

**JOINT LEGISLATIVE AUDIT AND REVIEW COMMISSION
OF THE VIRGINIA GENERAL ASSEMBLY**

COMMISSION DRAFT

**Impact of an Aging
State Workforce**

November 14, 2005

In Brief...

Impact of an Aging State Workforce

The 2004 General Assembly directed JLARC to conduct a review of the impact of the aging population on State agency programs. This report is focused on the aging State workforce, how agencies are planning for and coping with anticipated changes in the workforce, and the impact of retirements on the Virginia Retirement System.

Due to an aging workforce, the number of State employees eligible to retire will increase sharply over the next ten years. However, many employees will not likely retire once they are eligible for an unreduced benefit because of factors such as the cost of health care. State agencies appear to be adequately preparing for anticipated retirements through workforce planning, knowledge transfer, and succession planning activities.

As the number of retirees and benefit payments rises, funding for the retirement system will become increasingly important. The aging State workforce will also place increased pressure on the cost of the State's health care plan, but changes in the plan have shifted some costs to employees and helped to contain increasing costs for the State.

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IMPACT OF AN AGING STATE WORKFORCE

Commission Draft

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Joint Legislative Audit and Review Commission

November 14, 2005



JLARC Report Summary: Impact of an Aging State Workforce

House Joint Resolution 103 (2004) directed the Joint Legislative Audit and Review Commission (JLARC) to “study the impact of Virginia’s aging population on the demand for and cost of State agency services, policies, and program management. The study resolution raised specific concern about the aging of the State workforce and with the “concomitantly increasing demands on the financial resources of the Virginia Retirement System and the state and local governments that support it...”

This report addresses the concerns related to the aging State workforce, with a focus on how agencies are planning for and coping with the anticipated changes in their workforces. The report also addresses the impact of retirements on the Virginia Retirement System and State agencies. A separate JLARC report examines the broader issues related to the impact of the State’s aging population on agency services and programs.

The State workforce is aging as indicated by trends in the average age and years of service of employees. Virginia’s State government workforce has more than 100,000 employees in the executive, legislative, and judicial branches, and in its independent agencies. In 1991, the average age of Virginia State employees was 41, but by June 2005, it had increased to 46. In addition, between 1991 and 2005, the percentage of employees with more than 25 years of service has increased from 6.3 to roughly 14 percent. Further, more than 21 percent of employees have 20 or more years of service. As a result, a greater percentage of employees will be eligible to retire in the next five to ten years than in any previous period. However, it does not appear that most State agencies will face a crisis with high rates of turnover due to retirements, because most employees do not retire when first eligible.

Virginia’s Workforce Is Aging and More Employees Are Becoming Eligible to Retire

A large portion of the State’s workforce will be eligible for retirement in the next five to ten years. Based on data from the Virginia Retirement System, about 23 percent of the State’s workforce will be eligible to retire with an unreduced benefit between 2006 and 2010. For the period 2006-2015, about 39 percent of employees will be eligible to retire with an unreduced benefit (see graphic, below). While at first glance these

data may appear troubling, they likely do not provide a completely realistic picture of the retirements that will actually occur over the next ten years.

Percentage of Employees Eligible to Retire in 2006-2010 and 2006-2015

Source: JLARC staff analysis of VRS data.



Note: Data analyzed includes only employees eligible for an unreduced benefit.

Based on retirement data from FY 2005, less than one-fourth of the employees eligible for an unreduced benefit actually retired. As of June 30, 2005, across all agencies about eight percent of employees were eligible to retire with an unreduced benefit and in the same year only two percent of employees retired. The level of retirements over the last 15 years has ranged from 0.9 percent to 4.2 percent. If a similar proportion of the workforce chooses to retire in future years, the percentage of employees likely to retire between 2006 and 2010 would be about 14.4 percent, or one-third less than the number of employees eligible for full retirement. For the period from 2006 to 2015, the estimated level of retirements would be about 29.4 percent of the total workforce. While this data only includes employees eligible for an unreduced benefit, and a large number of employees retire with a reduced benefit. Employees eligible to retire with an unreduced benefit are 2.5 times more likely to retire when eligible than those eligible for a reduced benefit. Yet, those employees eligible to retire with an unreduced benefit are almost 2.5 times more likely to retire when eligible than those eligible for a reduced benefit.

As a worst case scenario, using twice the estimated rate of annual retirements, the average level of expected retirements across all State agencies would be 21.5 percent between 2006 and 2010 and 38.4 percent for 2006 to 2015. Applying this higher than average rate of retirement, the number of expected retirements approaches the percentage of employees eligible for full retirement over the next ten years (38.7 per-

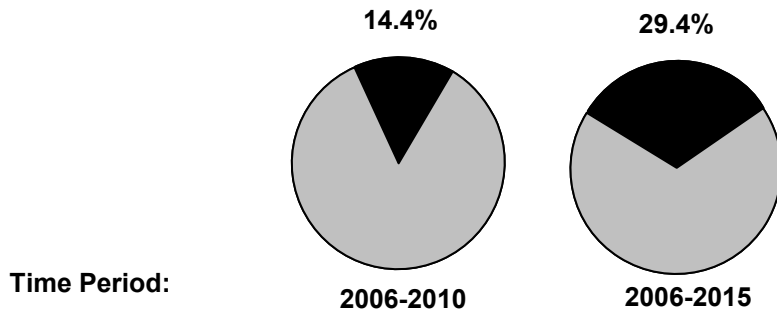
The expected future levels of retirements based on current retirement rates or even doubling the current rate suggest that fewer retirements are imminent than employees' eligibility to retire alone suggests.

cent). However, barring the provision of an early retirement incentive program, a doubling of the current rate of retirements may be unlikely. Instead, a modest increase over the next ten years in the annual rate of retirement from about two percent to about three percent will likely occur.

Interviews with State agency representatives and the results from a survey of State employees within five years of retirement further support the notion that many employees do not retire once they are eligible for full retirement benefits. Of the respondents to the JLARC survey of employees who are within five years of eligibility for an unreduced benefit, 74 percent indicated that they plan to continue working in State government after becoming eligible to retire. The cost of health care appears to be a primary reason. Agency staff reported that employees delay retirement for a variety of reasons, but frequently cited the cost of health care and health insurance as primary reasons, respondents to the JLARC employee survey confirmed this.

Predicted Level of Retirements, in 2006 – 2010 and 2006 – 2015

Source: JLARC staff analysis of VRS data.



Note: Data analyzed includes only employees eligible for an unreduced benefit.

Future Retirements Raise Concerns for Some Agencies

Employees who were eligible to retire in the years up to and including FY 2005, but who chose not to do so, have created the potential for a large number of employees to retire at once at some future time. This uncertainty will likely present challenges to State agencies as they plan for and manage their workforces. However, at least in some cases, agencies have taken a careful look at their workforces, evaluated patterns of retirement, and determined that pending retirements will generally not be an issue in the near term.

Large agencies with significant numbers of employees who are eligible to retire potentially may pose a greater threat to the Commonwealth's workforce than smaller agencies with large percentages of employees eligible to retire simply because of

the difficulty of replacing many employees at once. Staff at DHRM noted that smaller agencies also face substantial challenges related to retirements, because of the lack of available personnel in the agency to replace or to assume the responsibilities of retiring employees. Staff at the larger agencies, however, indicated that they are not anticipating an overwhelming number of future retirements for a variety of reasons

JLARC staff found that while some of the agencies are not overly concerned about potential retirements over the next ten years, some other agencies face potential retirements that could be difficult to manage. However, most of these agencies appear to have generally recognized the potential problem. Based on staff interviews and a review of their workforce plans, many agencies have taken steps to mitigate the potential loss of employees in critical positions.

While the overall rate of retirements may not be a major concern, the potential for retirements in particular positions might adversely impact agency operations. These positions include Security Managers, Nurse Managers, Probation Managers, General Administrative Managers, and management positions at VDOT. Many of the positions with high numbers of employees eligible to retire are management and supervisory positions. It is not surprising that agency management and supervisory positions generally have a higher proportion of employees eligible to retire, since these positions would typically be filled with employees with more experience and years of service. While the potential of many impending retirements in these positions certainly presents challenges, State agencies appear to be aware of and taking steps to address the issue.

JLARC staff also reviewed the impact of future retirements on higher education institutions and found that patterns of retirements are similar to the Statewide averages for classified employees (approximately two percent of employees retired in FY 2005). Staff at many colleges and universities indicated that faculty did not retire once eligible for an unreduced benefit. However, classified employees at the colleges and universities were more likely to retire once they reached eligibility for an unreduced benefit.

Based on interviews with staff from a sample of higher education institutions, State universities and four-year colleges generally appear to view faculty retirements as an opportunity to reshape their workforces rather than a liability. They also noted that they often have sufficient notice to recruit replacements for faculty. However, staff at four-year colleges and universities expressed concern that starting salaries for replacement faculty may exceed the salary of the retiring faculty

member. In contrast to the four-year institutions, community colleges are more concerned about retirements, especially the possibility that many retirements will occur simultaneously, because many employees were hired when the community college system was first established in the in the late 1960s. Further, community colleges often indicated that they had problems recruiting new faculty, especially if the college is located in an economically depressed area.

Agencies are Preparing for Retirements through Workforce Planning, Knowledge Transfer, and Succession Planning Activities

By incorporating workforce planning into the budget and strategic planning process, higher level decision-makers within agencies will likely become more informed about and engaged in the human capital issues facing their agencies.

