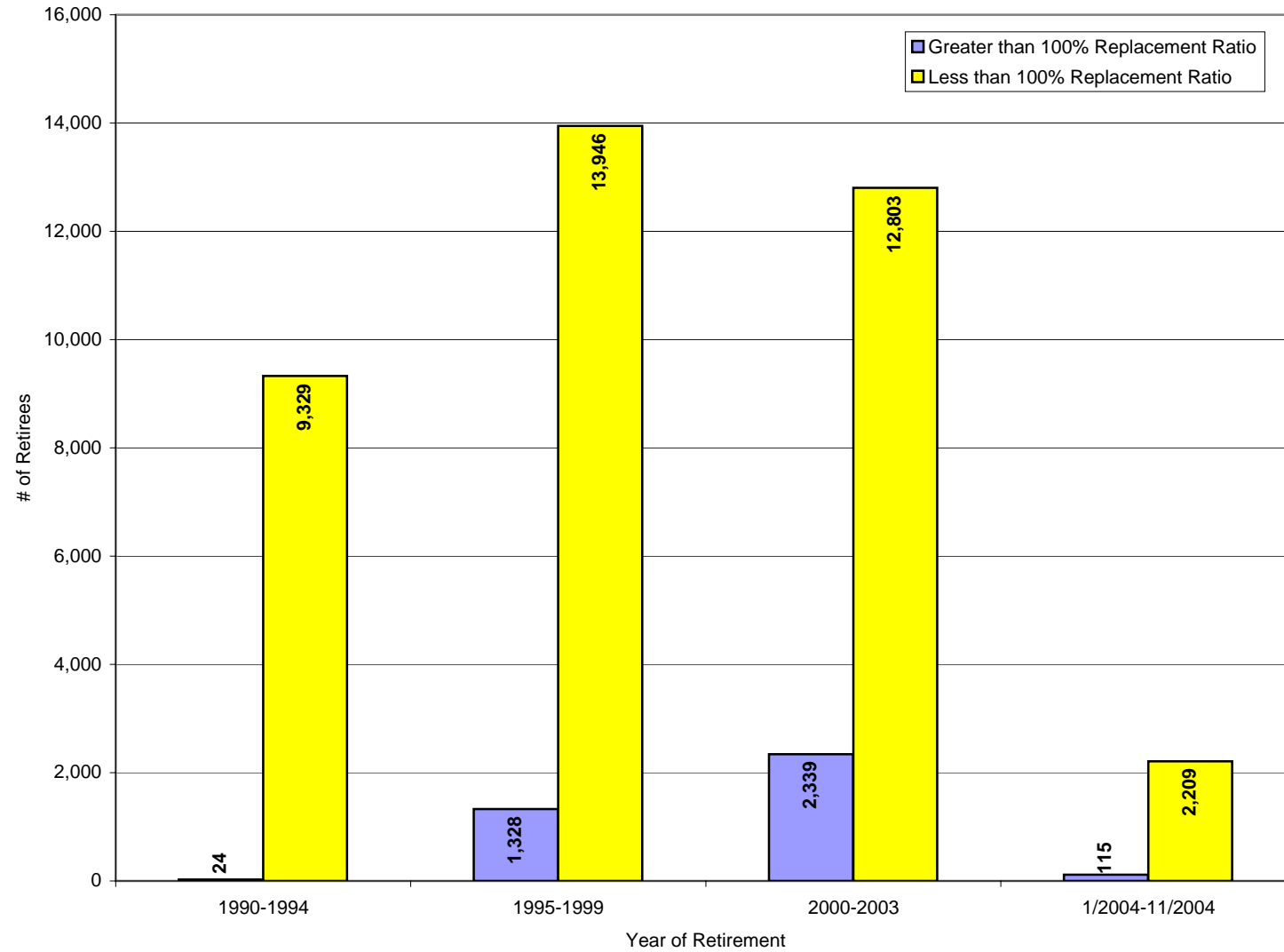
Average Annual Salary \$45,349

Average Rep Ratio 62.95%

Average Years of Service 22.48

Average Retirement Age 57.46

### Retirees with greater than 100% Replacement Ratio



### Percentage of retirees in the overall population with greater than 100% Replacement Ratio

**1990-1994**  
 Greater than 100% - 24 retirees  
 Less than 100% - 9,329 retirees  
 Percentage of retirees with greater than 100% RR **.26%**  
**30 plus years of service- 21 retirees**

**1995-1999**  
 Greater than 100% - 1,328 retirees  
 Less than 100% - 13,946 retirees  
 Percentage of retirees with greater than 100% RR **8.69%**  
**30 plus years of service- 821 retirees**

**2000-2003**  
 Greater than 100% - 2,339 retirees  
 Less than 100% - 12,803 retirees  
 Percentage of retirees with greater than 100% RR **15.45%**  
**30 plus years of service- 1,492 retirees**

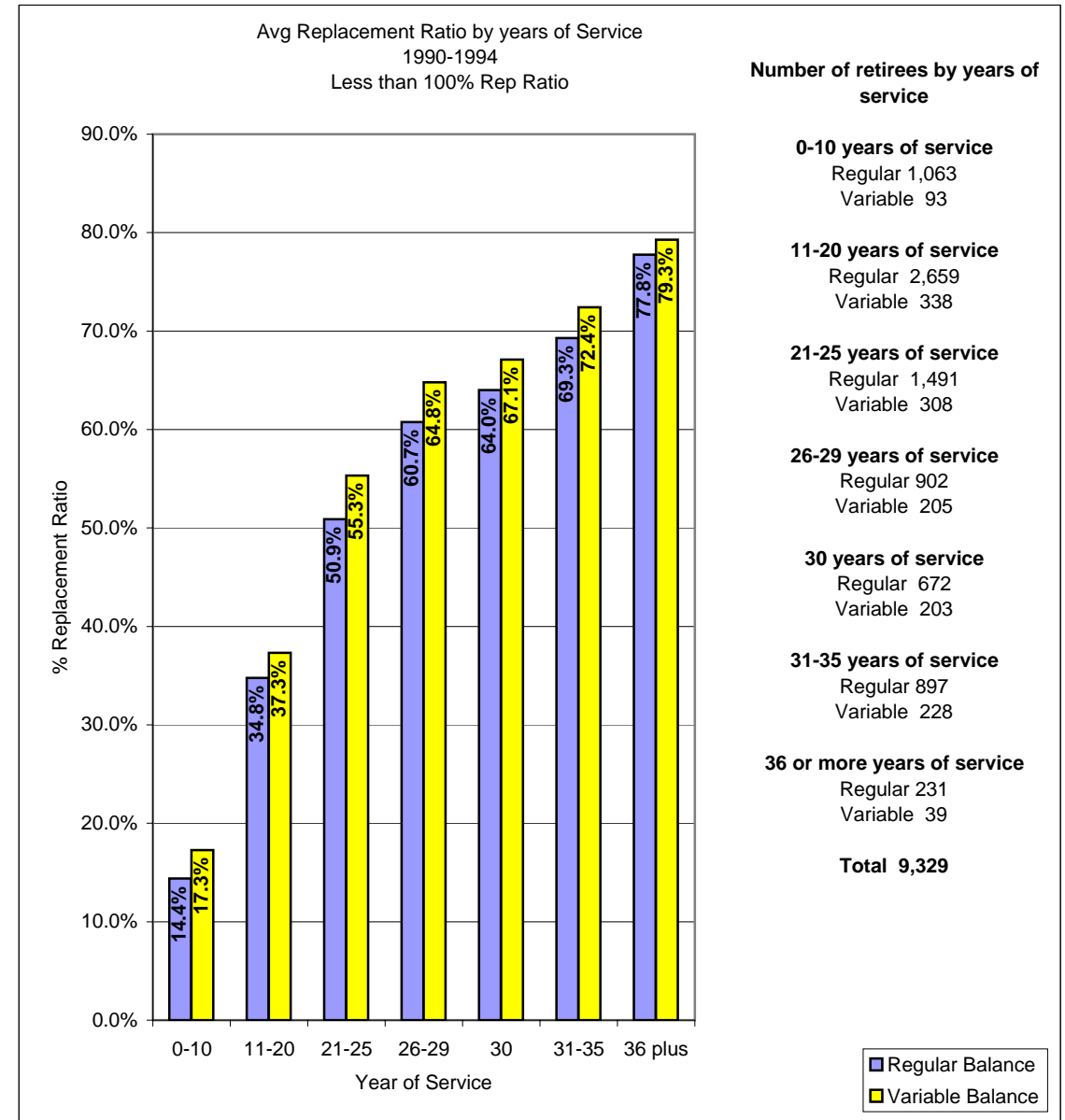
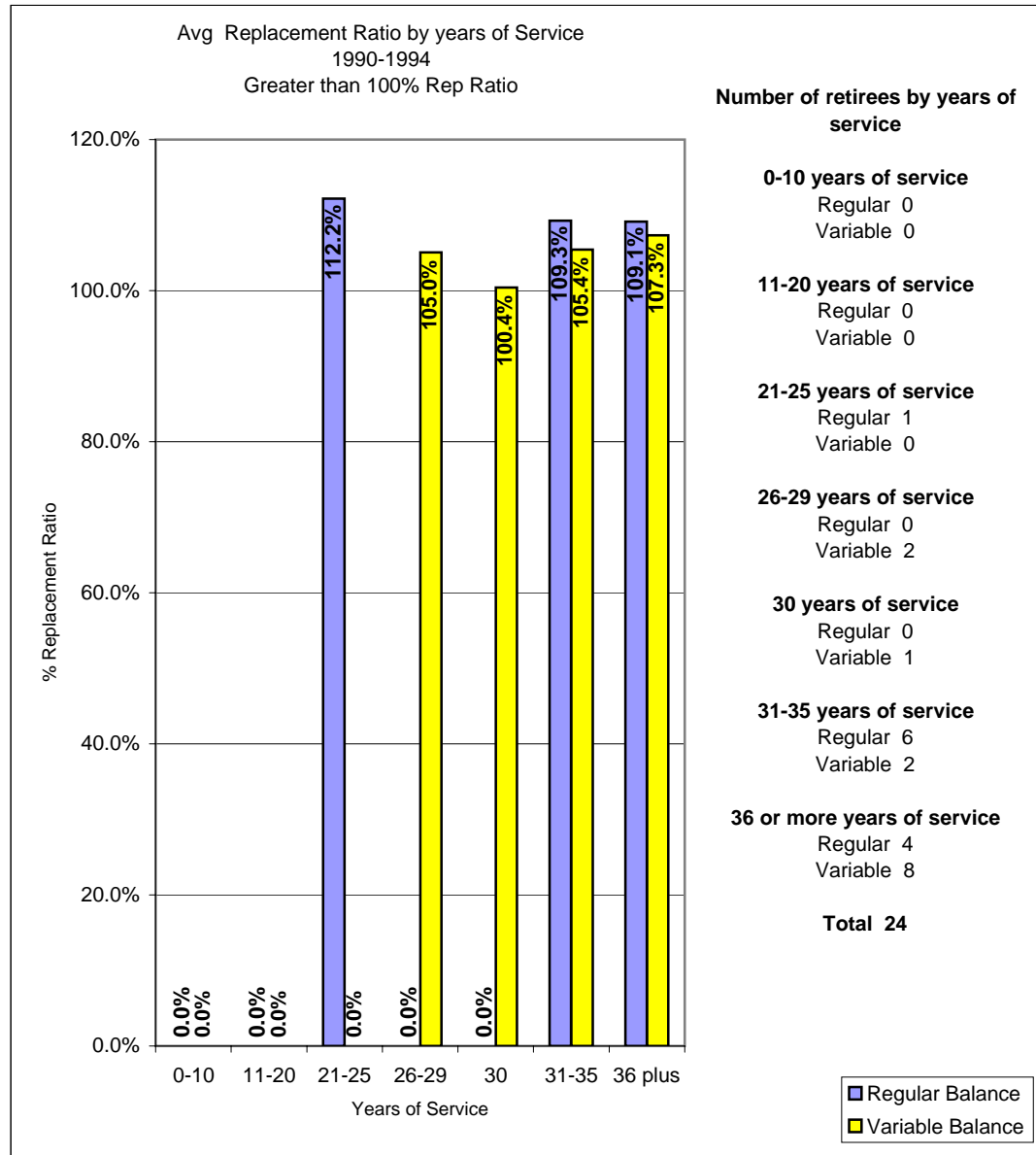
**1/2004-11/2004**  
 Greater than 100% - 115 retirees  
 Less than 100% - 2,209 retirees  
 Percentage of retirees with greater than 100% RR **4.95%**  
**30 plus years of service- 64 retirees**

**Population with greater than 100% RR**  
**3,806**  
**Total with 30 plus years of service**  
**2398**

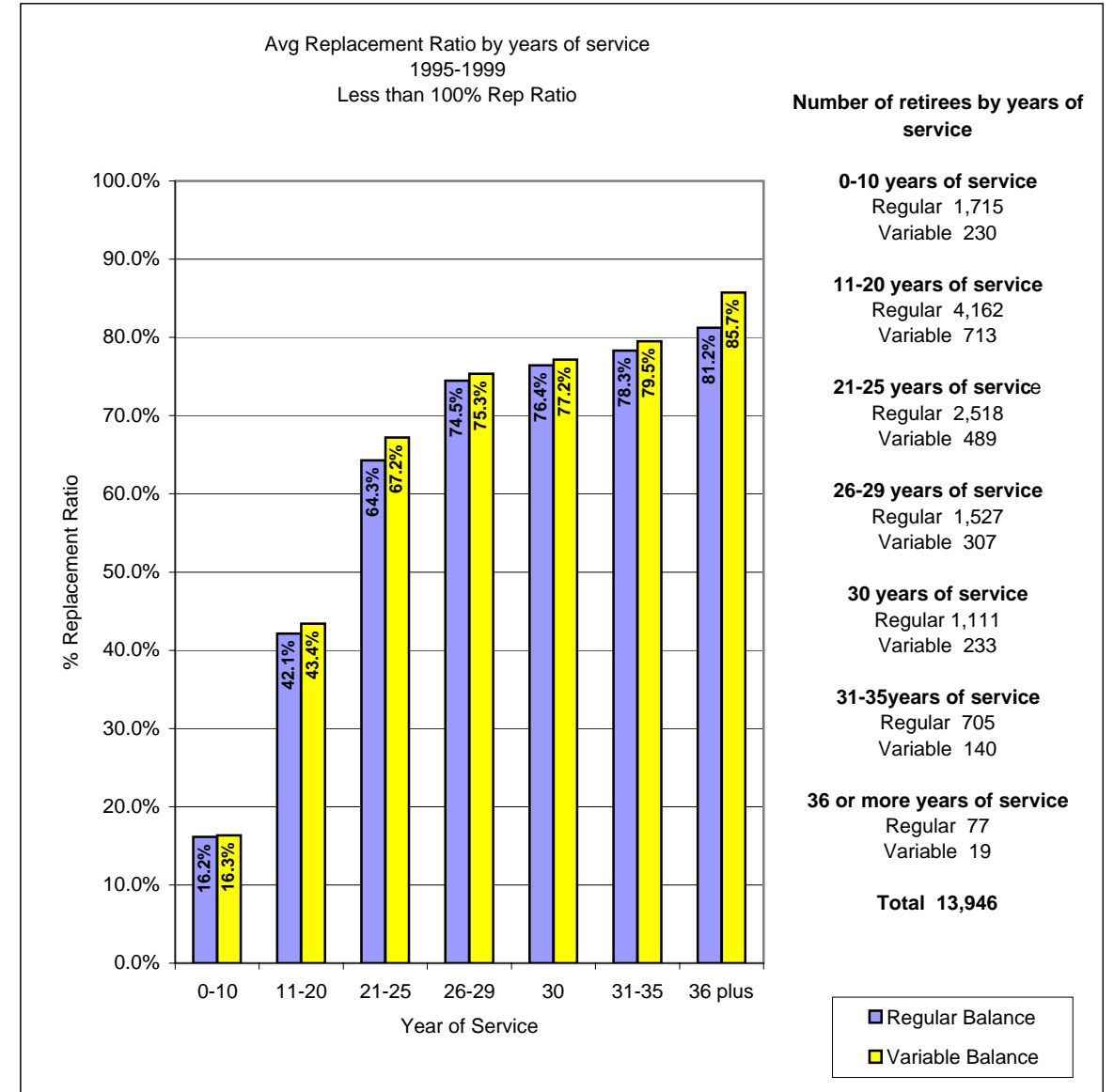
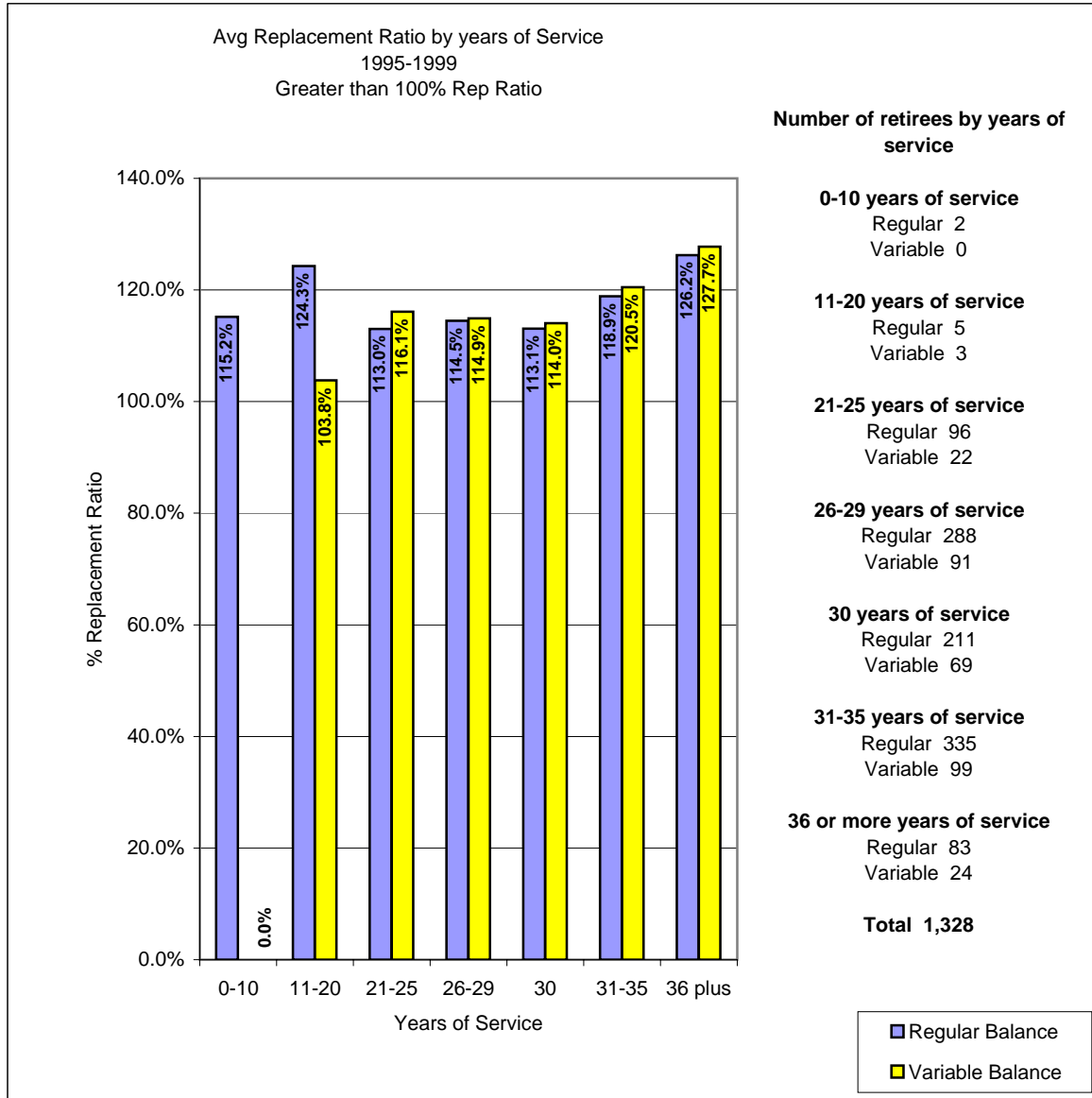
**Population with less than 100% RR**  
**38,287**