Beginning in 1998, the Department of Human Resource Management (DHRM) recognized the potential problems associated with being unprepared for the increasing numbers of State employee retirements that could result from an aging of the workforce. Accordingly, in 2004 DHRM initiated a more formalized program of workforce planning in State agencies. The resulting workforce plans, and various tools provided by DHRM, have helped reduce the risk for State agencies of unmanageable turnover resulting from retirements. In addition, the recent requirement that agencies submit strategic plans which include a section on human capital needs, should prompt some agencies to take a more in-depth approach to the evaluation of workforce issues and strategies. By incorporating workforce planning into the strategic planning and budget process, the Commonwealth has improved upon its initial workforce planning efforts, and allowed higher level decision-makers within agencies to become more informed about and engaged in the human capital issues facing their agencies.

Agencies that indicated in their workforce plans that they were concerned about retirements typically were concerned with the loss of a few senior managers, rather than with retirements among the agency as a whole or with the rank and file employees. The key positions that agencies identified in their workforce plans as vulnerable to retirements were similar to those identified by agencies that responded to the JLARC survey. About half of the agencies which had concerns about retirements reported transfer of knowledge from retiring employees to other staff is a concern. However, the majority of agencies that mentioned the transfer of institutional knowledge as a concern also mentioned strategies for addressing this need.

To address future human capital needs, agencies indicated on the JLARC survey of State agencies that knowledge transfer and succession planning activities are a high or a very high priority. With respect to knowledge transfer, agencies engage in activities such as cross-training, documenting of proce-

dures, mentoring, and double-filling of positions. In response to the JLARC survey, many agencies linked knowledge transfer and succession planning activities, but some agencies noted that they lacked the resources required to engage in meaningful succession planning activities. For example, many agencies indicated that it was important to hire employees with the knowledge, skills, and abilities (KSAs) for positions, rather than training someone to fill the position, because the agency's staff would not be able to devote the time necessary for mentoring or training. In addition, some agencies indicated that they faced other resource constraints, such as being strained by vacant positions and reductions in staffing while facing an increasing workload. Further, about half of the agencies indicated in their workforce plans that training is a concern. Supervisory and management skills were frequently mentioned, as well as computer skills. DHRM has recognized the need for management and supervisory skills training and plans to offer courses at no cost to the agencies to address the expressed needs.

In addition to knowledge transfer and succession planning activities, agencies have a variety of other tools available to them for addressing human capital needs. For example, on the JLARC survey of State agencies, 83 percent of agencies agreed or strongly agreed with the statement that compensation reform has given the agency the tools it needs to address recruiting issues. Similarly, 75 percent of agencies agreed with the statement that that compensation reform has given the agency the tools it needs to address retention issues. In addition, to remain competitive in the marketplace, agencies reported using a variety of other strategies, including offering flexible schedules, addressing work-life balance issues, creating internships, using targeted recruiting, increasing training, and providing educational assistance. A study by the Government Performance Project stated that the Commonwealth's efforts in workforce planning are comparable to or exceed those of most other states. Accordingly, the Commonwealth may want to consider increasing and refining the use of its previously developed tools and employing strategies already at its disposal to keep experienced or veteran employees on the job longer and to encourage a new cohort of employees to enter into State service.

The State's Defined Benefit Plan Will Continue to Experience Growth in the Number of Retirees and Increases in Benefit Payments

As the workforce ages and the number of retirees increases, the costs associated with many employee benefit plans will similarly increase. As a defined benefit plan, the Virginia Retirement System (VRS) will be faced with meeting the pension obligations of a growing number of retirees. The structure of

the defined benefit plan, which is based on a formula which includes years of service, age, and average final compensation, encourages employees to remain employed with the Commonwealth, particularly as employees enter the latter part of their careers. As an employer, the Commonwealth has generally benefited from this structure by being able to maintain many skilled employees and their associated knowledge over time. However, as a mature system, VRS is now paying out more in benefits than it receives in contributions, with the difference being made up by investment income. Due to the demographics of the State's workforce, VRS' current funded status, as well as the implementation of new accounting rules, pre-funding of benefits will become increasingly important to ensure the financial health of the State's defined benefit plan and other post-employment benefits.

Over the past decade, there has been considerable growth in the number of VRS active members, retirees, and beneficiaries. In 1995, there were 78,052 retirees. As of June 30, 2005, the number of VRS retirees and beneficiaries had grown to approximately 119,360. In 1995 there were 262,297 active employees across all of the State and local government agencies and school boards served by VRS. By 2005, there were 325,025 active employees.

Largely due to the increase in the number of retirees, benefit payments to retirees have been increasing. VRS dispersed \$761 million in benefits in FY 1995, and by FY 2004 the VRS dispersed \$1.76 billion in benefits, or an increase of 131 percent. In addition, VRS projects that by FY 2020 approximately 8,200 employees will retire each year up from 5,643 in FY 2005 or an increase of 46 percent. The average annual growth in benefit payments across this time period was 9.8 percent. From FY 1995 to FY 2004, contributions to the system increased from \$900.3 million to \$1.2 billion.

Recently, VRS' funded status for each of the VRS retirement systems has declined. Based on the June 30, 2005 actuarial valuation, none of the systems was fully funded. The recent effects of asset losses have been compounded by recent plan assumption changes, but more importantly by ongoing underfunding of necessary employer contributions. VRS estimates that since FY 1992, the actuarially calculated rates for the State and teacher groups were under-funded by approximately \$1.1 billion. JLARC staff estimates an additional shortfall of \$242 million for the VaLORS, SPORS, and JRS groups for the period. As pressures on the system increase, funding the actuarially calculated contribution rates will become increasingly more critical.

One important measure of pension plan funding is whether the plan is on a schedule that is reasonably intended to reach the goal of 100 percent funding of liabilities. From FY 1992 to FY 2005, the actuarially calculated rates for the State employee and teacher groups were fully funded only twice. The VRS director noted that as long as the certified rates are funded, he does not foresee the increase in retirements adversely impacting the health of the system. However, he also noted that if the actuarially calculated rates are not funded, over time it will become increasingly difficult for the Commonwealth to address system funding obligations.

Health Care Costs Are a Particular Concern for Employees and Retirees

Health care is a key element of the State's benefits package, and has been cited by agencies as an important recruitment and retention tool. In addition, costs associated with health care coverage were noted by agencies as one of the primary issues facing its aging workforce. Health care costs nationally, and in Virginia, continue to rise at rates that far outpace inflation. Not surprisingly, health insurance program costs continue to rise. As the Commonwealth's workforce ages and as age is a driver in the cost of health care, costs associated with the State's health benefits plan will likely continue to increase.

As a self-insured health care plan, the State contracts with Anthem as its third party administrator. Due largely to its aging workforce, the Commonwealth's average medical cost per member remains higher than comparable costs for other Anthem plans. For example, members 44 years of age or younger constitute 58 percent of the COVA Care Plan's total membership, but they represent only 35 percent of claims in FY 2004. In contrast, members 45 and older constitute 42 percent of total membership, but account for 65 percent of claims. In addition to the effects of aging on plan costs, lifestyle-related disorders for the entire plan population account for a high percentage of claim costs.

A recent restructuring of the State's plan resulted in cost containment and cost shifting. The implementation of COVA Care curtailed growth in plan expenses mainly through the use of its three-tiered drug program. In addition to its cost-shifting component, the three-tiered plan also encouraged greater use of generics. While the plan has shifted some costs to employees, the Commonwealth continues to pay approximately 80 percent of the cost of health care. As a result of the implementation of Medicare Part D, costs for the State's Medicare-coordinating plans will likely decrease. However, Medicare Part D is a complicated program, which will require DHRM and VRS to provide on-going outreach and communication to members.

According to staff at DHRM and VRS, the most important issue for employees as they near retirement age is health care, particularly the cost of retiree health care. Retirees pay the full cost of health care premiums without an employer share. In the JLARC survey of State employees who were within five years of being eligible for an unreduced benefit, employees indicated that the cost of health care was the factor that had the most influence on their decision on when to retire. Of those surveyed, 71 percent rated the cost of health care as having a strong or very strong influence on their decision to retire (with 56 percent rating it as very strong). Finances ranked second among factors influencing their decision to retire. As shown in the table below, the average retiree receives a gross monthly benefit of \$1,365. After applying the average health insurance credit and taking other deductions including the retiree health care premium for single coverage, the average retiree will net approximately \$1,049 per month.

Illustration of Average FY 2005 Retiree Benefit and Applicable Deductions

Source: JLARC staff analysis of VRS and DHRM data.

Average Gross Monthly Service Benefit for State Retiree	\$1,365
State Tax	(\$45)
Federal Tax*	\$0
Average Health Insurance Credit (if > 0)	\$105
Single Coverage Monthly Health Care Premium	(\$376)
Balance after deductions and credits:	\$1049

*Federal taxing is based on default taxing tables.

New Accounting Standards will Impact How the State Reports Liabilities Associated with Non-Pension, Post-employment Benefits (OPEB)

Beginning in the fiscal years ending 2007 and 2008, the Commonwealth will be required to report additional information about its non-pension, post-employment benefits. The implementation of Governmental Accounting Standards Board Statements No. 43 and 45 (GASB 43 and GASB 45) will require government entities to reflect on their financial statements the long-term cost of post-employment benefits. The main thrust of the new rules will require employers to recognize the costs of post-employment benefits when they are being earned rather than when they are being paid. Previously, many governmental employers took a pay-you-go-approach to funding such benefit costs. Now, under GASB 43 and 45, these benefits will need to be pre-funded and amortized over a period of years -- just like pension benefits -- or the Commonwealth will have to report a liability in the Commonwealth's Annual Financial Report (CAFR).

In order to determine the financial impact of the GASB standards on its early retiree health care program, DHRM conducted a preliminary actuarial analysis. Using a unit cost method with a 30-year level dollar amortization of the unfunded liability, the actuarial accrued liability (AAL) of the State's early retiree health care program would be \$846 million. The associated FY 2006 annual required contribution would be \$83 million.



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General Trends in State Workforce Retirements

In Summary...

The Virginia State government workforce is aging, just as the general population is aging. The average age of a State employee in 1991 was 41, but by 2005 the average age had increased to 46. This increase in the average employee age raises concerns about impacts on agency operations, especially with regard to increasing rates of retirement. Based on prior rates of actual retirements compared to eligibility, it does not appear that most State agencies will face a crisis with high rates of turnover due to retirements. Most employees do not retire when first eligible due to a number of factors, including the high cost of health care. However, some agencies do have unusually large numbers of employees who will be eligible for retirement over the next ten years, and filling certain management positions in some agencies could be problematic. These agencies will need to examine the demographics of their workforces and plan for changes accordingly.

House Joint Resolution 103 (2004) directed the Joint Legislative Audit and Review Commission (JLARC) to “study the impact of Virginia’s aging population on the demand for and cost of State agency services, policies, and program management (Appendix A). The study resolution raised specific concern about the aging of the State workforce and with “concomitantly increasing demands on the financial resources of the Virginia Retirement System and the state and local governments that support it....”

This report addresses the concerns related to the aging State workforce, with a focus on how agencies are planning for and coping with the anticipated changes in their workforces. The report also addresses the impact of retirements on the Virginia Retirement System and State agencies. A separate JLARC report examines the broader issues related to the impact of the State’s aging population on State agency services and programs.

To address the State workforce concerns in HJR 103, JLARC staff interviewed State agency personnel; surveyed State agencies, employees, and retirees; reviewed agency workforce plans and other documents; and analyzed ten years of retirement and four years of detailed turnover data provided by the Virginia Retirement System (VRS) and the Department of Human Resource Management (DHRM). The analysis of retirement data included information on those employees eligible

to retire with an unreduced benefit between 2005 and 2015, as of June 30, 2005. Employees eligible to retire with an unreduced benefit are those who are 65 years of age with at least five years of service credit or employees who have reached 50 years of age and have at least 30 years of service credit. The analysis examined trends at the agency level as well as for specific positions in the workforce.

All of the analysis for this report focused on classified employees in the executive branch of State government, but also included several independent agencies. Classified employees are employees who are assigned to positions within the occupational families listed in the Commonwealth's Compensation Plan. These employees are covered by the provisions of the Virginia Personnel Act (§ 2.2-2900 of the *Code of Virginia*). Analysis of retirement trends at the institutions of higher education is separate from the analyses of other agencies. Unless specifically noted, higher education institutions have not been included in the analyses describing State agency trends.

An Overview of the State Government Workforce

Virginia State government has more than 100,000 employees in the executive, legislative, and judicial branches, and in its independent agencies. The Commonwealth's workforce is extremely diverse in terms of education and skills, with about a third having a bachelor's degree or higher. The average classified employee salary is approximately \$36,945.

The average age of State employees is currently 46 years, and more than 21 percent of employees have 20 or more years of service. On the other hand, about 35 percent have five or fewer years of service with the Commonwealth and more than 55 percent have fewer than 10 years of service. On average, employees have 11.5 years of service. Most employees who will be newly eligible to retire with an unreduced benefit in the next ten years are between the ages of 55 and 64 years of age (68.2 percent). Less than ten percent will be newly eligible to retire at age 65 or older.

The Aging of Virginia's Workforce

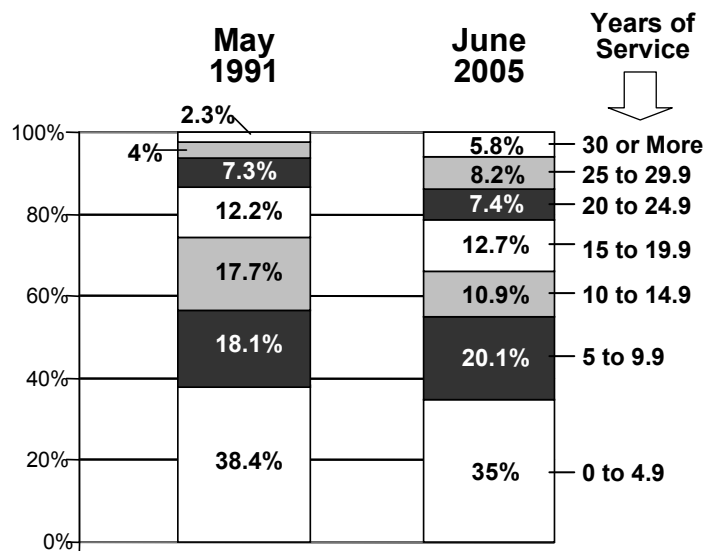
According to U.S. Bureau of Labor Statistics (BLS), future growth in the labor force will be affected by the aging of the so-called "baby boom" generation, or persons born between 1946 and 1964. In 2012, baby boomers will be 48 to 66 years old. BLS projected that the number of workers in this age group would be expected to increase significantly over the 2002-2012 decade. As the labor force continues to age, the number of workers in the 55-and-older group is projected by BLS to

grow by 49 percent, four times the 12-percent growth projected for the overall labor force. BLS projected that from 2002 to 2012, the proportion of the 55-and-older age group in the workforce will increase from 14 percent to 19 percent. Much like the general labor force, state government workforces throughout the country are aging. Nationally, according to a report from the Council of State Governments and the National Association of State Personnel Executives, the average age of state employees in 2001 was 45. In addition, the report noted that an average of 21 percent of the state government workforce could retire in 2002 and warned that state governments could lose 30 percent of their workforces through retirements by 2006 (includes early retirements).

While Virginia has not experienced a recent exodus of State employees and one is not anticipated in the next year, data from DHRM confirm that the State workforce is aging. In 1991, the average age of Virginia State employees was 41, but by June 2005, it had increased to 46. In addition, between 1991 and 2005, the percentage of employees with more than 25 years of service has increased from 6.3 to roughly 14 percent (Figure 1). As a result, a greater percentage of employees will be eligible to retire in the next five to ten years than in any previous period.

Figure 1
Statewide Years of Service for 1991 and 2005
(Classified Employees Only)

Source: JLARC staff analysis of VRS data.



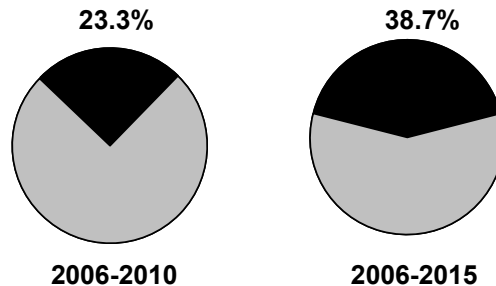
Most Employees Are Unlikely to Retire Upon Becoming Eligible

The percentage of employees eligible to retire within the next decade is often cited as a reason to be concerned about a mass exodus of employees. The media have devoted significant attention to the looming crisis expected as a result of pending “baby boomer” retirements. For government agencies, whose employees are typically older than their counterparts in the private sector, the potential for retirements may seem more problematic. However, based on an analysis of Virginia's workforce, it is unlikely that there will be a mass exodus of employees in the next decade. For a complete description of the analysis methodology, refer to Appendix B.

While the proportion of State employees eligible to retire over the next ten years may appear troubling, these data do not present a realistic picture of the retirements which will likely occur over the next ten years.

A Large Portion of the Workforce Will Be Eligible for Retirement in the Next Ten Years. On average, based on VRS data, about 23.3 percent of the State workforce is eligible to retire between 2006 and 2010 with an unreduced benefit. At one institution within the Department of Corrections, the Eastern Region Correctional Field Unit, almost 44.8 percent of its workforce is eligible to retire between 2006 and 2010, and 81.3 percent is eligible by 2015. Similarly, for the period 2006-2015, about 38.7 percent of employees are eligible to retire. While the proportion of State employees eligible to retire over the next ten years may appear troubling (Figure 2), these data do not present a realistic picture of the retirements which will likely occur over the next ten years.

**Figure 2
Percentage of Employees Eligible to Retire in
2006-2010 and 2006-2015**



Note: Data analyzed includes only employees eligible for an unreduced benefit.

Based on retirement levels for 2005, less than one-fourth of those eligible for an unreduced benefit actually retire.

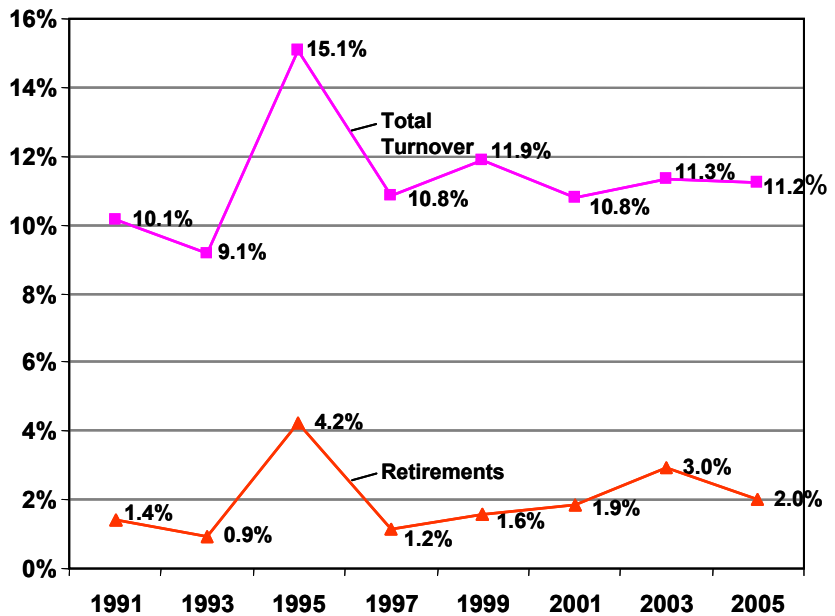
Less Than One-Fourth of the Employees Eligible for an Unreduced Benefit Actually Retire Annually. Based on retirement levels in FY 2005, less than one-fourth of those eligible for full retirement actually retire. Across all agencies, ap-

proximately eight percent of employees were eligible to retire with an unreduced benefit as of June 30, 2005, and in FY 2005, two percent of the workforce actually retired. If all of the retirees in 2005 retired with a full benefit, then it would be possible to conclude that an estimated one fourth of those eligible to retire with a full benefit actually retired in 2005. However, some employees retired in 2005 with a reduced benefit, so less than one-fourth of the employees eligible for an unreduced benefit retired.