**Overall Population**  
**42,093**

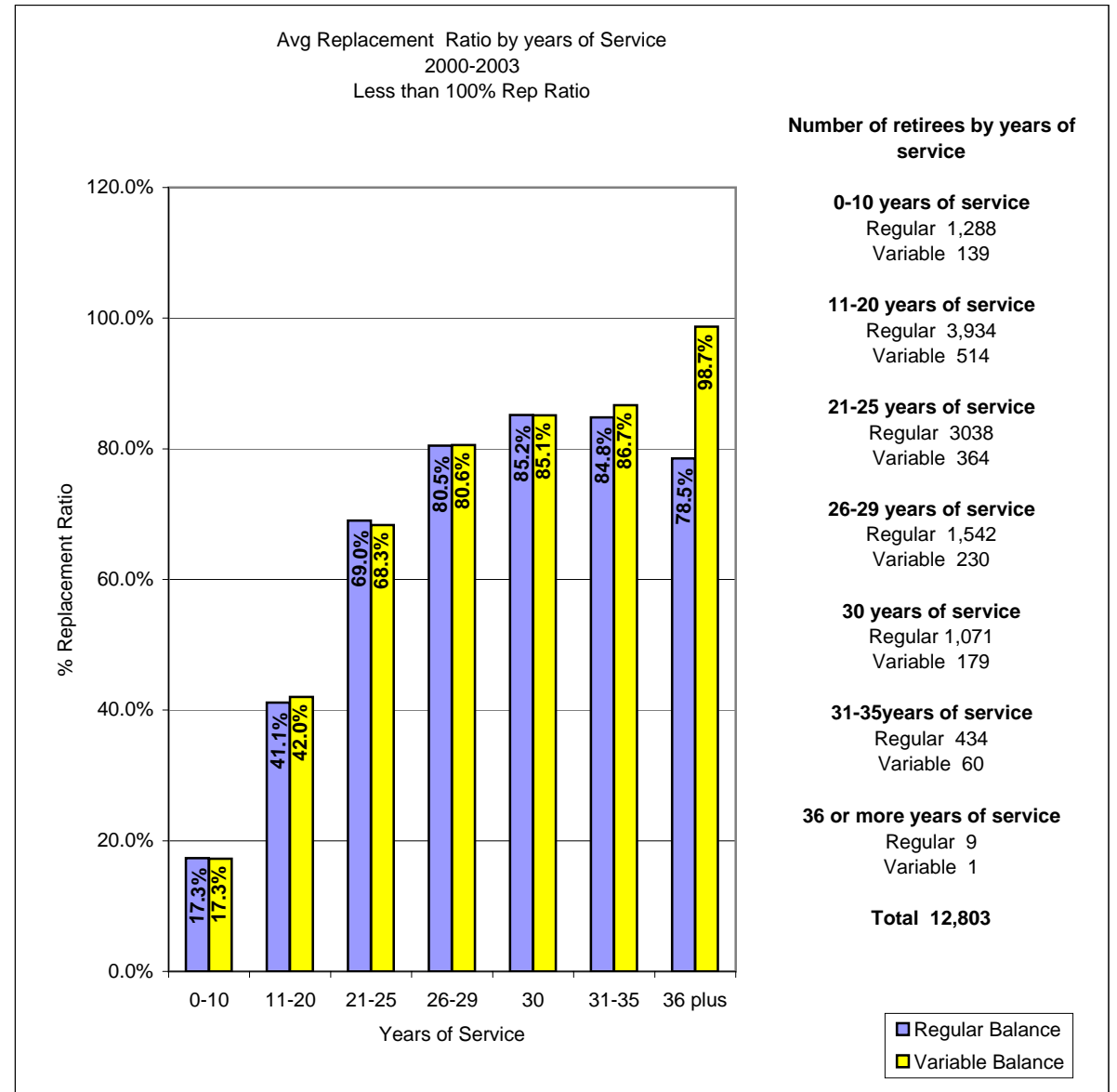
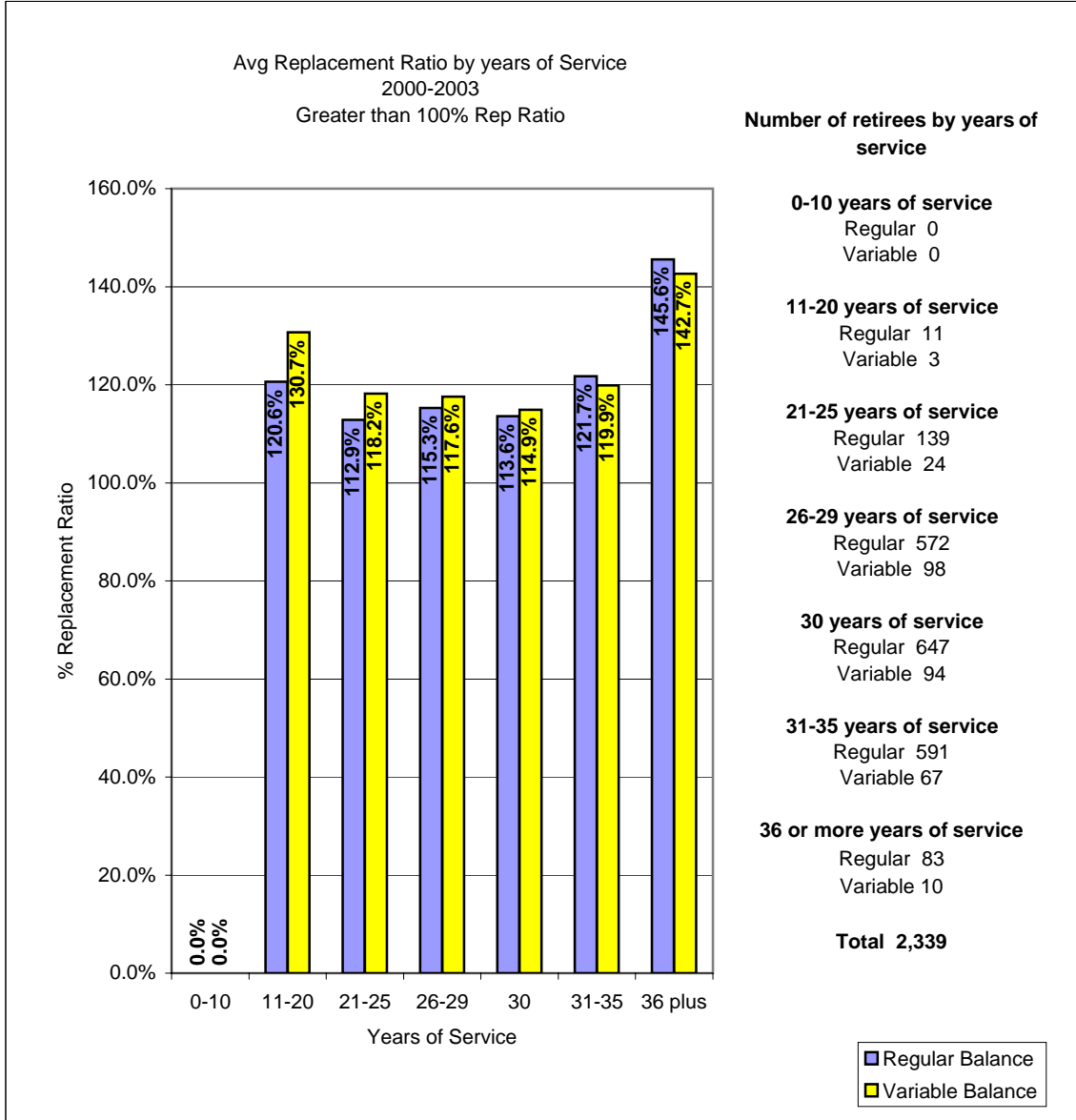
### Average Replacement Ratio by Years of Service



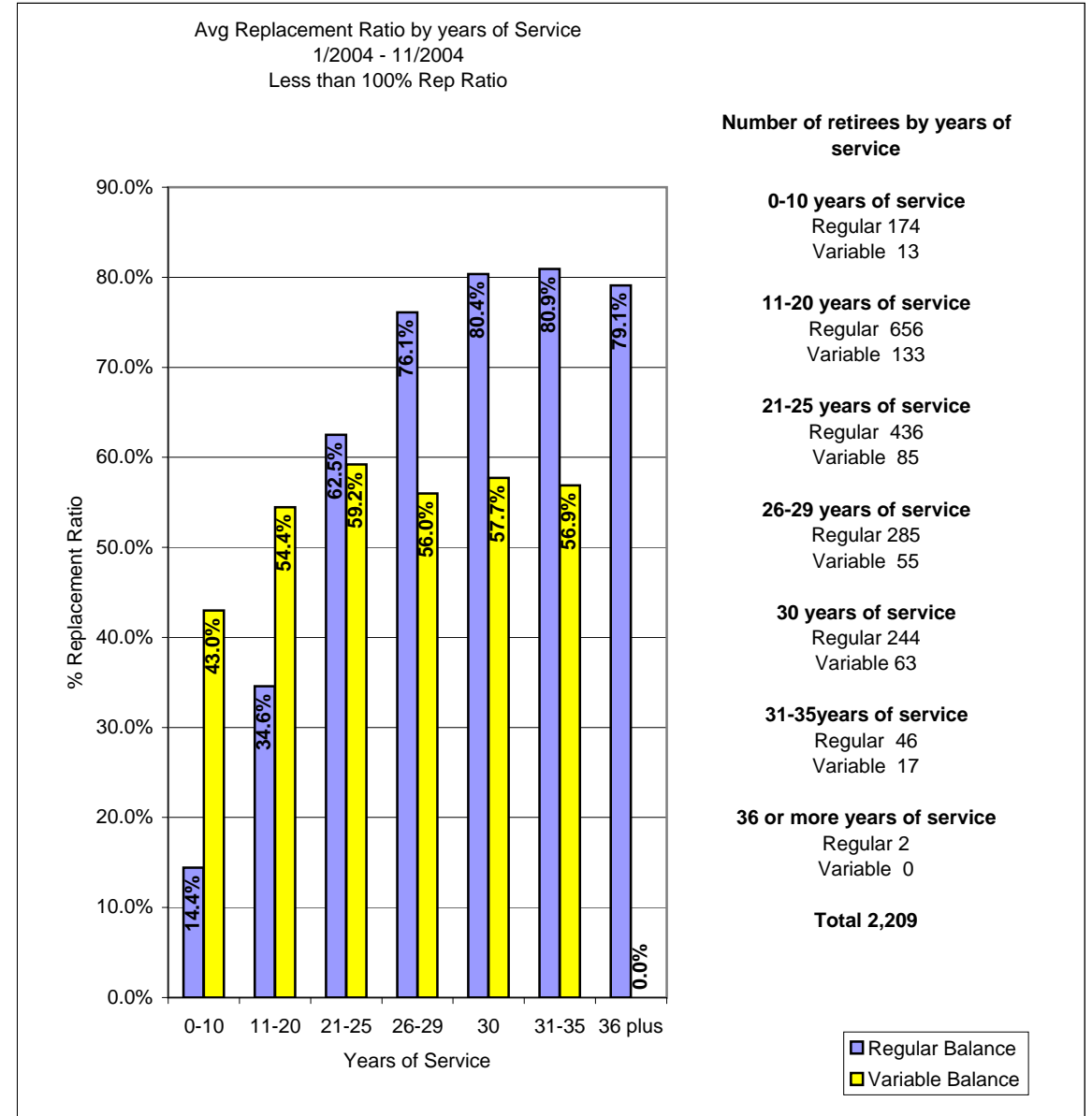
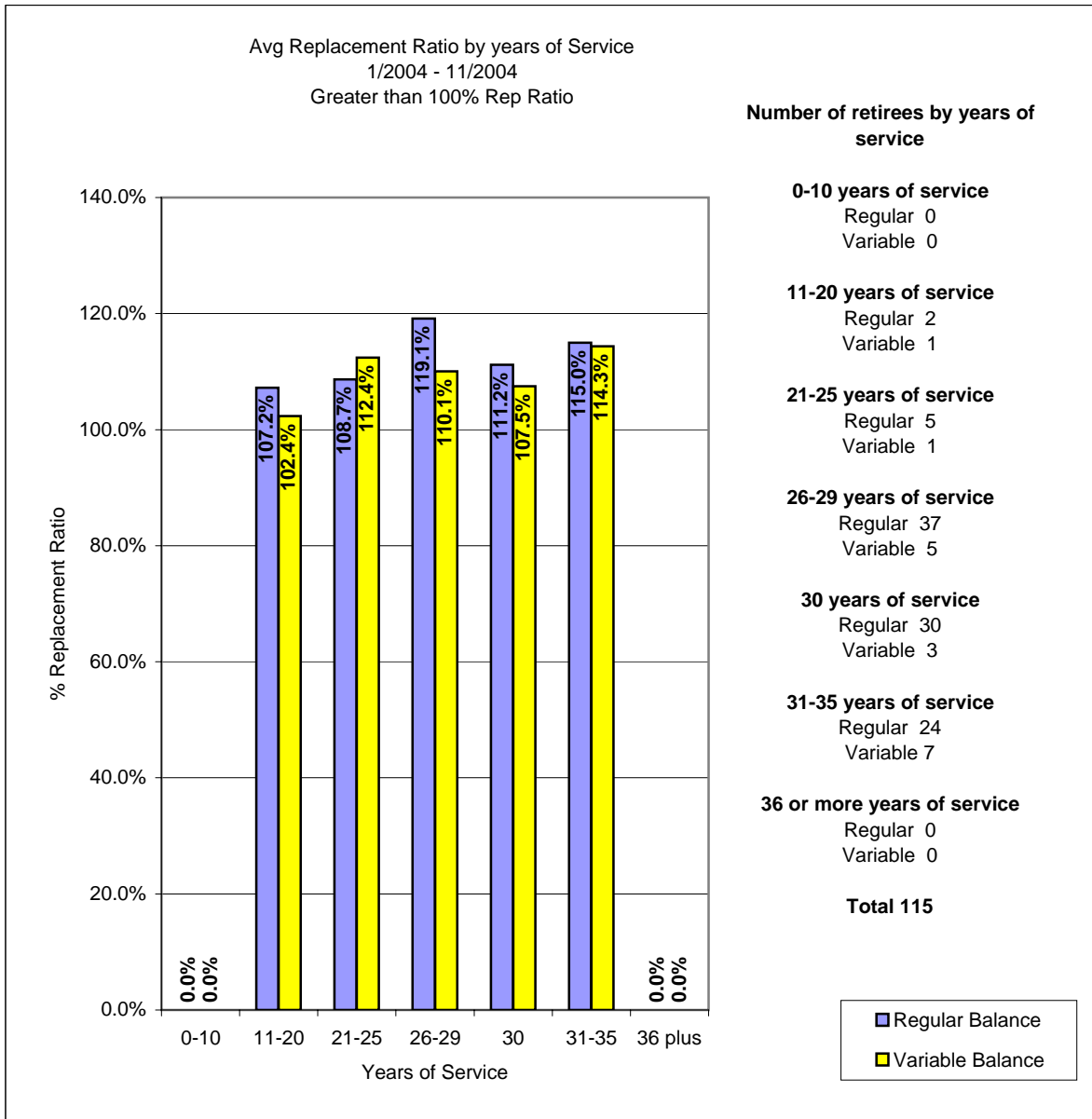
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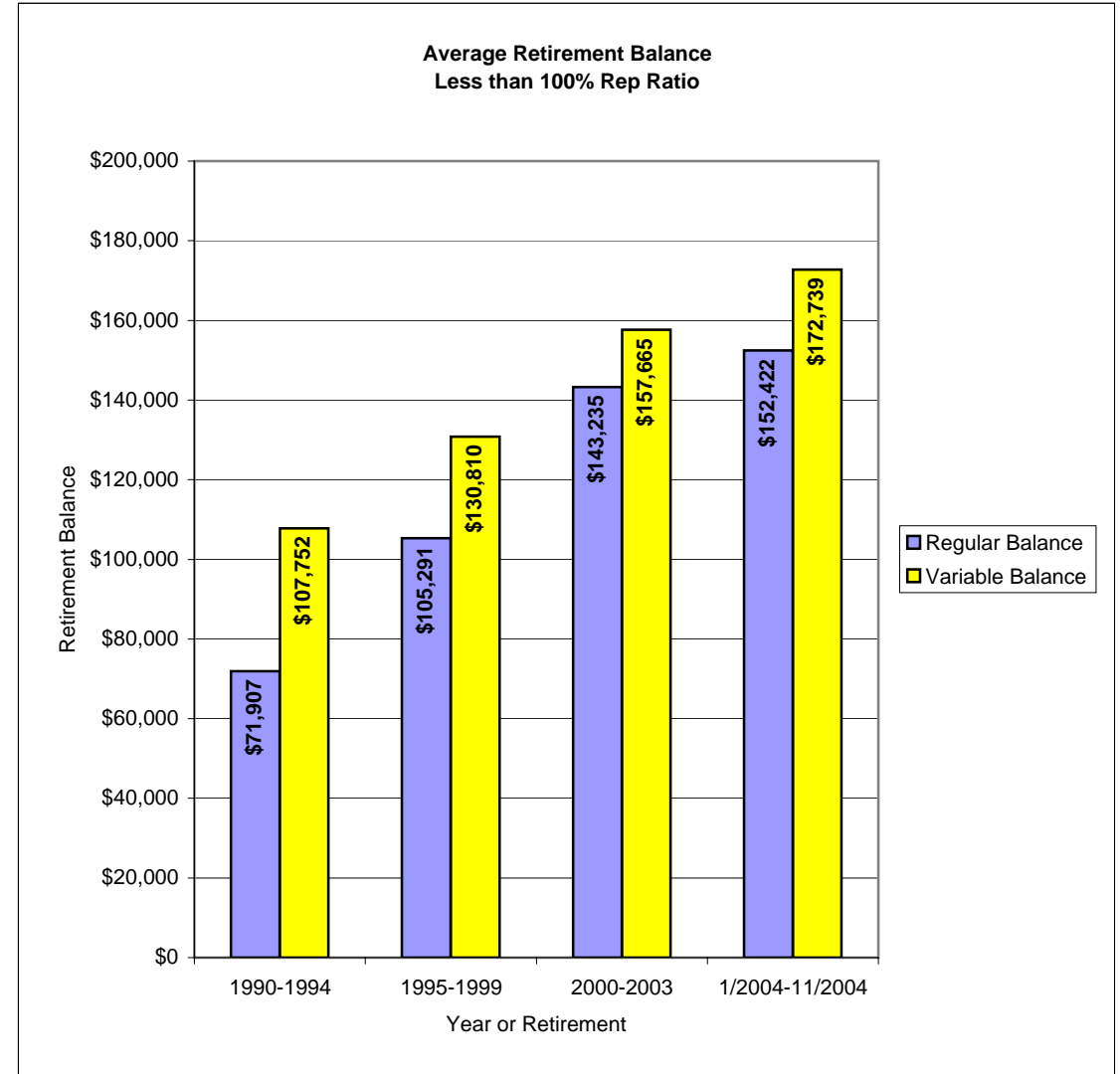
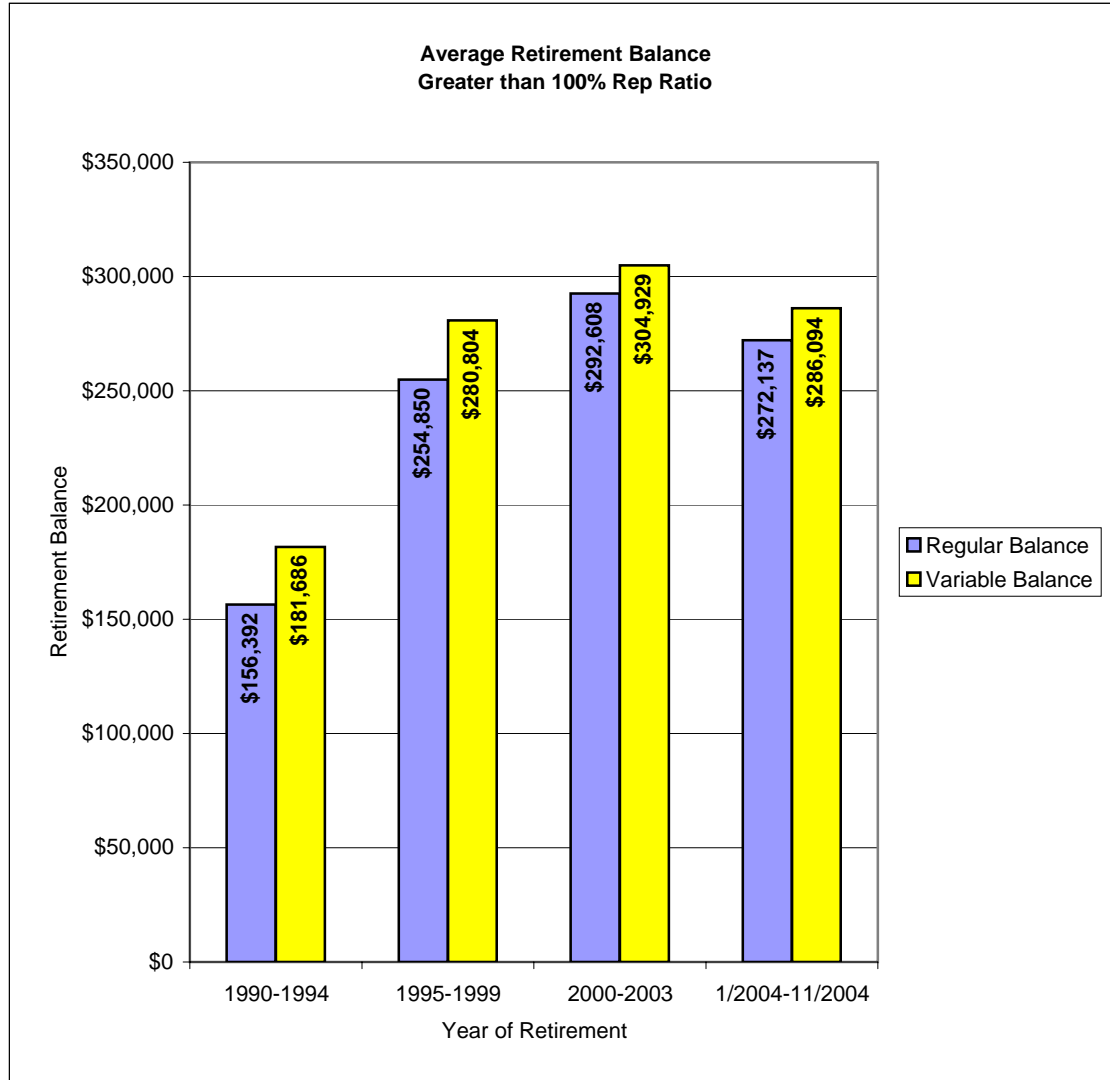
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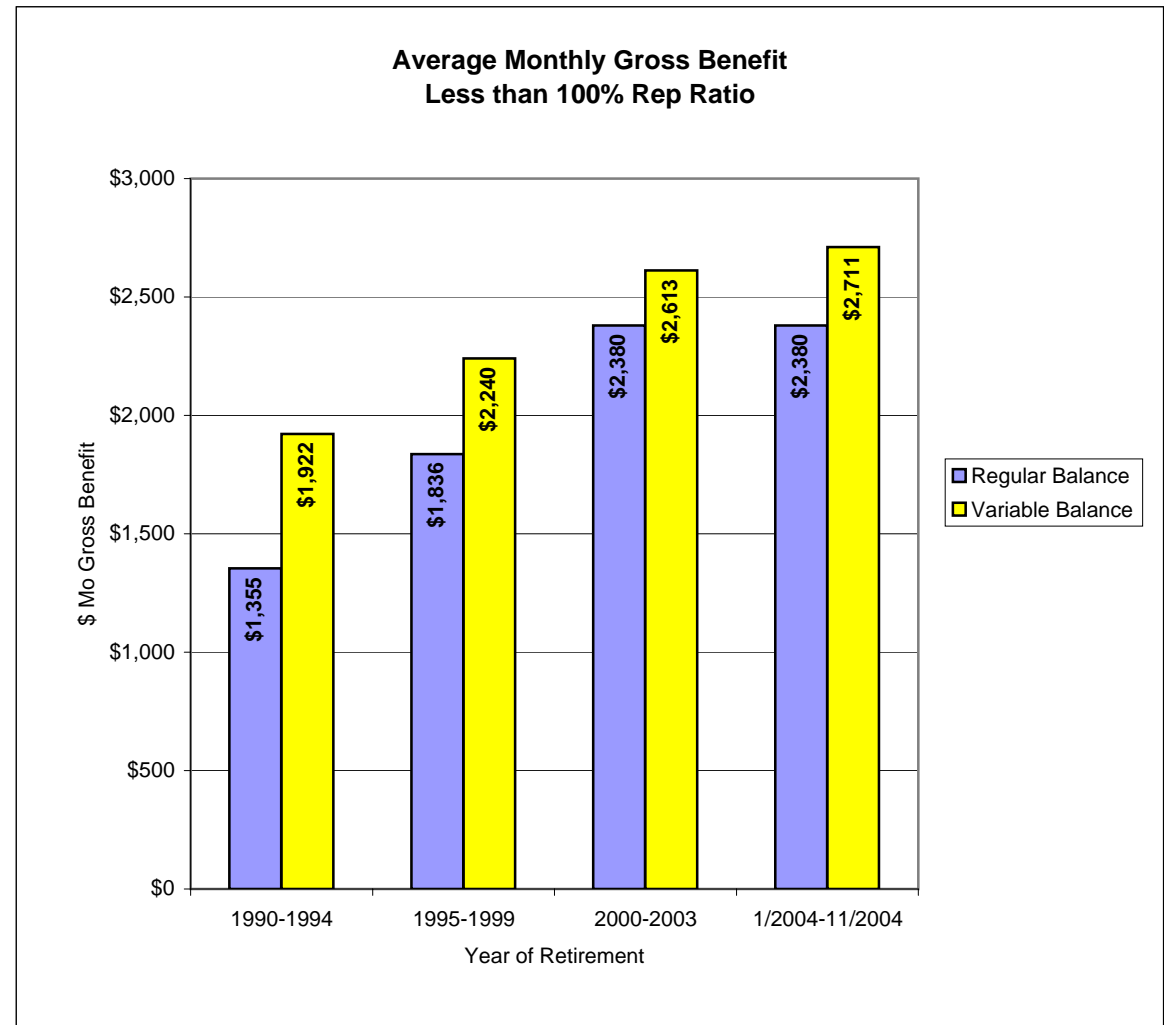
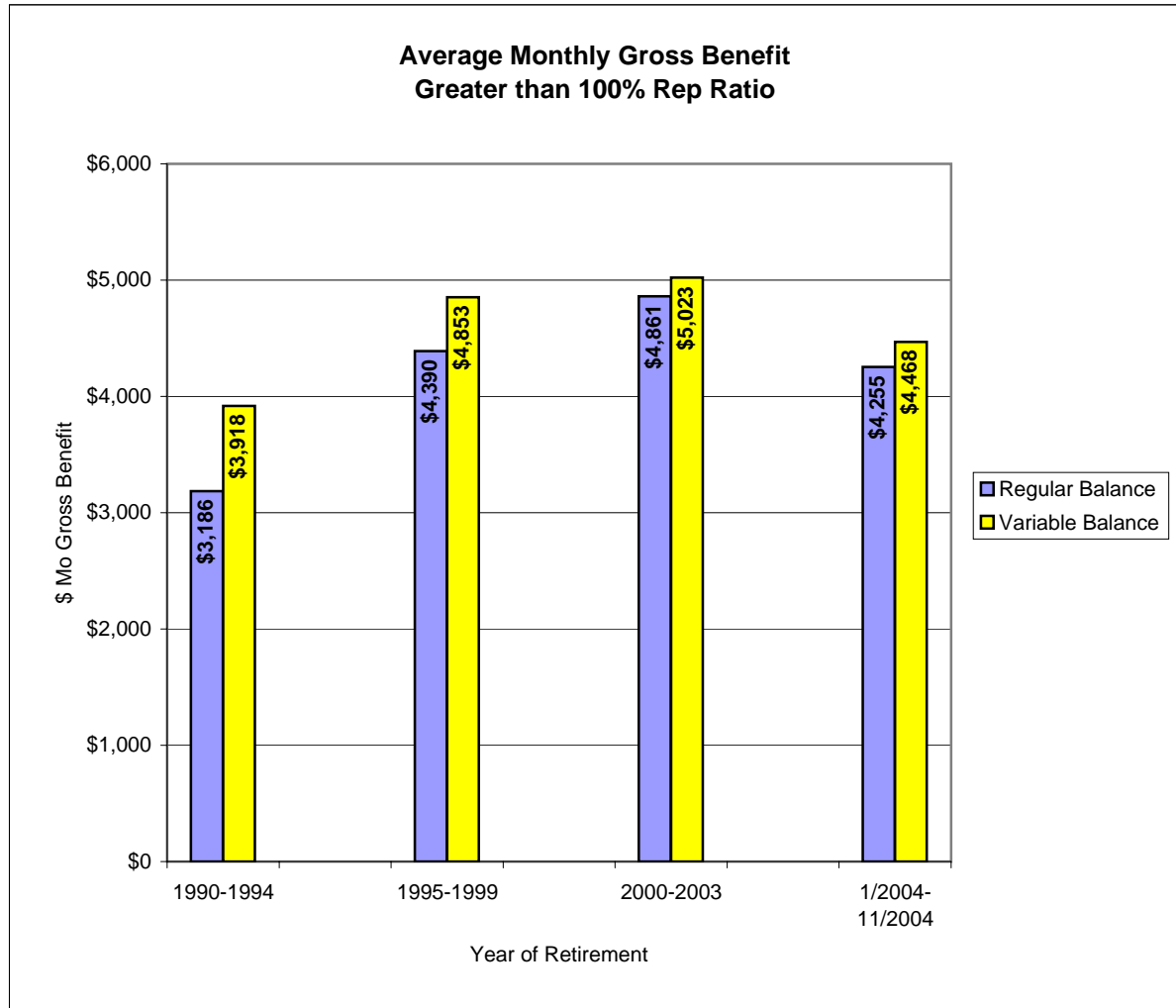
### Average Replacement Ratio by years of Service



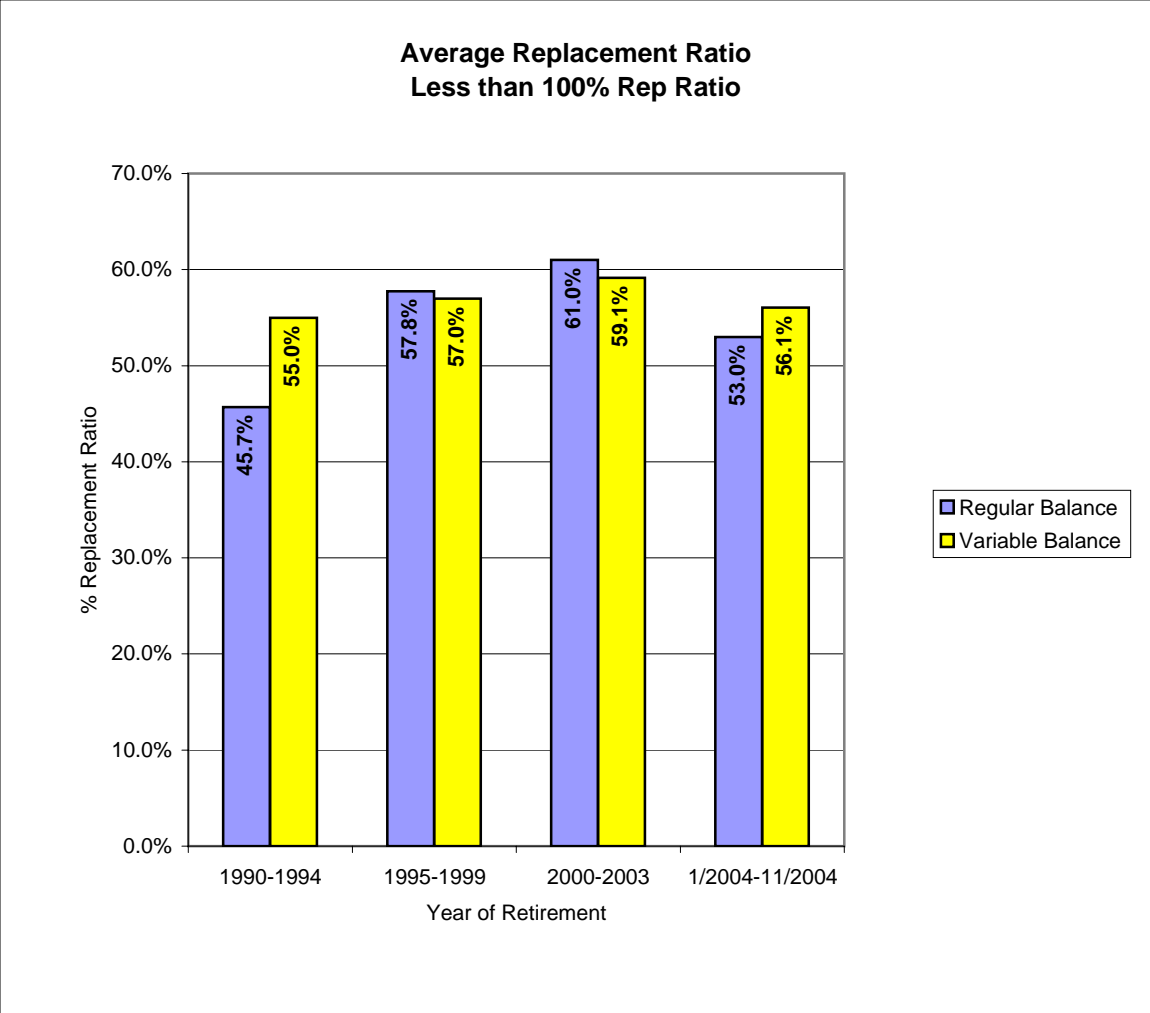
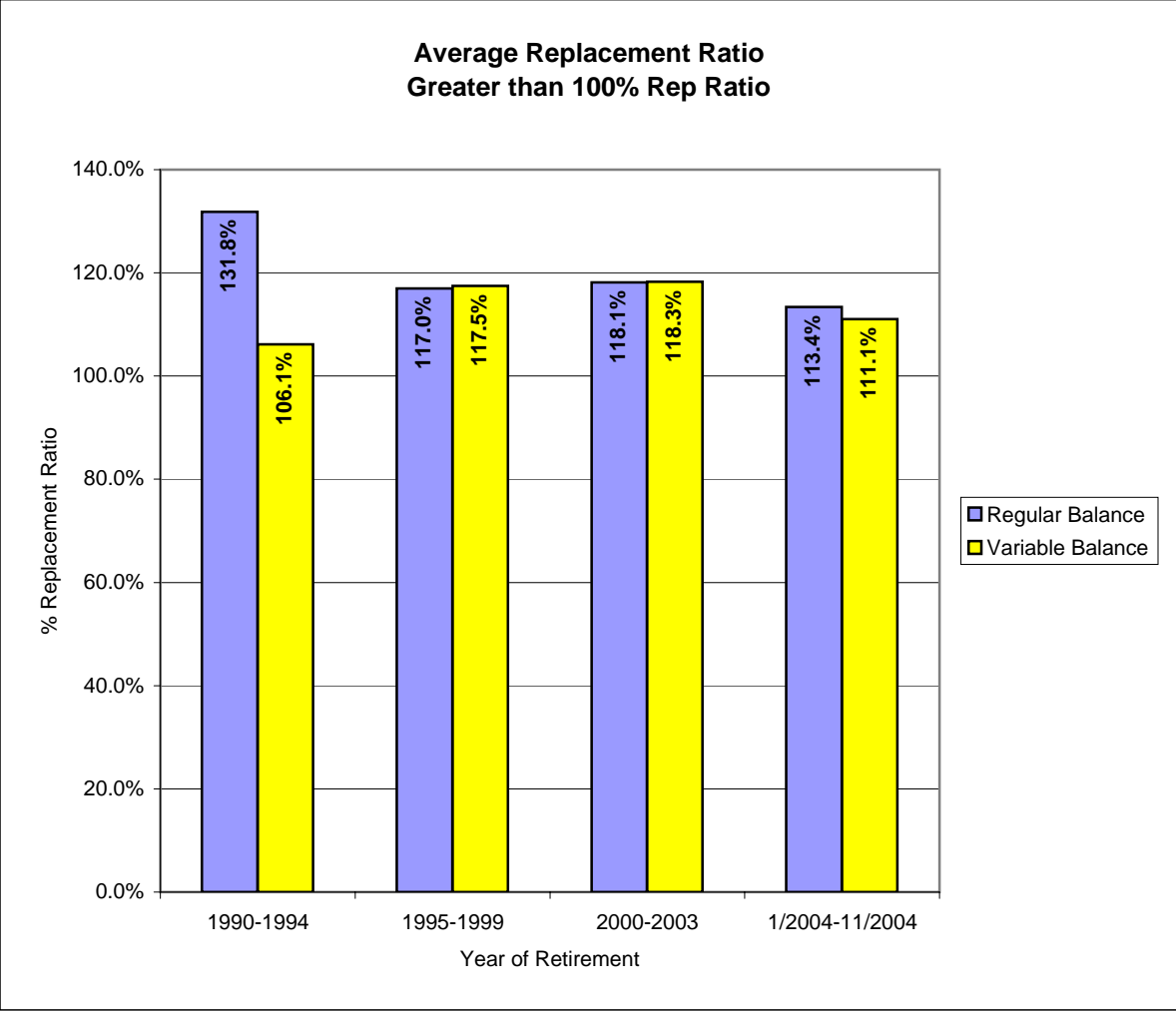
### Average Retirement Account Balance