The two percent level of retirements for 2005 is generally consistent with the level of retirements over the past 15 years. As shown in Figure 3, turnover due to retirements was generally well below three percent of the workforce and was only a small portion of the general turnover rate, which remained about 12 percent over the prior 15 years. In 1995, the one year the retirement rate exceeded four percent, the retirements were due to an incentive program specifically designed to reduce the size of the State workforce.

Figure 3
Percentage of the Classified State Workforce Retiring, 1991 to 2005

Source: Figure and data provided by DHRM.

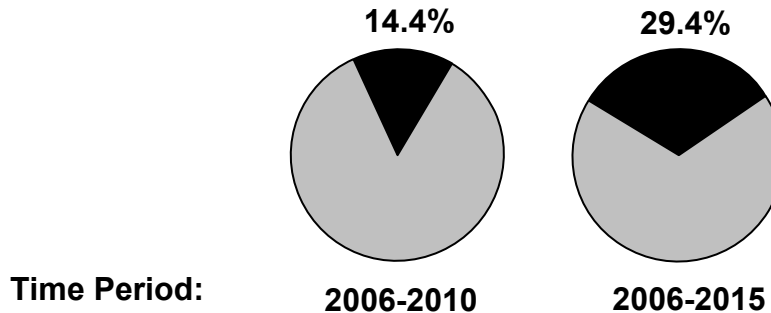


The Aging Workforce May Result in a Modest Increase in the Rates of Retirement. If a similar proportion of the workforce, among those who are eligible to retire with an unreduced benefit, chooses to retire in future years, then the percentage of employees likely to retire between 2006 and 2010 would be about 14.4 percent. This is slightly more than half

the number of employees eligible for full retirement (23.3 percent) in this period. In addition, the highest predicted level of retirements for any single institution with at least 30 employees is 28 percent or less.

For the time period 2006-2015, again assuming that one fourth of employees eligible for full retirement in a given year will actually retire, the estimated level of retirements will be about 29.4 percent of the total workforce reviewed (Figure 4). Again, this is fewer retirements than is suggested by the percentage of employees eligible for full retirement over the next ten years (38.7 percent). In addition, a loss of 29.4 percent of the workforce over ten years due to retirements is an average of slightly more than three percent a year, which is at the high end of the range of the State's annual retirement levels for the past 15 years. This higher rate suggests that the aging of the State workforce may contribute to higher rates of retirement over time. In fact, a three percent annual retirement rate is about 50 percent higher than the average rate over the past 15 years.

**Figure 4
Predicted Level of Retirements,
Assuming Current Retirement Rate**



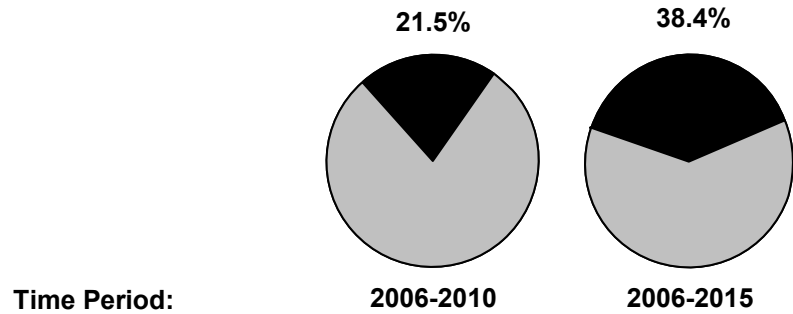
Note: Data analyzed includes only employees eligible for an unreduced benefit.

If half of the employees eligible for full retirement in a given year retire, twice the estimated current rate, then the retirement rate would approach the highest level in the past 15 years (4.2 percent). In addition, the average level of projected retirements across all State agencies reviewed would be 21.5 percent between 2006 and 2010 (Figure 5). For 2006-2015 the level of projected retirements would be 38.4 percent. These projected percentages of actual retirements over the next five and the next ten years almost approach the percentage of employees eligible in each period. However, a doubling of the retirement rates may be unlikely.

Additional information collected through interviews with agency representatives and the results of the JLARC survey of State employees within five years of retirement further supports the notion that many employees do not plan to retire once they are eligible for full retirement. Of employees who responded to the JLARC survey, 74 percent indicated that they plan to continue working in State government after becoming eligible for full retirement. Agency staff reported that employees delay retirement for a variety of reasons, but frequently cited the cost of health insurance as a primary reason that employees delay retirement. In addition, among employees who responded to the JLARC survey, 71 percent indicated that the cost of health care had a strong influence on their retirement plans. With health care costs rising steadily, many employees may choose to work well beyond their initial eligibility for retirement.

**Figure 5
Predicted Level of Retirements
Assuming Current Retirement Rate Doubles**

Source: JLARC staff analysis of VRS data.



Note: Data analyzed includes only employees eligible for an unreduced benefit.

The expected future levels of retirement based on the current rate of retirements, suggest that fewer retirements are imminent than employees' eligibility to retire suggests.

The expected future levels of retirements, based on the estimated current rate of retirements, suggests that fewer retirements are imminent than employees' eligibility to retire suggests. However, the aging of the workforce appears to have some impact on the rates of retirement, with the average over the next ten years approaching the highest rate seen in the last 15 years. Additional factors, such as the build up of a cohort of employees who delay retirement and the number of employees eligible in future years could also impact the future rate of retirements.

The Large Cohort of Employees Eligible for Retirement in 2005 Creates Uncertainty Regarding Future Retirements

The large cohort of employees who are eligible for full retirement, currently and who have chosen not to retire, creates the potential for a large number of employees to retire within a short time period in the future.

Among all State agencies reviewed, on average about 300 percent more employees were eligible to retire with full benefits at the end of FY 2005 than the expected number of employees newly eligible to retire in each of the next four years (Table 1). The large cohort of employees who are eligible for full retirement, who have chosen not to retire, creates the potential for a large number of employees to retire within a short time period in the future. However, at least in some cases, agencies have taken a careful look at their workforces, evaluated patterns of retirement, and determined that pending retirements will not be an issue in the near term. For example, the Department of Health (VDH) noted that the average age of retirement for its employees is 62, the minimum age for Social Security, and the average years of service at retirement is 24 years. Based on the demographic data of those currently eligible to retire, VDH noted that less than two percent of its employees currently met both the average years of service and age at retirement criteria.

As with VDH, the Department of State Police is aware of the historical trends with regard to the age and years of service for its workforce, and has also concluded that future retirements will not pose a problem. As indicated by data provided by the agency, the Department of State Police's workforce composition was the same ten to 15 years ago in terms of the average age of sworn employees. On average, these employees are 39 years old. In addition, the average years of service of sworn employees has actually decreased over the past four years. This trend is attributable to the agency's paramilitary structure. Sworn officers move up through the ranks each year, and new recruits from the State Police academy replenish the bottom ranks. To the extent that other agencies are able, it will be helpful in managing future retirements for them to identify retirement trends within their workforces, as the VDH and State Police have done. State agencies currently have access to demographic information on their workforces through DHRM's web-based workforce planning tools. The extent to which agencies have used this information to identify human capital needs will be discussed further in Chapter 2.

Large Agencies with Large Numbers of Employees Eligible to Retire Appear Prepared for Anticipated Retirements

Large agencies with large percentages of employees who are eligible to retire potentially may pose a greater threat to the Commonwealth's workforce than smaller agencies with large percentages of employees eligible to retire because it is diffi

Table 1
Agencies with the Largest Percentage of Employees Eligible for Retirement in 2005

Source: JLARC staff analysis of DHRM and VRS data.

Agency Name	Number of Employees in 2005	Percent * Eligible in 2005	Percent Newly Eligible by Year				
			2006	2007	2008	2009	2010
Department of Alcoholic Beverage Control	939	9.3%	4.3%	2.9%	3.7%	3.7%	4.0%
Division of Community Corrections	1,304	9.4%	3.8%	2.8%	3.3%	3.6%	2.8%
Department of General Services	594	9.8%	3.2%	2.4%	3.0%	3.4%	4.2%
Virginia Community College System	128	10.2%	3.1%	3.1%	0.8%	2.3%	1.6%
Department of Environmental Quality	794	10.3%	2.3%	2.5%	1.3%	2.3%	2.1%
Marine Resources Commission	139	11.5%	4.3%	2.9%	3.6%	2.2%	5.0%
Department of State Police	2,510	11.8%	3.7%	2.7%	2.9%	2.9%	2.3%
Department of Mines, Minerals & Energy	227	11.9%	4.0%	2.2%	4.4%	7.9%	5.7%
Department of Motor Vehicles	1,866	12.3%	3.1%	3.2%	3.2%	3.7%	3.4%
Department of Planning and Budget	56	12.5%	1.8%	3.6%	5.4%	0.0%	0.0%
Department of Transportation	9,118	12.6%	3.1%	3.1%	3.9%	3.5%	3.1%
Department of Game and Inland Fisheries	446	12.8%	4.7%	4.7%	2.7%	2.2%	2.5%
Department of Forestry	275	13.1%	1.8%	1.1%	2.5%	5.5%	1.8%
Department of Rehabilitative Services and Woodrow Wilson Rehabilitation Center	1,068	12.8%	3.8%	3.4%	3.3%	0.9%	3.3%
Department of Housing and Community Development	115	13.9%	0.9%	5.2%	3.5%	0.9%	2.6%
Department of Human Resource Management	75	14.7%	6.7%	2.7%	0.0%	4.0%	6.7%
Department of Agriculture & Conservation Services	438	15.5%	3.2%	3.9%	4.8%	2.7%	3.4%
Virginia Employment Commission	919	16.4%	6.0%	3.9%	4.6%	4.9%	3.3%
Department of Education	287	19.5%	7.0%	4.5%	3.8%	3.1%	3.1%
Department of Rail & Public Transportation	41	22.0%	2.4%	0.0%	0.0%	7.3%	0.0%

*Cumulative percentage of employees who were eligible and had not retired at the end of fiscal year 2005.

Note: Only executive and independent agencies with a minimum of 30 employees were included in the analysis.

cult to replace many employees at once. Staff at DHRM noted that smaller agencies also face substantial challenges related to retirements, because of the lack of available personnel in the agency to replace or to assume the responsibilities of retiring employees. Among the largest State agencies, several have both a high number and a high percentage of employees eligible to retire in 2005. For example, at agencies such as the Virginia Department of Transportation (VDOT), the Department of Motor Vehicles (DMV), the Department of State Police, and the Virginia Employment Commission (VEC), the percentage of employees eligible to retire currently is greater

Agencies Included in the Analysis

Agencies included in the analysis are executive branch agencies and independent agencies, where data were available. For agencies which oversee other institutions, such as the Department of Corrections, the institutions were included in the controlling agencies' workforces.

than the average across all agencies (8.5 percent) by 30 percent or more (Table 2).

In interviews, human resource staff at VDOT, DMV, Department of State Police, and VEC indicated that they are not anticipating an overwhelming number of future retirements for a variety of reasons. As previously mentioned, the Department of State Police indicated that the composition of its workforce was the same ten to 15 years ago in terms of the ages of employees and when they retire. DMV wants to hire employees with different skill sets, so the agency sees retirements as an opportunity to hire new employees with those skills.

VEC is concerned with retirements in a few areas, but also sees retirements as a way to handle the budget reduction that it anticipates over the next few years. VEC's budget is based almost entirely on federal funds, which VEC anticipates will be reduced.

**Table 2
Employees Eligible to Retire in 2005 at the Largest State Agencies**

Source: JLARC staff analysis of VRS and DHRM data.

Agency Name	Number of Employees Eligible to Retire	Total Employees	Percent Eligible to Retire
Department of Environmental Quality	80	794	10.1%
Department of Taxation	74	853	8.7%
Virginia Employment Commission	149	919	16.2%
Department Alcoholic Beverage Control	87	939	9.3%
Virginia Information Technologies (VITA)*	52	1,028	5.1%
Department of Rehabilitative Services and Woodrow Wilson Rehabilitation Center	137	1,068	12.8%
Division of Community Corrections	123	1,304	9.4%
Department of Social Services	81	1,554	5.2%
Department of Motor Vehicles	226	1,866	12.1%
Department of Juvenile Justice	171	2,184	7.8%
Department of State Police	295	2,510	11.8%
Department of Health	305	3,467	8.8%
Department of Mental Health, Mental Retardation, and Substance Abuse Services	607	8,340	7.3%
Department of Transportation	1,138	9,118	12.5%
Department of Corrections, Division of Institutions	374	9,873	3.8%

*Retirement rates for VITA may change in future years due to outsourcing.

Note: Data analyzed includes only employees who were eligible to retire with an unreduced benefit, at executive and independent agencies with a minimum of 30 employees.

VDOT indicated in its workforce plan and an interview that retirements were expected to remain static over the next decade. In the past decade, VDOT experienced the loss of many engineers due to retirements, and now it sees a leveling of the trend. VDOT has taken a number of steps to ensure that more engineers will be available to fill positions as needed. It also noted in its workforce plan that a reduction in construction could offset some of the anticipated retirements.

The level of concern over potential retirements among these large agencies appears reasonable. Other State agencies' level of concern with retirements and their ability to handle anticipated retirements are discussed further in Chapter 2.

Some Agencies with Large Percentages of Employees Eligible to Retire in the Next Ten Years Are Concerned about Future Retirements

While some of the largest agencies are not concerned about potential retirements over the next ten years, some other agencies face levels of potential retirements that could be difficult to manage (Table 3). In these agencies, as much as 40 to 58 percent of the total agency workforce will become eligible for full retirement in the next ten years. Even if only a fourth of the eligible employees choose to retire, these agencies could experience large losses of employees with many years of experience.

Most State agencies with such large percentages of employees eligible to retire in the next ten years recognize the potential problem and expressed concern about the impacts of future retirements.

Most State agencies with large percentages of employees eligible to retire in the next ten years recognize the potential problem and expressed concern about the impacts of future retirements. However, these agencies had clearly identified the positions which they anticipated were at risk. Often, these agencies had already taken steps to mitigate the potential loss of employees in critical positions. In interviews, most of these agencies indicated that they anticipated an increase in retirements, but not a sudden, overwhelming increase in retirements. Most of these agencies indicated in their responses to the JLARC survey that knowledge transfer is a high or very high priority, and the vast majority indicated that they had the tools and information needed to do workforce planning. With regard to succession planning, only four agencies listed in Table 3 indicated that they faced barriers, such as inadequate staff, funding, or guidance.

One agency, VEC, does not view the upcoming volume of retirements as a critical issue. As previously mentioned, VEC views retirements as a way to handle the reduction in federal funding that it anticipates over the next few years. Another agency, the Department of Mental Health, Mental Retardation,

Table 3
Agencies with the Largest Percentage of Employees Eligible to Retire in 2005-2014

Source: JLARC staff analysis of DHRM data.

Agency Name	Number Eligible	Number Employees	Percentage Eligible
Department of Education	166	287	57.8%
Department of Mines, Minerals & Energy	131	227	57.7%
Virginia Employment Commission	508	919	55.3%
Department of Corrections, Central Activities	163	323	50.5%
Department of Agriculture & Consumer Services	212	438	48.4%
Department of Accounts	42	91	46.2%
Department of Human Resource Management	34	75	45.3%
Department of Rehabilitative Services and Woodrow Wilson Rehabilitation Center	462	1,068	43.3%
Department of Taxation	363	853	42.6%
Department of Game and Inland Fisheries	189	446	42.4%
Marine Resources Commission	58	139	41.7%
Department of Correctional Education	275	671	41.0%
Department of Fire Programs	13	32	40.6%
Department of Motor Vehicles	753	1,866	40.4%
Division of Community Corrections	514	1,304	39.4%

Note: Data analyzed includes only employees who were eligible to retire with an unreduced benefit, at executive and independent agencies with a minimum of 30 employees.

and Substance Abuse Services (DMHMRSAS), indicated that workforce issues such as turnover among direct care providers are currently more pressing than issues related to future retirements. However, it also noted that retirements in combination with turnover could negatively impact the future operation of the agency.

Retirements of Employees in Certain Positions May Be of Concern to Some Agencies

Across all State agencies and classified positions, the rate of retirements due to the aging of the workforce does not appear to be a major concern. However, for certain classified positions in some agencies, the potential for retirements that might adversely affect agency operations is more troubling.

A large percentage of management employees are eligible to retire in 2005, or will become eligible over the next five to ten years. It is not surprising that management and supervisory positions would have a higher proportion of employees eligible to retire, since these positions typically would be filled by employees with more experience and years of service. Among the management and supervisory positions of specific concern are Security Manager, Probation Manager, Nurse Manager, General Administrative Manager, and several manager positions at VDOT.

Security Manager. Security Manager II positions are dispersed among 42 different State agencies or institutions, pri-

marily correctional facilities. The institutions with the highest numbers of employees in this position have fewer than 30 employees in these positions. Security Manager III positions are similarly dispersed, and there are fewer at each location (not more than six each in 2005). The Department of Corrections (DOC), which provides oversight of correctional institutions, expressed concern in its workforce plan over potential retirements among Security Manager II and III positions. These are primarily senior and executive management positions, such as wardens, superintendents, and probation and parole chiefs. However, in its response to the JLARC survey of State agencies, DOC mentioned corrections officers as positions in which it was concerned about critical vacancies, but not security managers. DOC anticipates critical vacancies because of inadequate compensation and small recruitment pools. DOC indicated that it does not foresee problems resulting from the retirements of security managers due to its development programs and its succession planning efforts.

Probation Manager I. Probation Manager I positions are employed in two agencies, DJJ and the Division of Community Corrections (DCC). DCC included Probation Manager I positions as the most critical position for which it anticipates vacancies in the next five years. The corresponding title for a Probation Manager I at DCC is district chief. DCC indicated that it has been aware of the potential for many retirements for the last six years, and in the last two years, reported that it lost 25-35 percent of the employees in district chief positions. DCC is evaluating how to provide better training for employees in potential successor roles. It is also encouraging a careful review of persons hired into deputy chief positions because these employees fill a potential successor role. Although the deputy director for DCC identified the level of potential retirements among district chiefs as a critical issue, he did not describe the anticipated level of retirements as unmanageable.