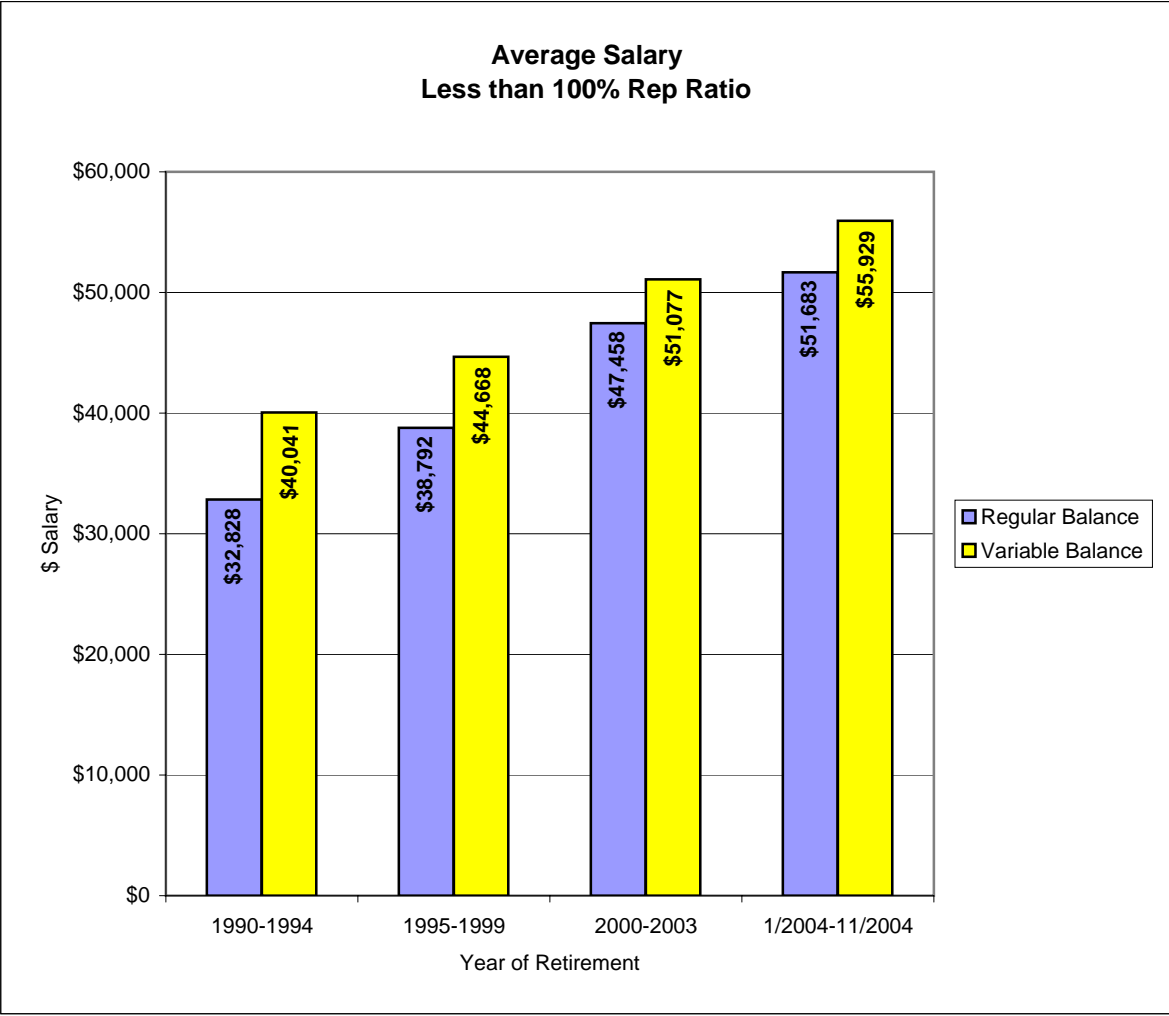
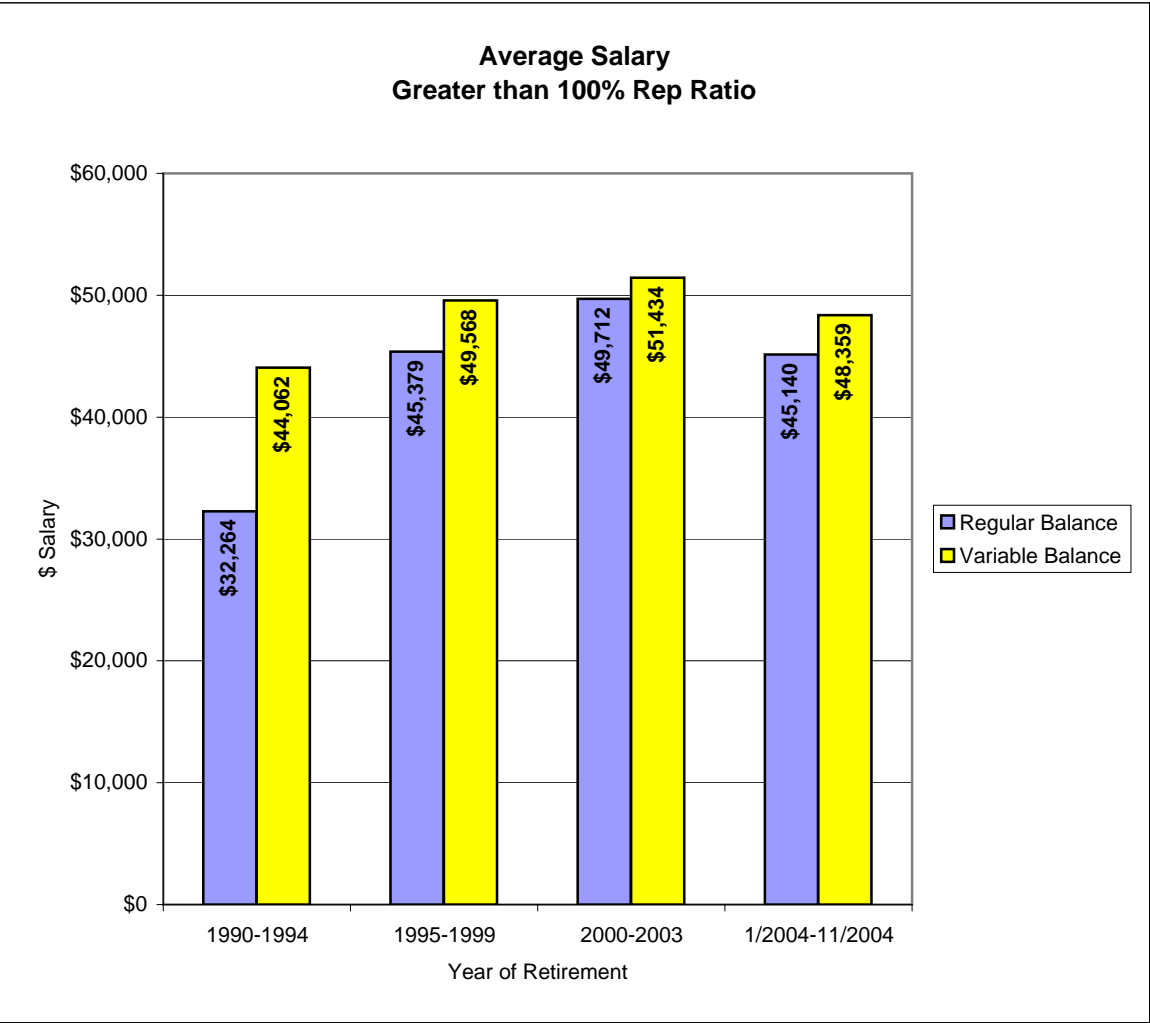
### Average Monthly Gross Benefit



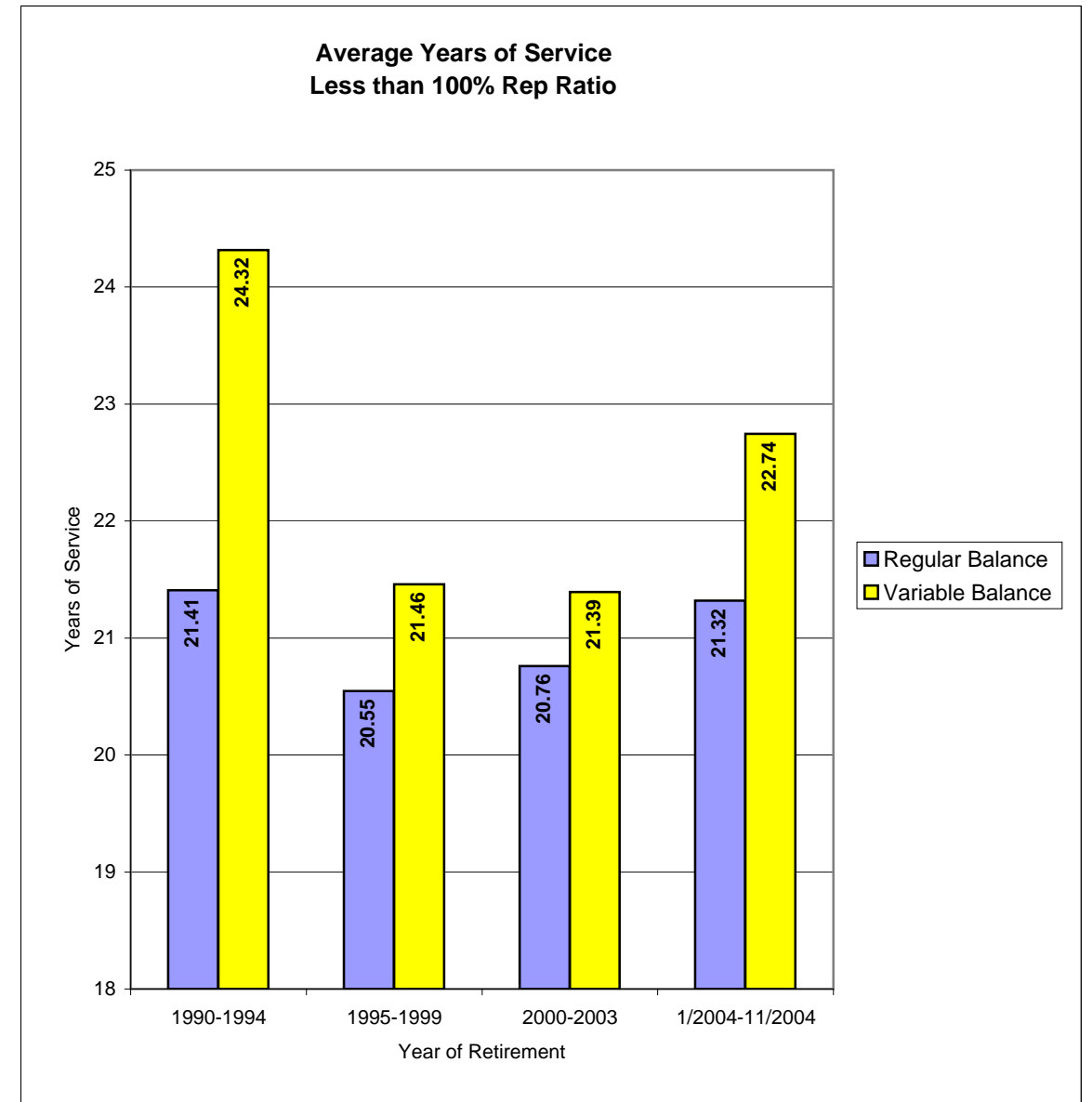
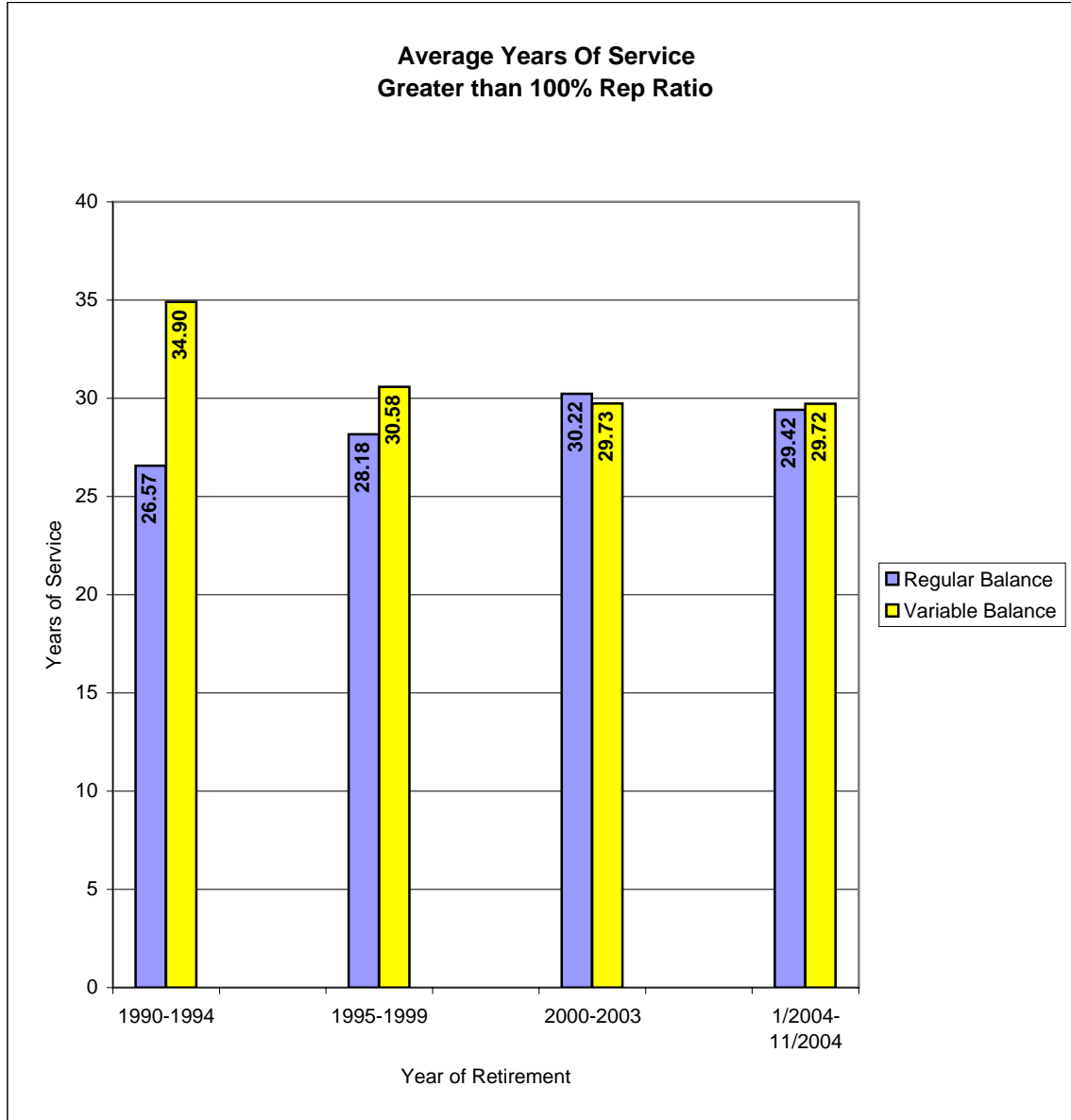
Average Replacement Ratio



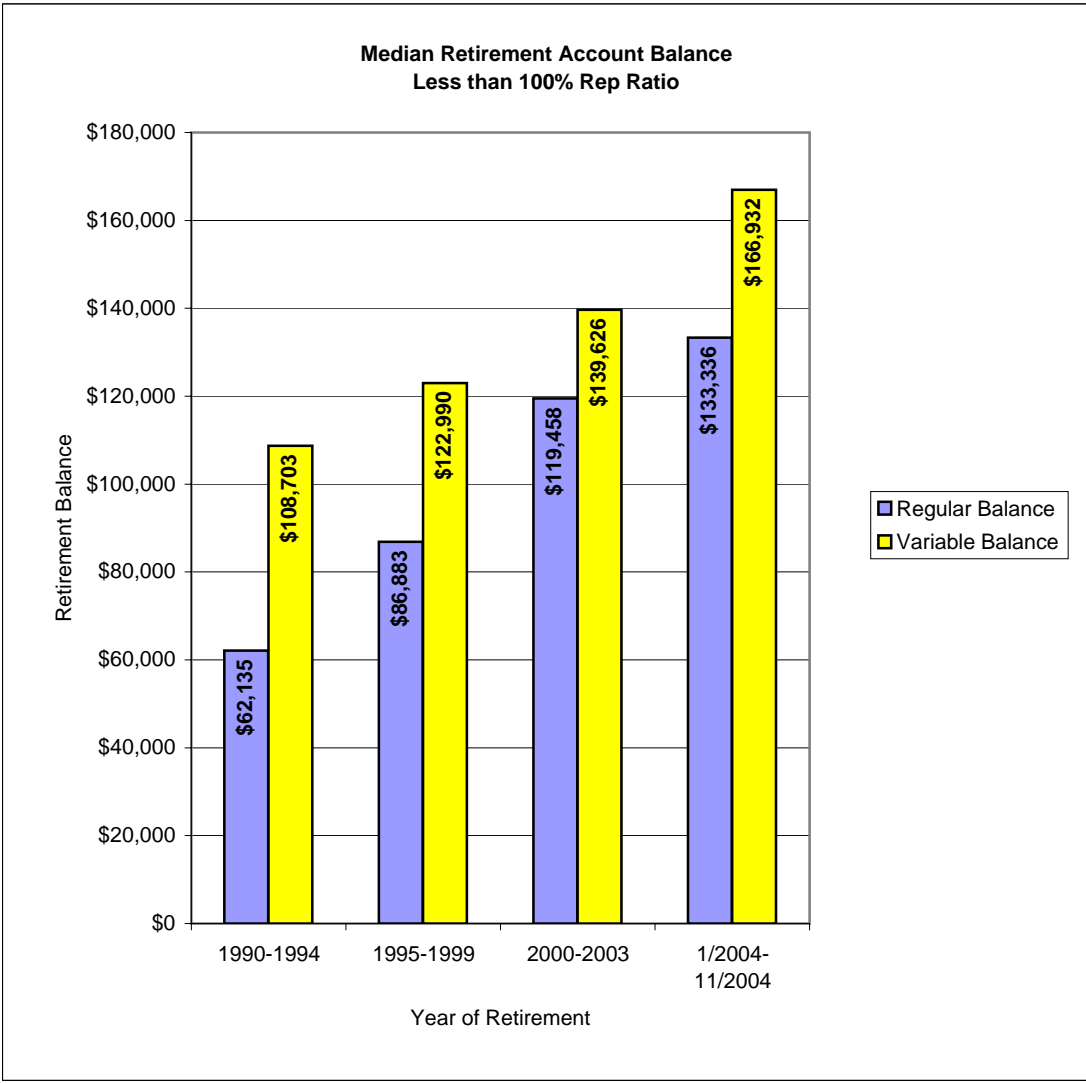
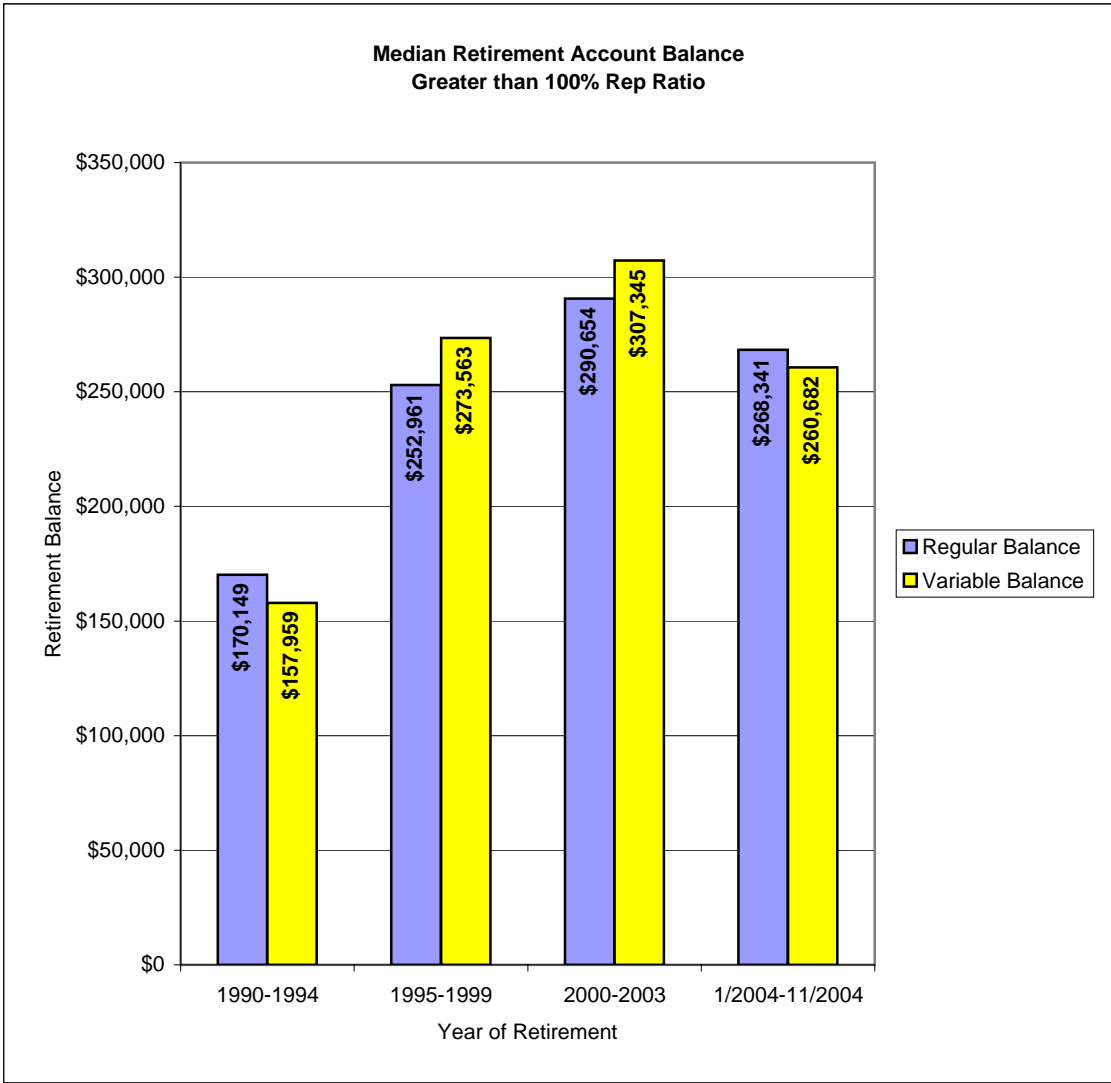
Average Salary



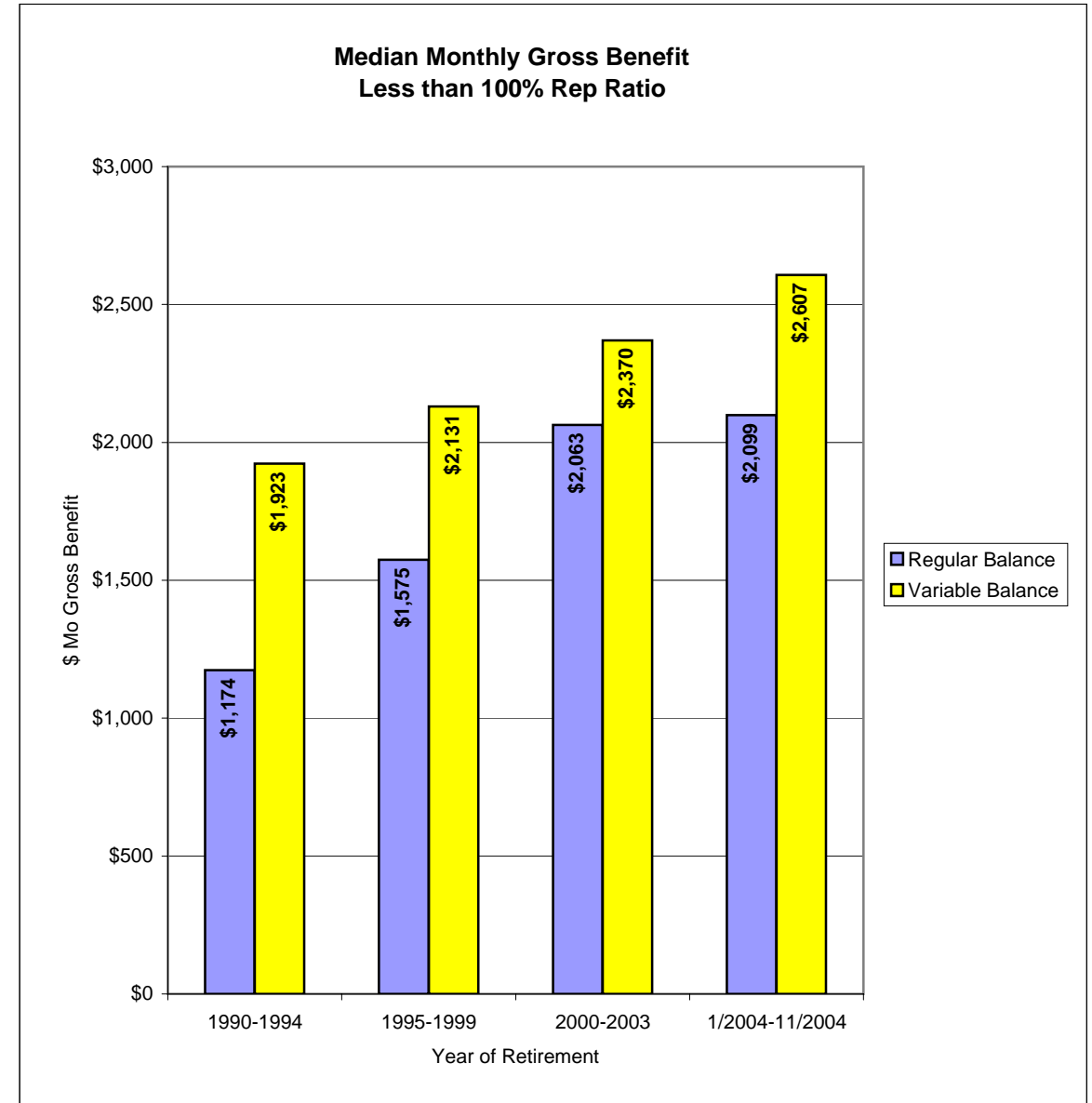
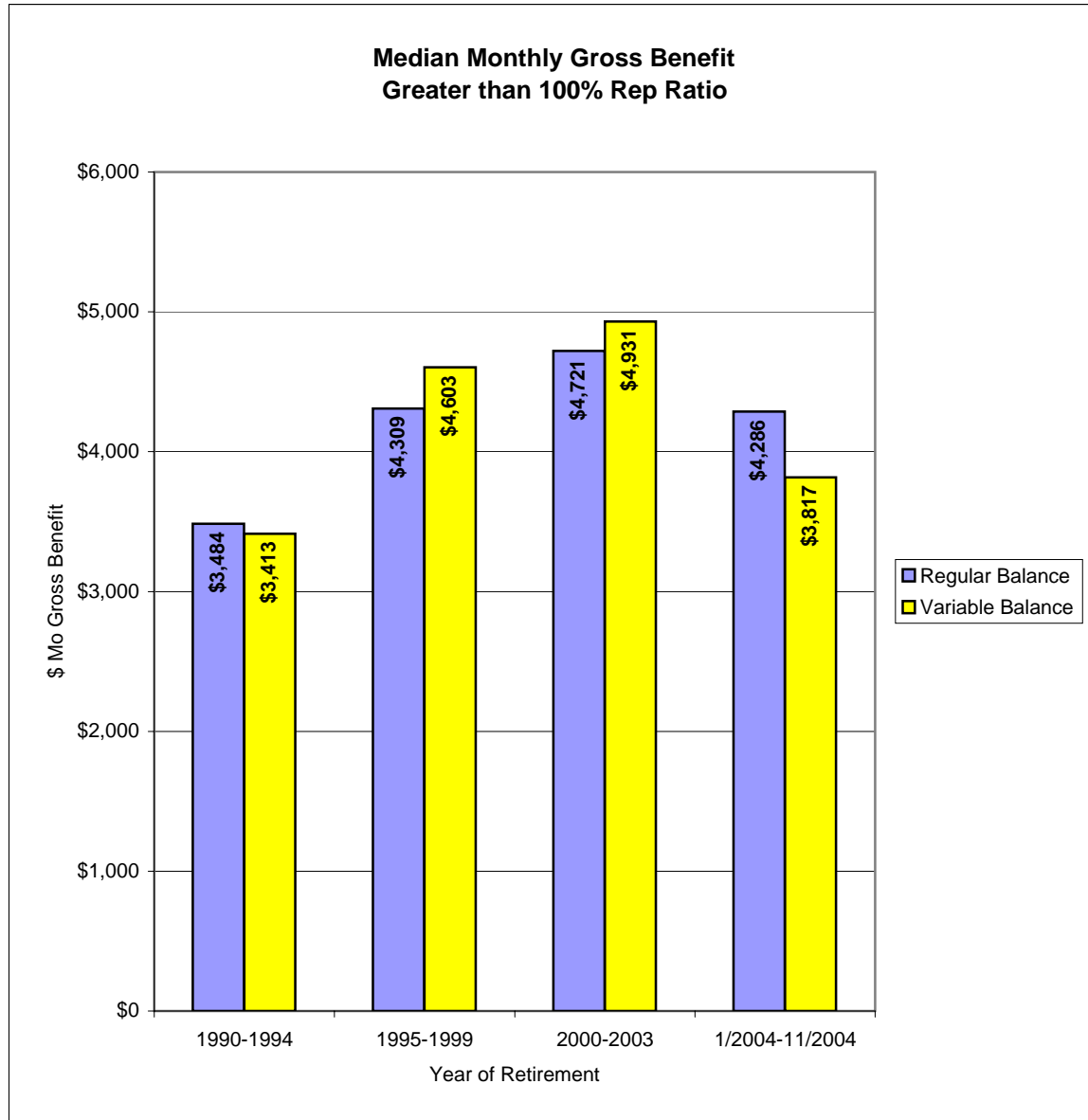
Average Years of Service



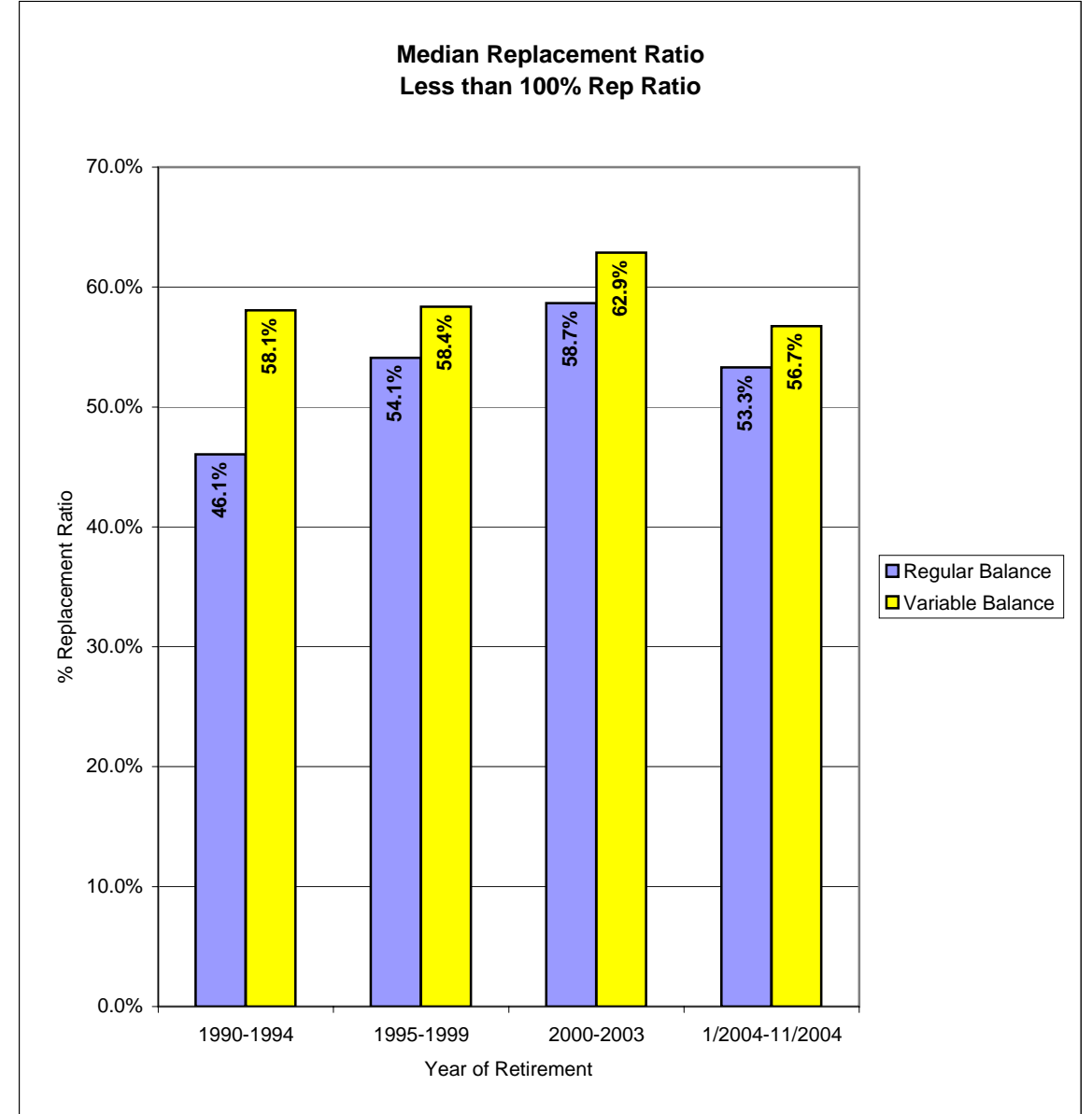
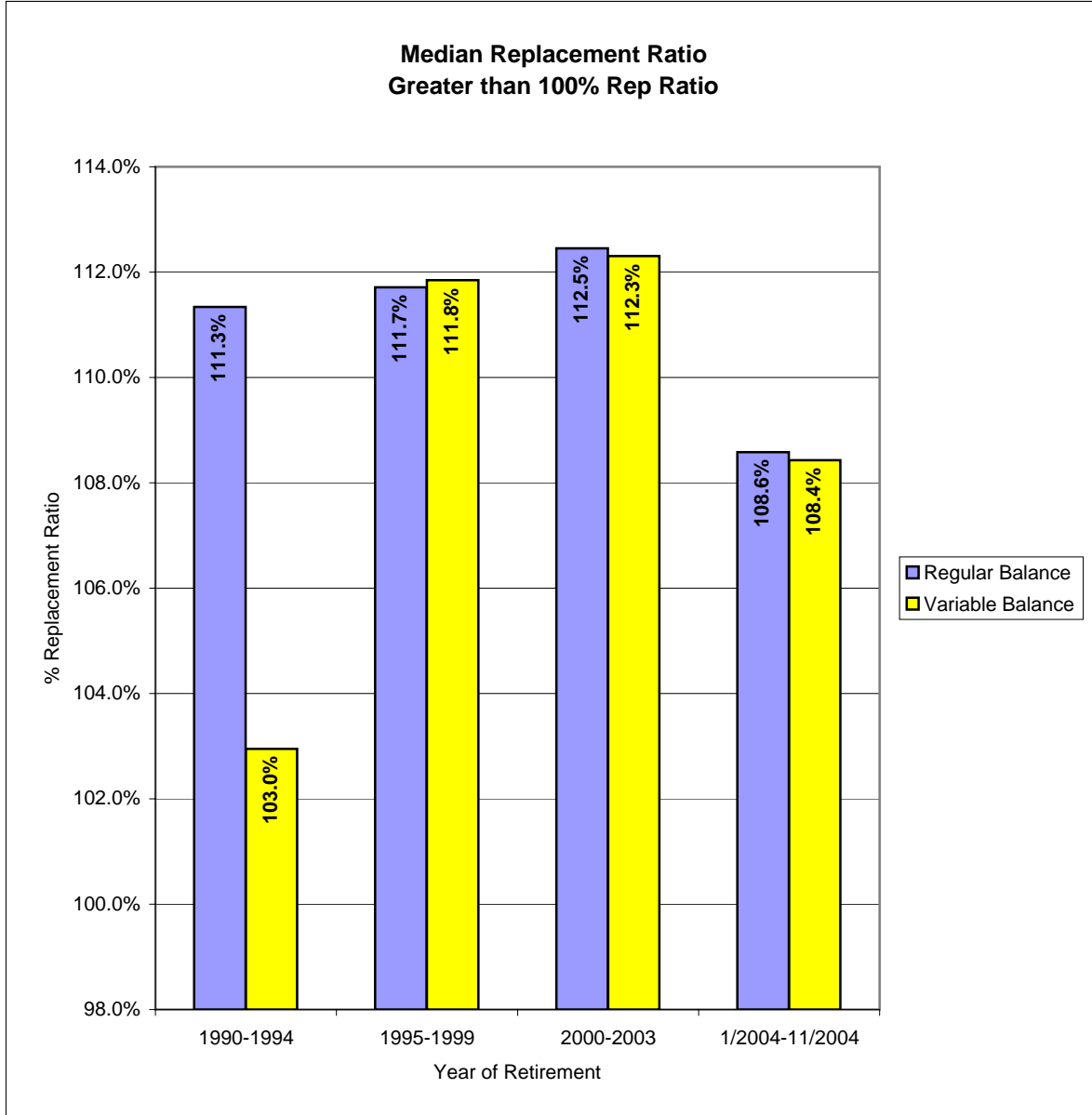
### Median Retirement Account Balance