Nurse Manager. Most of the employees in the position of Nurse Manager II are employed by the Virginia Department of Health (VDH). VDH had 25 employees in such positions in 2005, which accounted for almost half of the number employed statewide. In its workforce plan, VDH did not indicate that it was specifically concerned with potential vacancies due to retirements among Nurse Managers. However, it did indicate that it was concerned with positions for registered nurses because of national trends with regard to the availability of public health professionals, such as nurses. In its response to the JLARC survey, VDH indicated Nurse Managers and nurses are positions where critical vacancies are anticipated in the next five years. Retirements are one reason vacancies are anticipated. Other reasons included a shift in the skills needed

by its nurses and competition with the private and public sectors.

DHMRSAS also expressed similar concern over the availability of nurses and retaining current staff. DMHMRSAS identified licensed practical nurses, registered nurses, and nurse managers among those positions where it anticipates critical vacancies in the next five years. Retirements, inadequate compensation, small recruitment pools, difficult work environments, and lack of opportunities for growth were among the reasons cited for these anticipated vacancies. The agency has been focused on improving the recruitment, retention, and training of employees in nursing roles. For example, the agency provides opportunities for its direct care staff to attain further education. The agency provides an on-site adult education instructor at one of its facilities, and tuition reimbursement for employees. In terms of recruiting, the agency has used an international recruitment program for registered nurses.

One factor contributing to the shortage of nurses is the difficulty in filling nursing faculty positions. In interviews, several community colleges which employ nursing faculty mentioned this as an issue. The director at DHRM confirmed that the shortage of nursing faculty has been identified as a critical issue.

General Administrative Manager. One of the few positions that has consistently ranked among the top 20 in terms of the percentage of employees eligible to retire in 2005 and across the next five-year and ten-year periods is the General Administrative Manager III position. General Administrative Manager III positions are spread among 43 different agencies and institutions. Most agencies have fewer than ten employees in this position. However, this is a senior-level position and employees in this position may have critical knowledge or skills that would be difficult to replace. Examples of specific titles given to employees who are in the position of General Administrative Manager III include director, deputy director, and assistant commissioner.

In the JLARC survey of State agencies, several agencies mentioned that they anticipated critical vacancies in the next five years for one or more General Administrative Manager II or III positions. The primary reason cited by agencies that anticipated critical vacancies in these roles was retirement. In addition to retirement, one agency mentioned as a concern the small recruitment pool of talent available. The extent to which the State should be concerned with potential retirements among General Administrative Managers depends on agencies' individual succession plans for these roles. An assess-

ment of agencies' efforts to conduct succession planning is discussed in Chapter 2.

Management Positions in VDOT. In four of the management positions in which high percentages of employees are eligible to retire over the next ten years, the majority of the employees are located at VDOT. These positions include Equipment Services Repair Manager I, Transport Operations Manager II and III, and Architect/ Engineer Manager II. With the exception of the Equipment Services Repair Manager I position, VDOT indicated in its workforce plan that it regards these positions as critical to the agency's functioning. With regard to Transport Operations Manager II and III positions, VDOT indicated that it is concerned about potential retirements, but also noted that retirements could be offset by a reduction in the construction program at VDOT.

With regard to engineers, VDOT indicated in its workforce plan that retirements are leveling off relative to the past decade. In addition, it has increased the number of engineers potentially available for permanent engineering positions through its Engineering Scholar and Engineer Development programs. It has also taken steps to ensure that knowledge transfer occurs prior to the departure of veteran engineers and other employees.

The Impact of Retirements on Institutions of Higher Education

In evaluating the impact of future retirements among higher education institutions, JLARC staff relied partly upon data provided by a sample of four-year colleges and universities and the Virginia Community College System (VCCS). Since many faculty participate in the Optional Retirement Plan rather than the Virginia Retirement System, complete data on faculty eligibility for retirement were not available through VRS. The partial data available through VRS show that projected potential retirements among faculty over the next ten years are similar to those for classified State employees collectively. In addition, the partial data provided to JLARC staff by colleges, universities, and VCCS show that recent levels of retirements among faculty are similar to the statewide average for classified employees, approximately two percent in 2005.

Faculty Retirements. Staff at many higher education institutions indicated that faculty often do not retire once eligible. Many estimated that fewer than half retired once eligible for an unreduced benefit. The College of William and Mary was able to provide data on how many teaching faculty, classified employees, and administrative/professional faculty retired among those eligible in FY 2005. About 15 percent of faculty who were eligible to retire with an unreduced benefit actually re-

tired. Classified employees at the college, in contrast to faculty, were more likely to retire once eligible, with 27 percent of those eligible for an unreduced benefit retiring in FY 2005. Human resource staff at the colleges contacted by JLARC indicated that faculty choose to delay retirement for reasons that are similar to other State employees, such as the cost of health care. However, compared to the responses from human resource staff at other State agencies, the colleges' human resource staff more frequently mentioned their faculty's satisfaction with their jobs as a reason for delaying retirement.

Based on interviews with staff from a sample of higher education institutions, State universities and four-year colleges appear to view retirements as an opportunity to reshape their workforces, rather than a liability.

Based on interviews with staff from a sample of higher education institutions, State universities and four-year colleges appear to view retirements as an opportunity to reshape their workforces, rather than a liability. Several four-year colleges and universities have been proactive in managing retirements by instituting programs which encourage employees who are nearly eligible for full retirement to retire, subject to the approval of various administrators. In addition, although a high number of faculty could retire, unlike with most other positions, colleges often have six months or a year of notice prior to a retirement, which gives the college much more time to find a replacement than is typical for other State institutions. Staff from colleges indicated six months was usually sufficient notice to find a permanent (tenure track) replacement. One drawback of retirements noted by several colleges is the cost of recruiting a replacement. Many colleges acknowledged that replacing faculty sometimes requires paying much higher starting salaries, which may exceed the salary of the employee retiring and those of other faculty with many years of experience.

In contrast to four-year colleges and universities, community colleges are more concerned about faculty retirements, especially the possibility that many retirements will occur simultaneously. At many colleges, the employees who will potentially retire in the next five to ten years are among those who were first hired when the community college system was established in the late 1960's. Statewide, the actual percentage of faculty presently eligible to retire is higher than the statewide average, but only slightly so. Based on data provided by VCCS, a higher percentage of faculty are eligible to retire (11.6 percent as of April 30, 2004) than the statewide average for classified employees eligible to retire on June 30, 2005 (8.5 percent). Slightly fewer faculty are eligible to retire over the next ten years (30 percent) as compared to classified employees (34.6 percent).

Community colleges often indicated they had problems recruiting new faculty, especially if the school is located in a rural area which is economically depressed. With the exception of nursing faculty, there were no particular types of faculty which

multiple community colleges were concerned about recruiting or retaining. Several community colleges reported that hiring nursing faculty is an issue. For example, in its response to the JLARC survey, Blue Ridge Community College specifically mentioned nursing faculty as among those positions where it anticipates critical vacancies in the next five years. The college cited compensation and retirements as the two reasons for anticipated critical vacancies. More generally, community colleges are focused on addressing the shortages in nursing. Some have developed partnerships with hospitals to provide learning on site, for example.

Non-Faculty Retirements. Among all higher education institutions, the average number of classified, non-faculty employees eligible to retire currently and over the next five and ten years was less than for State employees in executive branch agencies (Table 4).

Higher education institutions expressed concerns specifically about the availability of classified employees in the areas of housekeeping, maintenance (journeyman level), campus security, and information technology. The maintenance employees, specifically those with trade certifications, were sometimes mentioned as being vulnerable positions due to retirements. Data on the number of employees eligible to retire from skilled maintenance positions show that a higher than average number are eligible to retire relative to other types of classified positions.

With regard to the other positions, salaries and competition from the private sector or local government were the main reasons colleges were concerned about vacancies. Data on the number of employees eligible to retire from these positions generally confirms that few employees are eligible to retire from those positions currently, or in the next five and ten years. The number of employees at higher education institutions eligible to retire from security officer, law enforcement, and information technology specialist positions was well below the State average. There was a higher than average number of employees eligible to retire in some housekeeping roles; however, many colleges contract out housekeeping, so employees in these positions do not represent a large cohort of employees.

Percentage of Classified Employees Eligible to Retire

Source: JLARC staff analysis of DHRM and college data.

Type of State Agency	Time Period		
	2005	2005-09	2005-14
Higher Education	6.4%	17.7%	34.2%
Executive & Independent Agencies	8.5%	20.3%	34.6%

Agency Preparations for the Impacts of an Aging Workforce

In Summary...

While the projected impact of retirements is not as severe as suggested based on the number of employees eligible to retire over the next decade, an aging workforce is a serious concern for some agencies and institutions. The best way to address these concerns is through continued monitoring and workforce planning. The Commonwealth recognizes the value of workforce planning and recently asked agencies to craft workforce plans and develop strategic plans. A review of agencies' 2004 workforce plans found that they generally identified relevant workforce issues and appropriate strategies for dealing with those challenges. The Department of Human Resource Management has provided information and tools that State agencies can use to continue to develop their response to the impacts of an aging workforce.

Beginning in 1998, the Department of Human Resource Management (DHRM) recognized the potential problems associated with being unprepared for the increasing numbers of State employee retirements that could result from an aging workforce. In 2004, DHRM initiated a more formalized state-wide workforce planning program in State agencies. The resulting workforce plans and various tools provided by DHRM have reduced the risk for State agencies of unmanageable turnover resulting from retirements. Most agencies now appear better prepared for retirements and other workforce changes likely to occur over the next ten years.