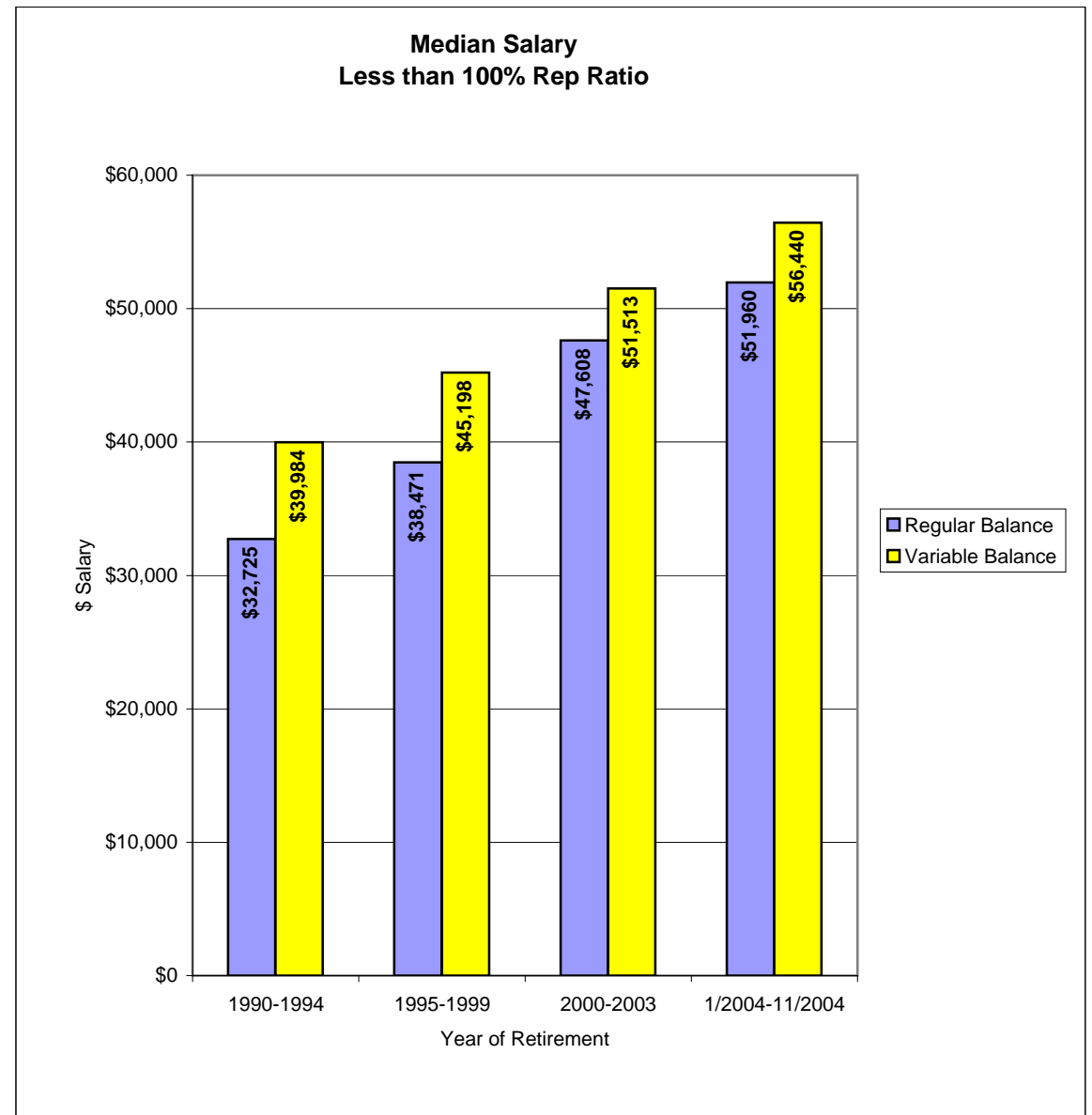
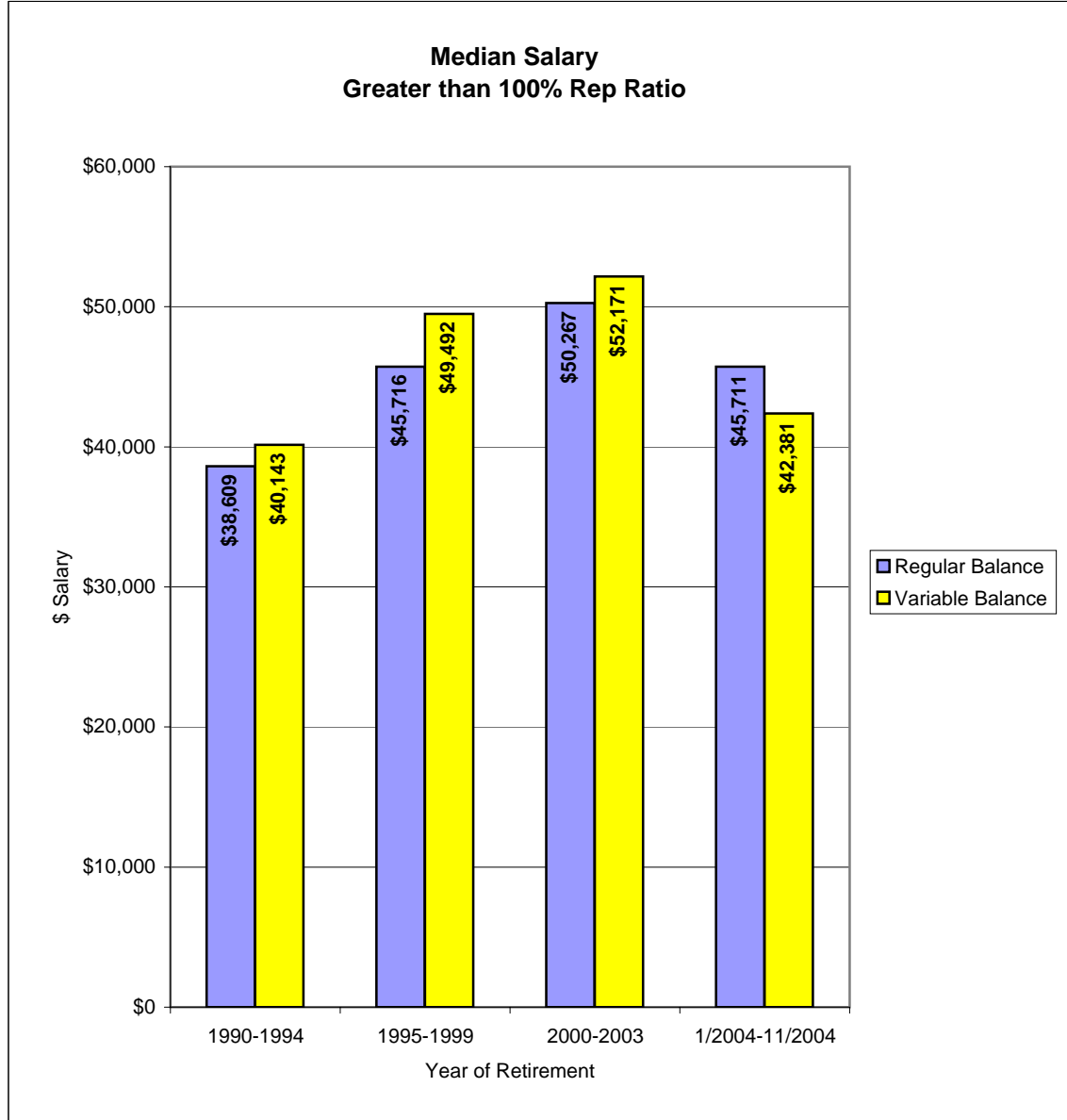
### Median Monthly Gross Benefit



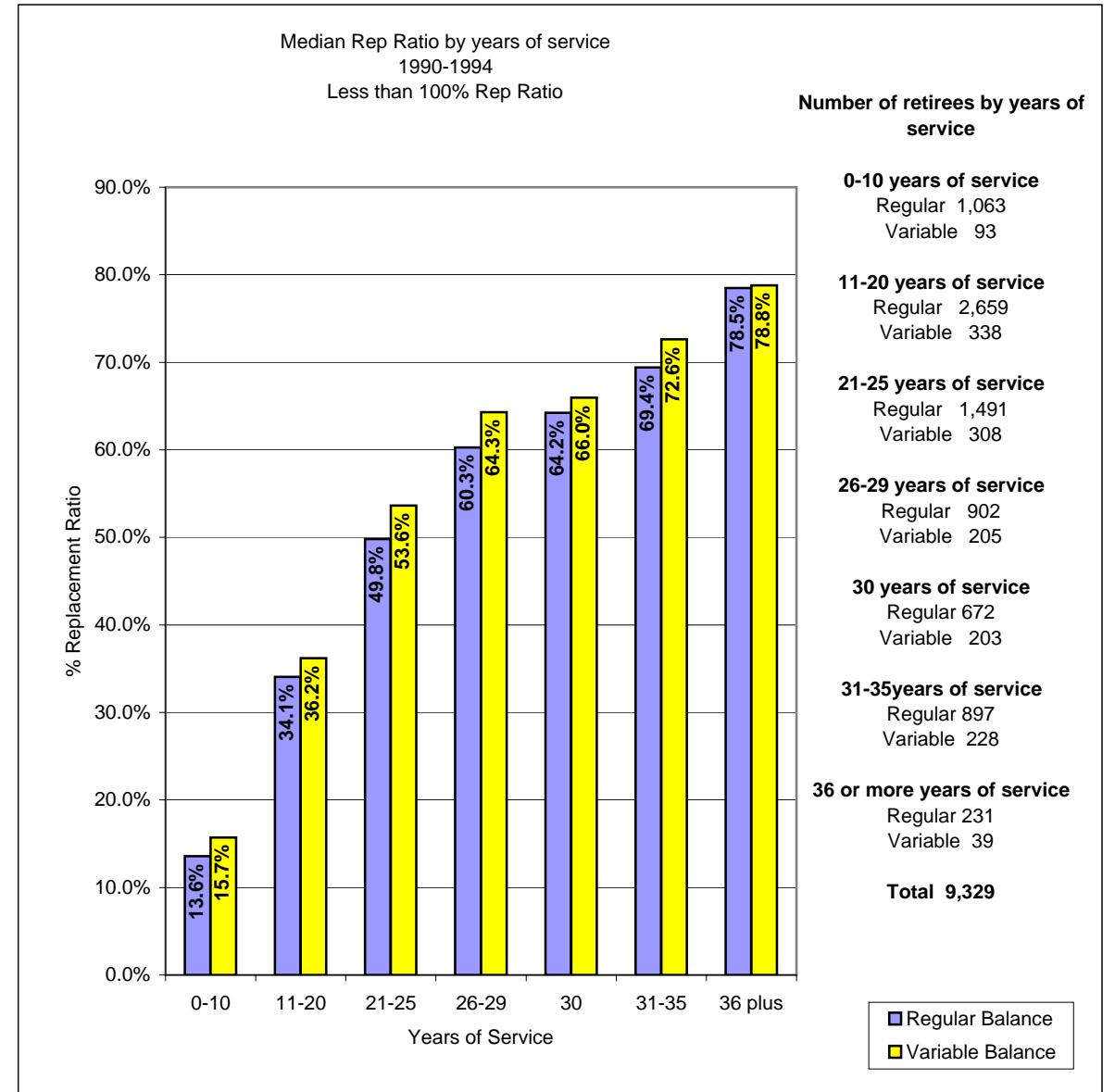
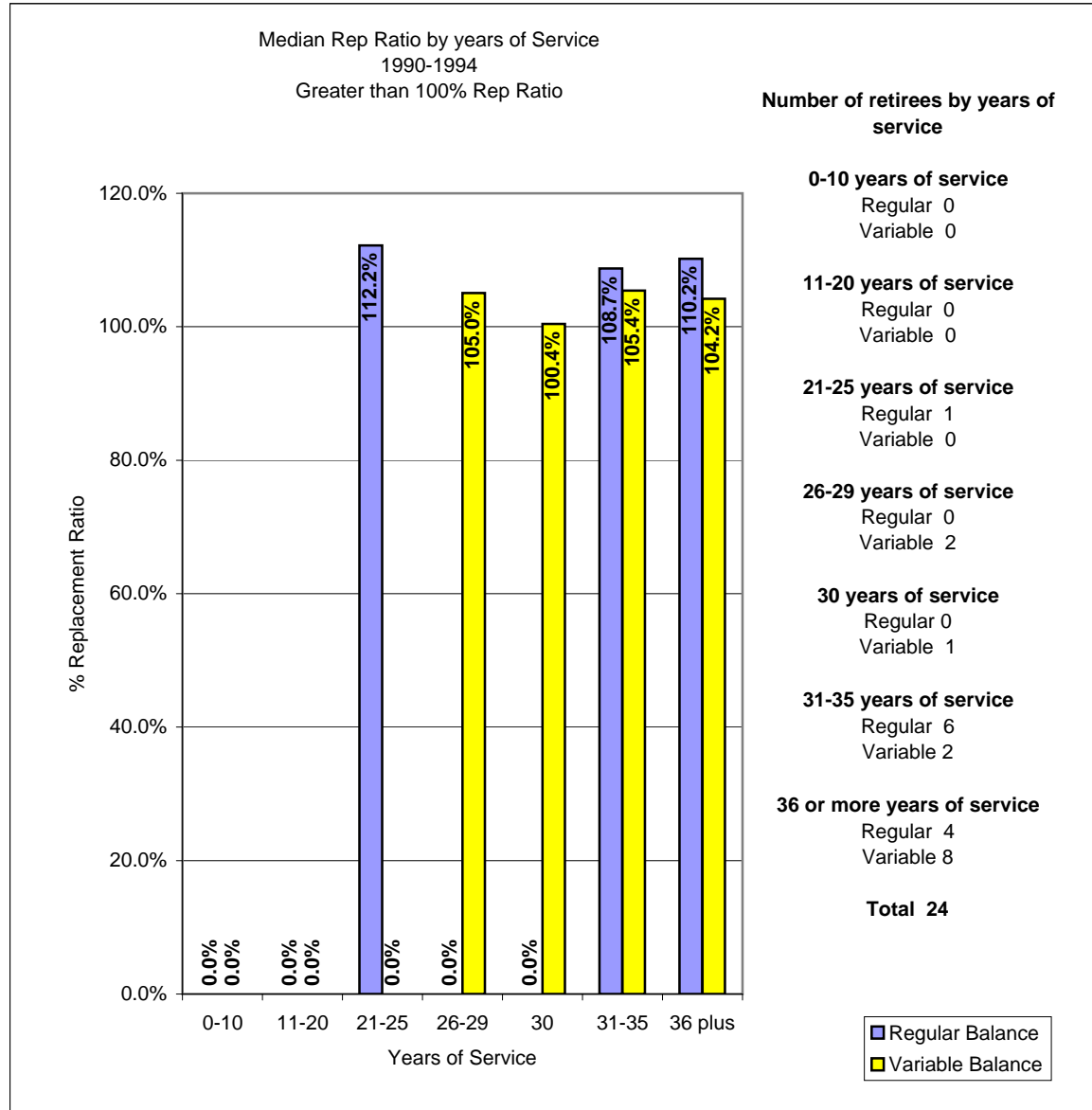
### Median Replacement Ratio



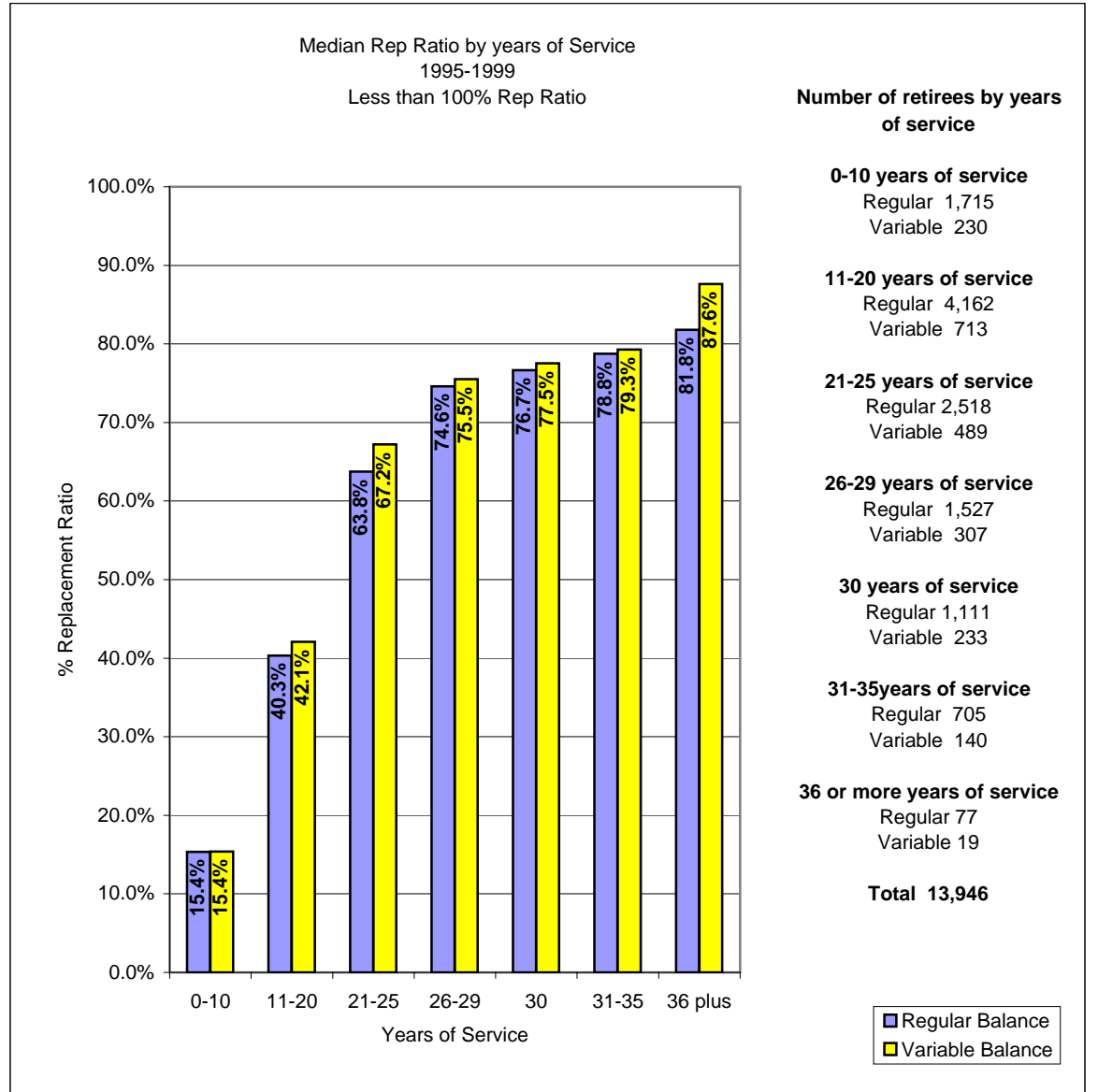
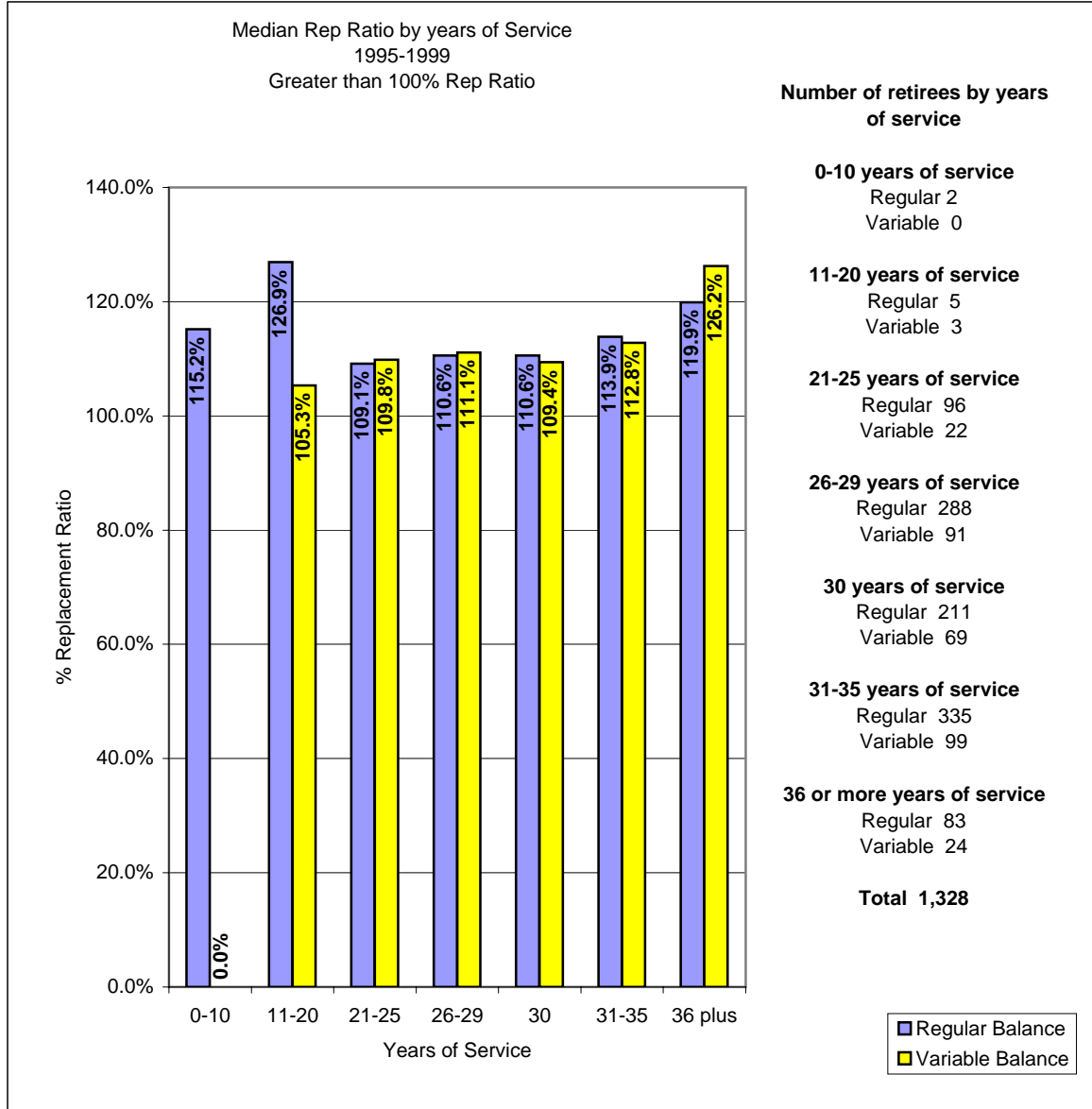
**Median Salary**



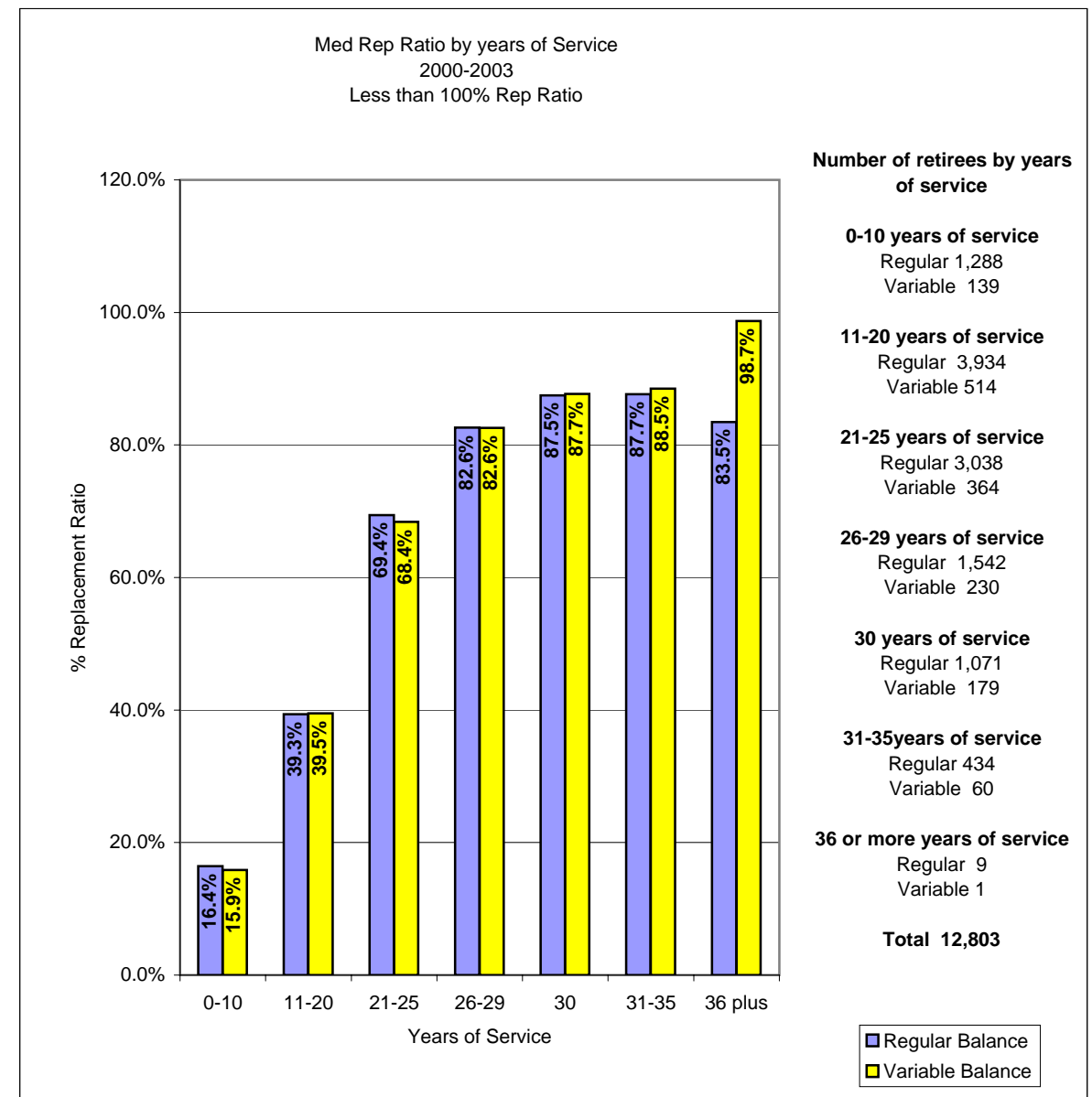
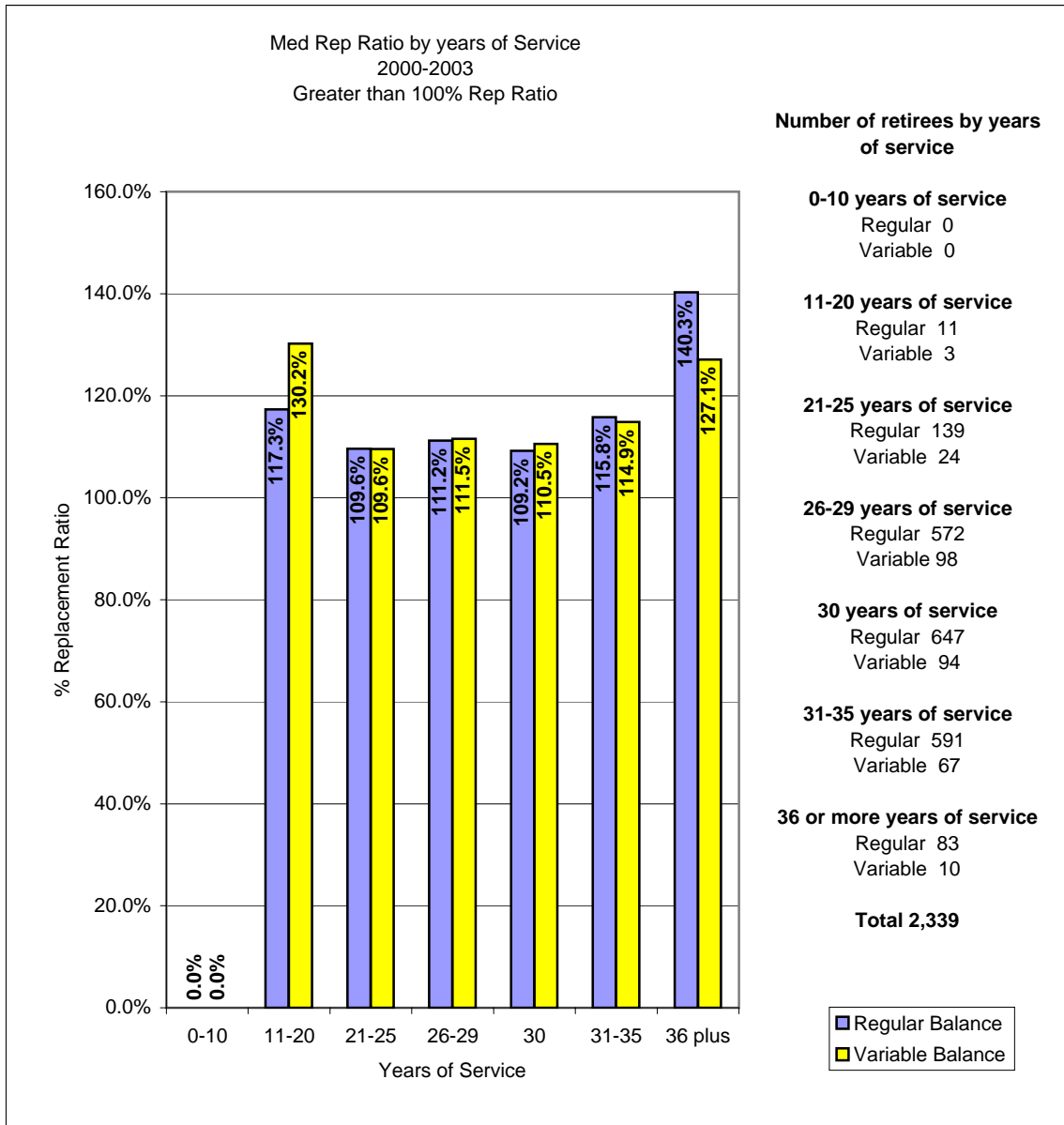
### Median Replacement Ratio by years of Service