State Agency Workforce Planning Activities

To the extent that agencies accurately anticipate and plan for meeting future staff needs, they may be better prepared to provide services in the future. For this reason, the Department of Human Resource Management (DHRM) requested that agencies create workforce plans in 2004, and established a formalized government-wide workforce planning effort. The effort was designed to increase agencies' awareness of the value of workforce planning in identifying and responding to staffing challenges. As part of this initiative, DHRM consolidated information from agency workforce plans, surveyed agencies on workforce issues, created web-based tools for workforce data analysis, and identified positions which were vulnerable to retirements. In their workforce plans, State

agencies were asked to focus on current staffing issues as well as future needs, and to develop strategies to ensure a high level of performance in areas such as retention and recruitment. The agencies were also asked to evaluate the adequacy of staff and resources to meet their mandates.

Review of Workforce Plans

Because agency workforce plans, and the strategies outlined in them, are the primary response of DHRM and agencies to the aging of the State workforce, a review of those plans was completed for this study. The purpose of the review was to determine whether agencies viewed retirements as a critical concern relative to other workforce issues and whether the agencies' workforce plans identified appropriate strategies for addressing their human capital needs. Specific information that JLARC staff sought to capture from its review included the extent to which agencies had gathered and analyzed basic demographic information on their workforces, such as employees' years of service and age, turnover levels and the reasons for turnover, and the education levels of employees. In addition, JLARC staff looked at whether agencies were concerned with areas other than retirements, such as employees' skill levels, the availability of workers, or changes in agencies' programs or operations. If problems were identified, JLARC noted whether strategies had been identified for addressing those problems.

In September 2004, DHRM issued a report on State workforce planning. This report included many statistics for the period September 2000 to June 2004 by agency and employee roles, including information on turnover, changes in the number of employees, reasons for turnover, and projections of the number of employees eligible to retire within the next ten years. The report focused on agencies and positions potentially at risk with regard to staffing. In addition, this report includes the results of an agency survey conducted by DHRM prior to the agencies' deadline to complete their workforce plans. The survey asked agencies to assess their level of readiness for handling their workforce challenges. Agencies were asked both to describe staffing issues and their strategies for addressing those issues. DHRM reported that, based on agencies' responses, the two underlying workforce planning issues were agencies' aging workforces and their lack of adequate resources.

In 2005, agencies were asked to update, refine, and revise their workforce plans. Agencies were also expected to integrate some of the information from their updated workforce plans into their strategic plans for 2005. These strategic plans are linked to agencies' goals and the State budgeting process, so they provide greater context for understanding the agencies' human capital needs. Most of the 75 executive agencies that DHRM asked to create a workforce plan complied (85 percent), and these plans now are the foundation for the agencies' strategies to manage an aging workforce, as well as other important workforce challenges.

A review of agencies' workforce plans for this study found that the plans vary considerably in terms of the level of detail and comprehensiveness of the analysis. In general, larger agencies included more detail and more carefully analyzed relevant workforce issues. Many large agencies, for example, had reviewed workforce demographic data by department, division, equal employment opportunity class code, or type of position. For very small agencies, the workforce demographics and issues might be more readily apparent without analysis. These plans tended to be much shorter and to contain less detail. Regardless of the sophistication of the analysis involved in the preparation of the workforce plans, the important consideration was whether agencies used the information to draw meaningful conclusions about their workforce needs.

Based on the review of workforce plans, it appears that many agencies identified relevant workforce issues and described appropriate strategies for addressing those issues.

Based on the review of workforce plans, it appears that many agencies identified relevant workforce issues and described appropriate strategies for addressing those issues. However, some agencies need to present identified issues in a way which is more clearly tied to strategies for improvement. For example, the number or percentage of employees who are close to retirement is documented in some agencies' plans, but the agencies do not provide the appropriate context for understanding that data. Therefore, it is difficult to discern whether or not the agency considers retirements due to its aging workforce a pressing problem. Other agencies listed potential strategies for handling staffing issues, but it is unclear whether the agencies had considered which strategies would work best for their agency or when the agency planned to implement the strategies. The recent requirement that agencies submit strategic plans, including a section on human capital needs, should prompt some agencies to evaluate their workforce issues and strategies in more depth.

Agencies Are Concerned About Future Retirements Among High Level Managers

Based on a review of the workforce plans submitted to DHRM in 2004, about half of the agencies, a total of 32 agencies, are concerned about at least some potential employee retirements. Most of these agencies also identified one or more strategies for handling potential retirements. Among agencies concerned about potential employee retirements, six indicated that they were still only in the initial stages of planning for anticipated retirements. For three other agencies, it was unclear whether they had any specific concerns regarding future retirements.

Agencies that indicated in their workforce plans that they were concerned about retirements typically were concerned with the loss of a few senior managers, rather than with retirements among the agency as a whole or with the rank and file employees. Agencies often mentioned that they were concerned about the loss of these employees' special skills, institutional knowledge, and ability to handle tasks which previously were handled by two or more employees. About half of the agencies which had concerns about retirements indicated that the transfer of knowledge from retiring employees to other staff is a concern. Overall, one-third of all agencies indicated that both retirements and knowledge transfer are concerns.

The key positions identified in workforce plans as vulnerable to retirements were similar to those identified by agencies that responded to the JLARC survey. The workforce plans identified senior management positions as critical positions for which knowledge transfer and succession planning are a priority. A few agencies specifically mentioned General Adminis-

trative Manager positions, which is consistent with data that shows a high percentage of employees in this position will be eligible for full retirement over the next five-year and ten-year periods.

In their workforce plans, about half of the agencies indicated that turnover in one or more positions is a concern. For some agencies, this may exacerbate the negative impacts of retirements. Most often agencies were concerned with a very limited number of positions. Nonetheless, agencies described filling these positions as critical to the functioning of the agency. For some positions where agencies are concerned about the combined impact of both turnover and retirements large numbers of employees fill the positions. Examples of these positions include nurses, accountants, and direct care employees.

Knowledge Transfer and Succession Planning Are a Priority for Most Agencies

In their workforce plans, most agencies discussed knowledge transfer with regard to employees near retirement. Eighty percent of agencies that identified the transfer of institutional knowledge as a concern (28 agencies) also identified strategies for addressing this need. These strategies included leadership training, cross-training, dividing responsibilities among multiple staff, mentoring, creating a new position which provides some overlap with the position where knowledge transfer is a concern, documenting procedures and policies, and double-filling positions. In interviews, some agencies noted that cross-training or other knowledge transfer activities already take place.

Nearly 81 percent of respondents to a JLARC survey indicated that they consider knowledge transfer activities for addressing expected retirements a high or very high priority.

Knowledge Transfer. Compared to the agencies' workforce plans created in 2004, agencies' responses on the JLARC survey suggest that a much higher percentage of agencies now consider knowledge transfer and succession planning important priorities. Nearly 81 percent of respondents to a JLARC survey indicated that they consider knowledge transfer activities for addressing expected retirements a high or very high priority. Similarly, 84 percent of agencies indicated that they are engaging in knowledge transfer activities such as cross-training, documenting of procedures, mentoring, and double-filling. Responses on the JLARC survey suggest that agencies are increasingly aware of the potential impacts of retiring employees and the importance of knowledge transfer.

The results from the JLARC State agency survey and the employee survey suggest that agencies and employees agree that training is often the best way to implement knowledge transfer. However, agencies and employees appear to have different perceptions regarding the best training method. Employees who are within in five years of being eligible for full re-

retirement who responded to the JLARC survey most often indicated that their agency needed to hire a replacement before they retired, so they could train the new employee. Agencies' responses, however, indicated that they seldom hire a replacement before an employee retires, which is referred to as double-filling a position. Seventy-one percent of agencies indicated that they seldom double-fill a position. On the other hand, respondents to the JLARC employee survey mentioned that cross-training was needed almost as frequently as double-filling. Agencies frequently do rely on cross-training, with 86 percent of agencies indicating that they sometimes or often rely on it.

Succession Planning. In interviews with agency staff and in open-ended responses on the JLARC survey, agencies frequently linked knowledge transfer activities with succession planning. On the JLARC survey, most agencies that responded indicated that they have the tools needed to perform succession planning (68 percent). However, a substantial percentage indicated that they lack such tools (32 percent). In most cases, agencies identified resources, such as funds and staff, as the tools the agency is lacking. Fewer than fifteen percent of all agencies indicated that they need policy guidance or models on how to do succession planning from DHRM.

The number of agencies indicating that they lack the tools needed for succession planning due to resource constraints suggests that some agencies may already be strained by vacant positions and reductions in staffing while facing an increasing workload. In interviews with staff at some agencies, they indicated that they would prefer to engage in more succession planning, but their employees face overwhelming responsibilities and lack the time needed for mentoring or training. In addition, many agencies indicated that it was important to hire employees with the knowledge, skills, and abilities (KSA's) for positions rather than training someone to fill the position because the agency's current staff would not be able to devote the time necessary for training.

Addressing Training Needs Will Prepare Agencies for Future Employee Retirements

About half of the agencies indicated in their workforce plans that training is a concern. Supervisory and management skills were frequently mentioned, as well as computer skills. Other types of training mentioned were generally unique and specific to employees in a particular agency or position. Supervisory and management skills are critical skills, both for retaining employees and for enabling them to move into more senior level positions.

DHRM has taken steps to address the need for training supervisors and managers by creating a new course which was developed through the input of many agencies' representatives. In interviews, agency staff frequently mentioned that they intended to take advantage of this new course. Agencies that indicated that training was a concern often mentioned resources as a constraint, either in terms of funding or the time needed for employees to participate. DHRM is trying to at least partly address these barriers. For example, DHRM recognizes that with budget reductions, training is often one of the cost items that agencies frequently will reduce. DHRM decided to eliminate the fees for training, thereby eliminating the cost of training as a barrier to broader agency participation.