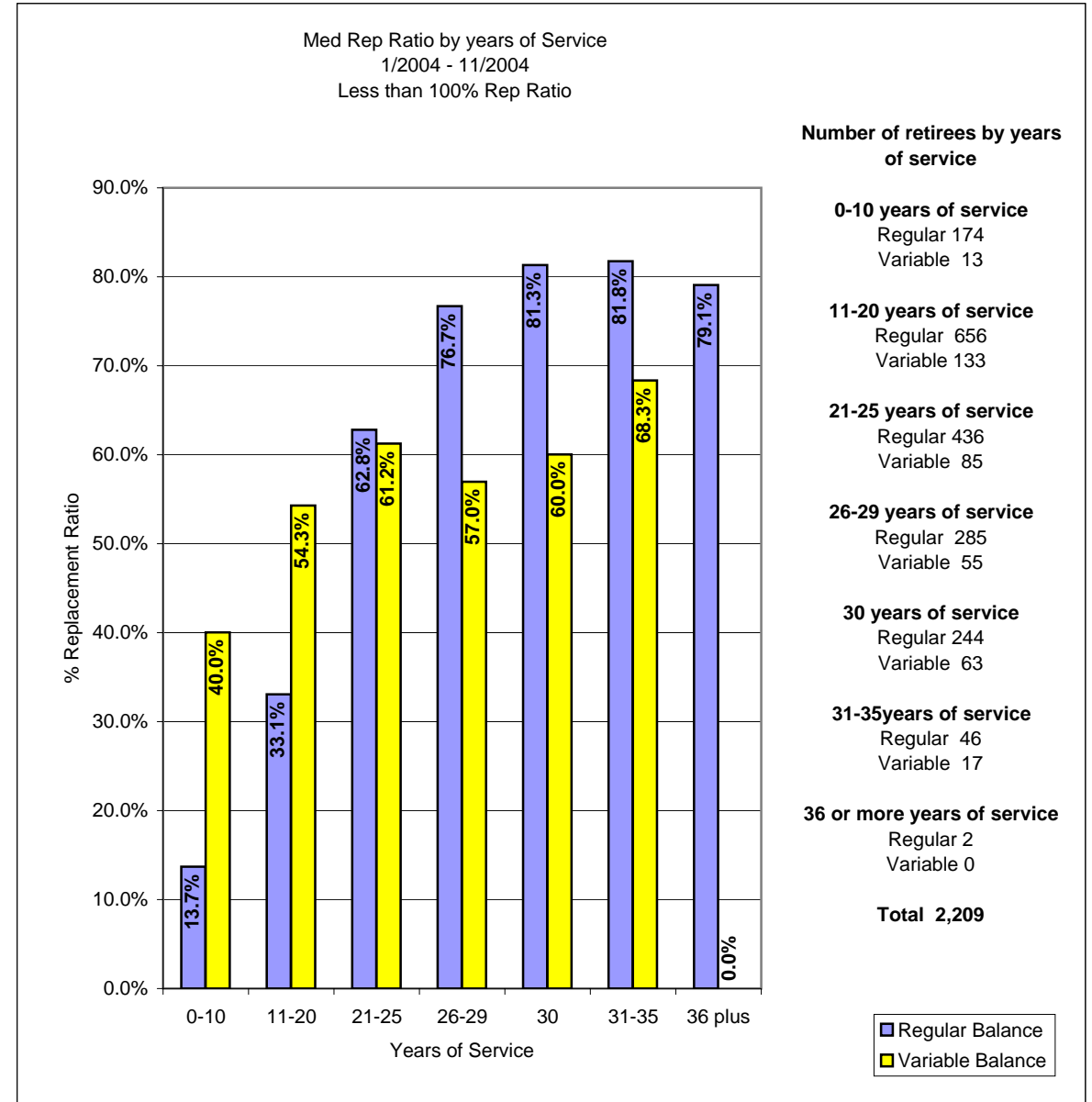
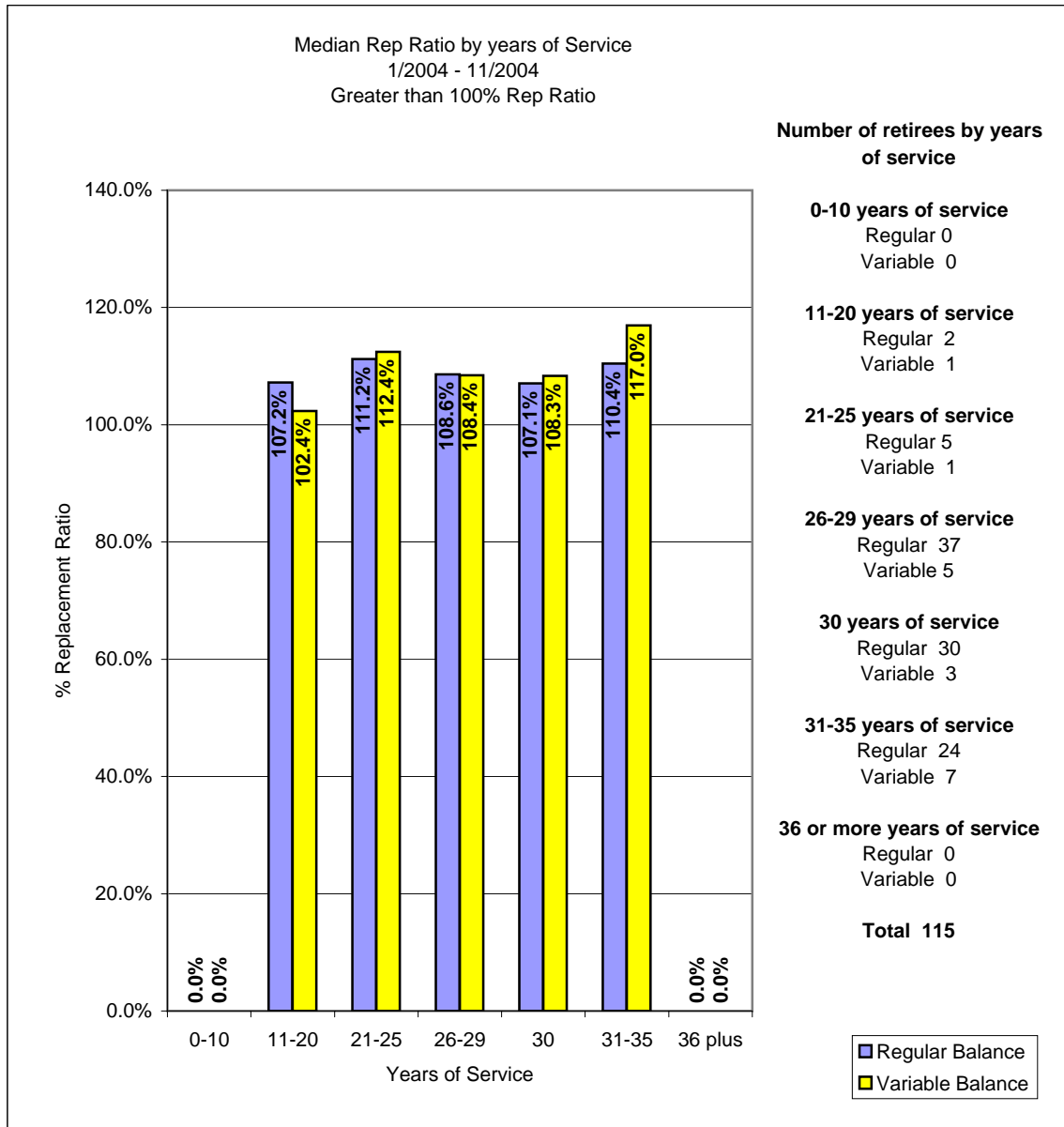
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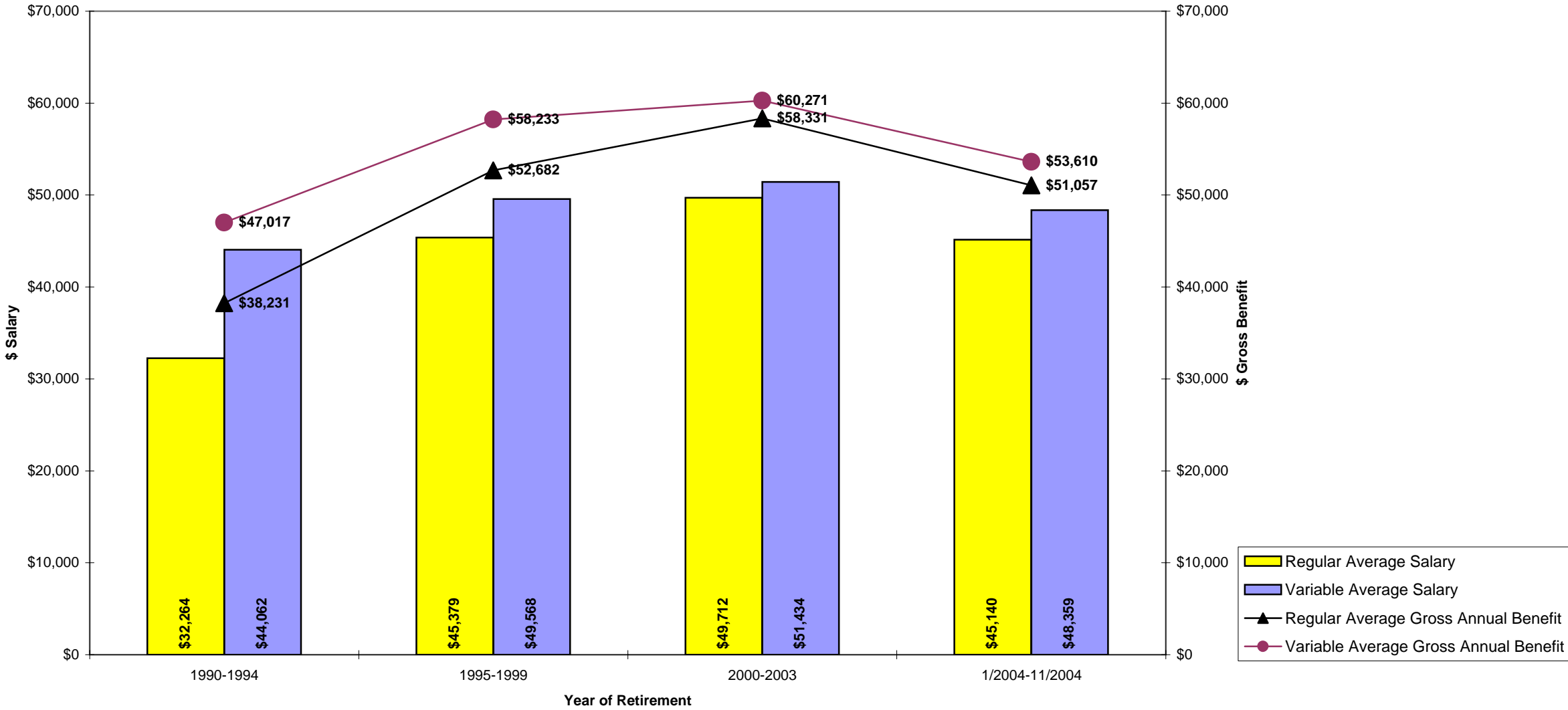
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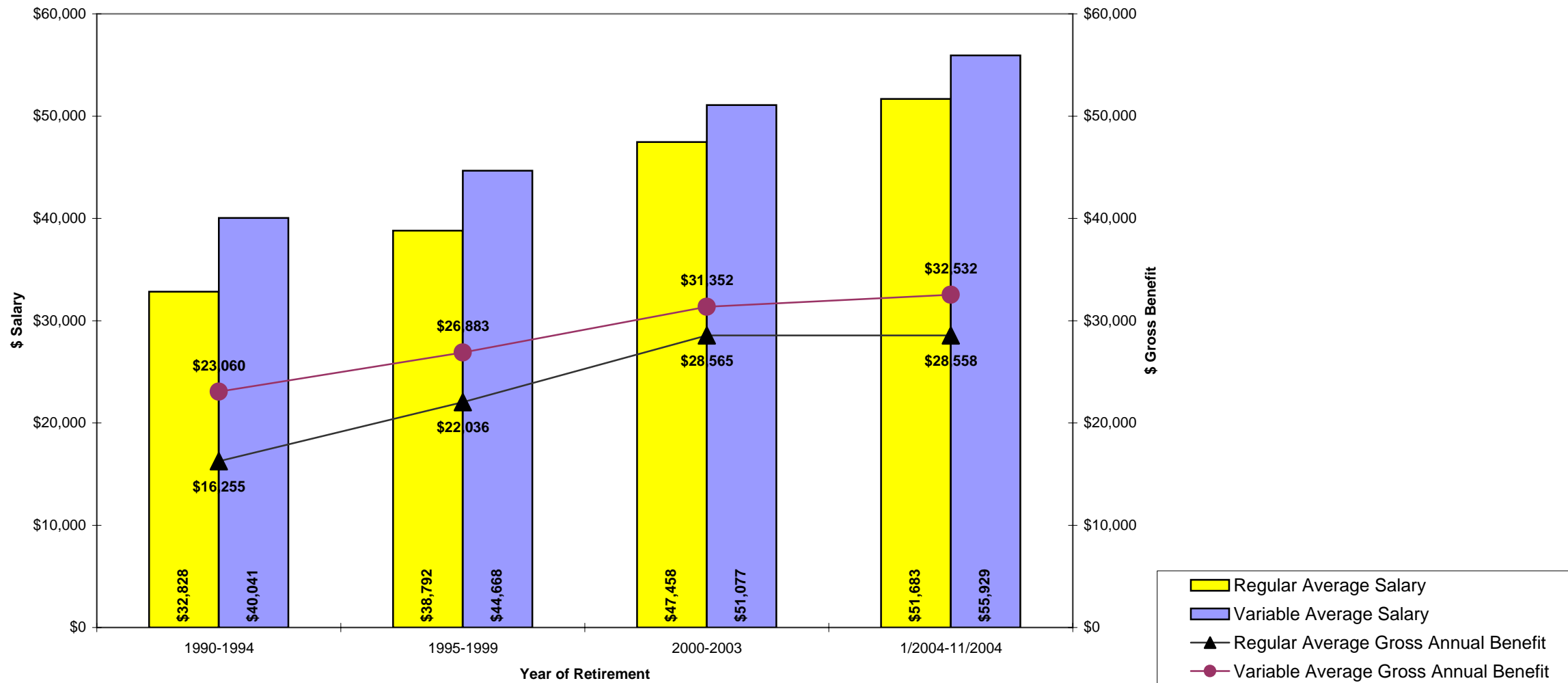
### Median Replacement Ratio by years of Service



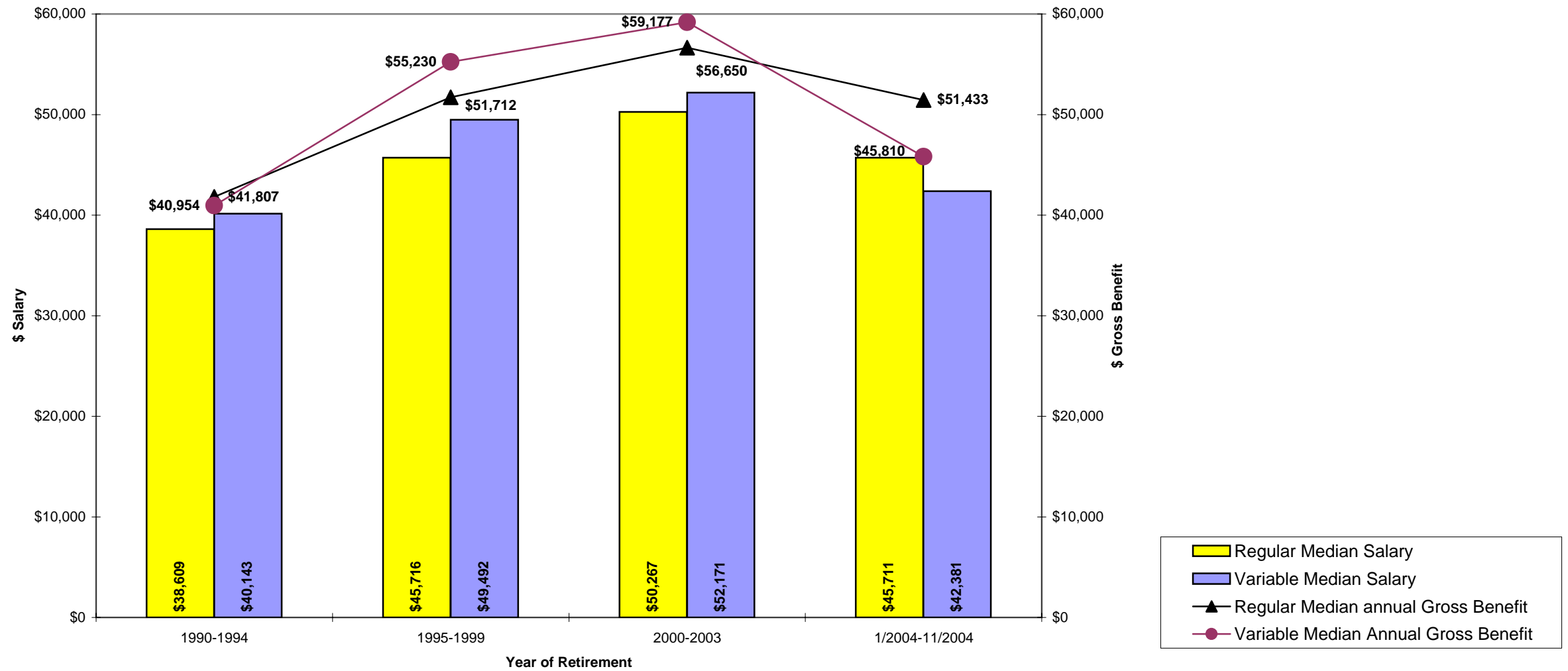
### Average Annual Salary and Gross Benefit Greater than 100% Rep Ratio



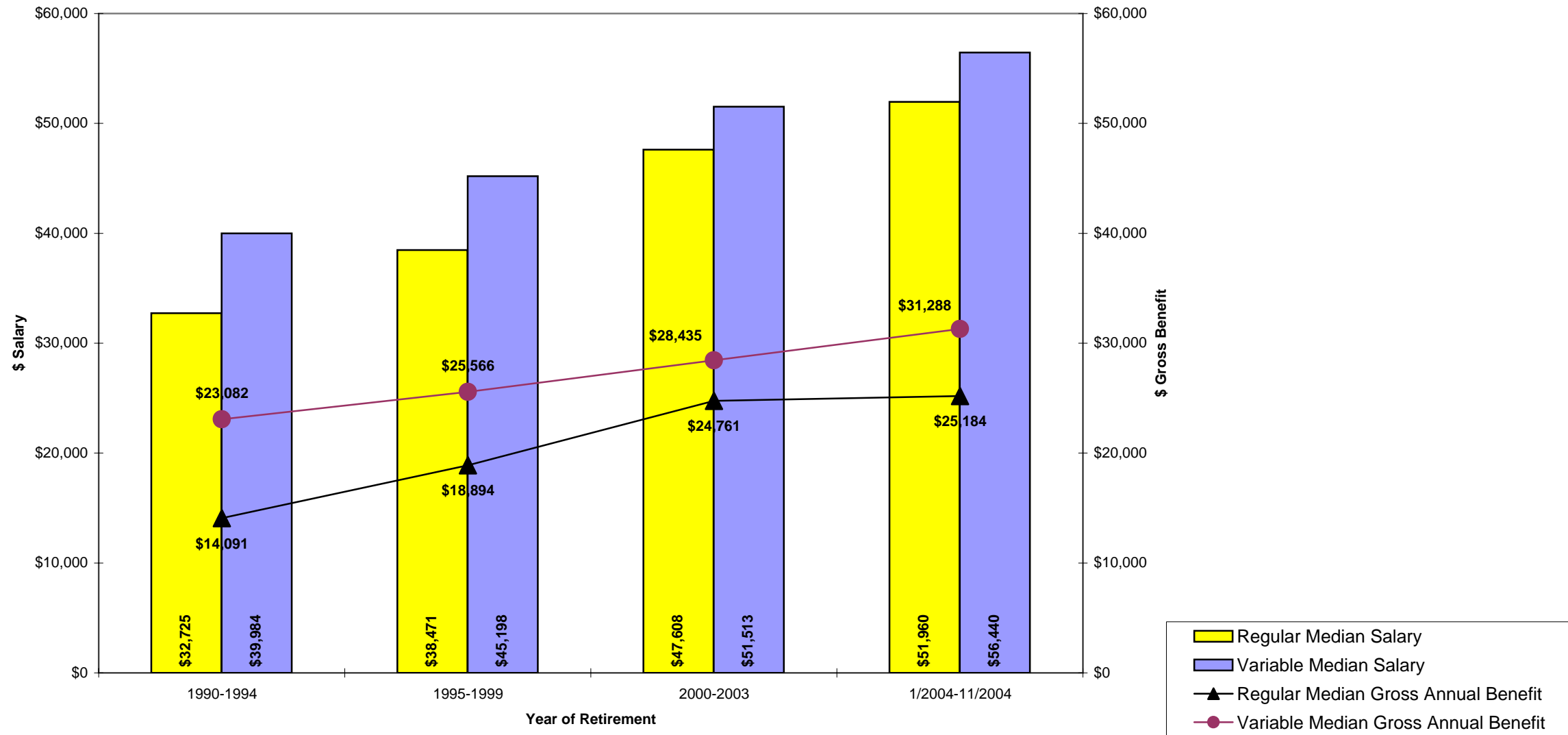
### Average Annual Salary and Gross Benefit Less than 100%



### Median Annual Salary and Gross Benefit Greater than 100% Rep Ratio



### Median Annual Salary and Gross Benefit Less than 100% Rep Ratio



Summary Page  
 30 and 31 Plus Years of Service  
 1990-2004 Combined  
 and  
 2004 Only

	<b># Retirees</b>	<b>Avg Monthly Gross Benefit</b>	<b>Avg Rep Ratio</b>	<b>Avg Annual FAS</b>	<b>% of Population w/30 yrs of Serv</b>	<b>% of Population w/31 plus yrs of Serv</b>
1990-2004	4,831	\$3,585	84.66%	\$50,893	11.48%	
	4,248	\$3,840	90.90%	\$50,225		10.09%
2004 Only	340	\$3,777	79.12%	\$58,080	0.81%	
	96	\$4,454	87.59%	\$61,201		0.23%

Total population for ALL years of service                      42,093  
 (Includes variable and regular accounts)