Some agencies indicated in their workforce plans that they needed to assess the skills of their employees systematically to identify gaps, as part of future workforce planning. There is currently a learning management system (LMS) which is being piloted by eight agencies which should assist agencies with tracking training and identifying the competencies of their employees. LMS automates information collection and makes it easy to document the training employees receive. This type of system should be useful in enabling agencies to efficiently identify skill shortages and identify employees who may be able to fill skill gaps which are the result of retirements or other employee turnover.

Agencies Can Use Other Strategies to Address Human Capital Needs

Beyond workforce and succession planning, knowledge transfer, and training, agencies can use other strategies to address issues of retention and recruitment related to retirements. For example, reforms to the compensation system that were instituted September 25, 2000, gave agencies much greater flexibility to reward employees through compensation. Agencies were given the ability to make competitive salary offers, pay bonuses, and adjust salaries to align salaries internally or externally by up to ten percent of an employee's annual salary. In addition, a "pay for performance" system was established, which is intended to enable agencies to grant salary increases to employees based on their annual employee evaluations.

In interviews with agency staff and in the JLARC survey, agencies indicated that they appreciate the flexibility compensation reform has given them. On the JLARC survey, 83 percent agreed or strongly agreed with the statement that compensation reform has given the agency the tools it needs to address recruiting issues, and 75 percent agreed or strongly agreed that compensation reform had given them the tools needed to address retention issues.

Data available from DHRM on agencies' use of these tools, however, show that agencies rarely use many of the tools available to them. In some cases, this may be due to budget constraints. In other cases, it may be attributable to agencies not needing to use special tools in order to fill positions. Both of these comments were heard in interviews with agencies' staff. Table 5 summarizes the use of pay actions by State agencies in FY 2005.

Table 5
Average Frequency of Use of Common Pay Practice for Classified Employees in Fiscal Year 2005

Source: DHRM data

Type of Pay Practice	Total Number	Percentage
Competitive Salary Offer	298	0.4%
Change of Duties	1,590	2.3%
Internal Alignment	6,086	8.9%
New Knowledge/Skills/Abilities	1,469	2.1%
Non-Monetary Bonus Award	1,966	2.9%
Monetary Bonus Award	4,681	6.8%

In addition to implementing compensation reform, DHRM has provided agencies with information on other strategies available for addressing recruiting and retention issues. In interviews, agencies frequently mentioned cross-training and career ladders as strategies for dealing with potential vacancies and retention, respectively. Other strategies mentioned included flexible schedules, internships, targeted recruiting, opportunities for training, and reimbursement for education.

Overall, agencies indicated that DHRM provides at least a satisfactory level of support in terms of advice, responsiveness to questions, and communicating information (over 93 percent in each category). About 53 percent rated DHRM's communication of information regarding workforce planning "good" or "excellent." A few agencies commented that not much guidance had been provided regarding the 2004 workforce plans, and several noted that DHRM had not provided feedback on their 2004 workforce plans.

Other States Have Developed Additional Tools for Workforce Planning

In some states, human resource agencies provide agencies with sophisticated analytical tools for workforce planning. For example, Georgia makes an online tool called SWIFT available for agencies to analyze the demographic features of their workforces. Georgia requires executive branch agencies to complete workforce plans, and its human resources depart-

ment reviews plans to determine if there is alignment among agencies' strategic goals, workforce gaps, and strategies for addressing those gap. Staff from Georgia's human resources department indicated that the process of workforce planning and using the online tools was enlightening for many agencies; it turned agencies' attention to problems that some did not realize existed. Similarly, South Carolina has an automated system that provides agencies with access to helpful demographic information regarding their workforces.

Pennsylvania also uses sophisticated workforce planning tools. Pennsylvania calculates the percentage of employees in each job classification that retire upon becoming eligible and uses those numbers to predict future retirements. Analyzing this information has assisted the state with workforce planning. For example, the state realized that many human resource staff across all agencies would likely retire within a short time frame. The state took proactive steps to minimize the impact of these impending retirements.

Virginia's involvement in formal statewide workforce planning activities is more nascent compared to South Carolina and Georgia's workforce planning activities. Both South Carolina and Georgia have been engaged in their current workforce planning activities for more than three years. However, Virginia's workforce planning process, the tools available to agencies, and the strategies used by Virginia to address staffing issues appear generally comparable to those of South Carolina and Georgia.

Strategies Agencies May Want to Consider for Employees Near Retirement

Some other strategies that appear promising may be underutilized by agencies. These strategies include practices such as hiring employees back in P-14 positions or allowing them to work 32 hours while maintaining health benefits. The use of retired employees as P-14s has been reported by a few agencies. This practice serves to smooth the transition for both the agency and retiring employees, but there are restrictions on the practice. It cannot be used to keep an employee in essentially the same role, but working fewer hours. Some agencies have successfully hired retired employees as P-14s, such as the Tax Department and the Attorney General's Office. DRS plans to encourage retiring employees to consider working in part-time positions or on temporary special assignments by providing them with more information on these kinds of opportunities.

Based on the results of the JLARC survey of employees who retired from State government within the last five years, approximately 44 percent work after retiring from State govern-

ment. A relatively small percentage of those surveyed, 11 percent, indicated that they currently work for the State in a part-time or hourly position. However, among those who are employed but not currently working for the State government, 48 percent indicated that they would consider working for the State again. This suggests that agencies could potentially attract a larger number of retired employees to return to work for the State in P-14 positions.

Although no agencies reported using a 32-hour work week by employees approaching retirement, it may be an attractive option since it would allow employees to retain health care coverage while working fewer hours. The cost of health care was mentioned in both interviews with agencies and in the responses on the JLARC employee survey as a key factor influencing when employees choose to retire. The option of working 32 hours a week while maintaining health care benefits is relatively new. Previously, employees were required to work 40 hours per week to receive health benefits. Encouraging or offering employees the option to work a reduced schedule may appeal to employees close to retirement who are not yet ready to stop working altogether.

In response to a JLARC survey, both VRS and DHRM expressed an interest in the concept of phased retirement, which allows employees to draw retirement benefits in addition to wages. However, the Internal Revenue Service has not issued rules for phased retirement under defined benefit retirement plans. According to DHRM, phased retirement benefits both employers and employees. Phased retirement keeps experienced, committed workers on the job longer so they can mentor less experienced workers while maintaining a reasonable overall level of productivity. By reducing salary payments, funds are made available to allow for hiring of less experienced employees who can begin learning the skills necessary to eventually replace more experienced retiring employees. Phased retirement also provides employees with an opportunity to continue to perform productive work, but at reduced hours. Based on State agencies' responses on the JLARC survey, about 84 percent of the respondents are interested in having a phased retirement option.

The Impact of the Aging State Workforce on Retirement Benefit Costs

In Summary...

As the workforce ages and the number of retirees increases, costs associated with many employee benefit programs will similarly increase. As a defined benefit plan, the Virginia Retirement System (VRS) will be faced with meeting the pension obligations of a growing number of retirees. As a mature system, VRS is now paying out more in benefits than it receives in contributions, with the difference being made up with investment income. Due to a number of mitigating factors, the much anticipated wave of retirements may instead resemble a pattern of continued, steady retirements over time. Due to the demographics of the State's workforce, VRS' current funded status, as well as the implementation of new accounting rules, pre-funding benefits will become increasingly important to ensure the financial health of the State's defined benefit plan and other post-employment benefits.

In general, the State, like other employers, provides benefits to its employees and later to its retirees to aid in recruitment, to encourage retention, to reward performance, and to be competitive with other employers. The Commonwealth's general objective is to provide these benefits at a reasonable cost to both the employer and the employee. Overall, the Commonwealth provides salaries that are on average approximately 20 percent below market for many positions, according to DHRM's 2004 statutorily required annual salary survey. As a result, the State has long relied on the value of its comprehensive benefits package to attract and retain a stable workforce. The structure of the State's defined benefit retirement system, for example, guarantees a benefit to eligible retirees and encourages longevity. In addition to retirement benefits, the State provides a variety of other benefits to its employees and retirees, including a group life insurance program, a defined contribution plan, a disability plan, and health care coverage.

In addition to the State's defined benefit program, most of the State's other retirement benefits, including the retiree health insurance credit, are administered by the Virginia Retirement System (VRS). The Deferred Compensation Plan (DCP), Group and Optional Life Programs, and the Virginia Sickness and Disability Program (VSDP) are also administered by VRS, but are done so in conjunction with third-party administrators.

The Department of Human Resource Management (DHRM) is responsible for the State's health care benefits and the optional long-term care insurance program. The State's health care benefits program will be discussed in the next chapter.

As required by the mandate for this study, this chapter focuses on employee benefits, most notably the VRS defined benefit retirement plan. Specifically, the chapter addresses the plan's structure and its relationship to employee longevity, increased demand for benefits and the associated financial obligation, and the necessity of pre-funding retiree benefits. In addition, the chapter discusses the other employee benefits, such as the group life insurance program and retiree health insurance credit plan. The chapter also touches upon several vehicles offered to employees to support them in saving and planning for financial health in retirement. Finally, the chapter notes the increased workload and demands that may require technology infrastructure improvements at VRS.

The Defined Benefit Plan Structure Encourages State Employee Longevity

The Constitution of Virginia (Article X, Section 11) requires that the General Assembly maintain "...a retirement system for State employees and employees of participating political subdivisions. The funds of the retirement system shall be deemed separate and independent trust funds, shall be segregated from all other funds of the Commonwealth, and shall be invested and administered solely in the interests of the members and beneficiaries thereof." The VRS was established in 1942 to administer a statewide retirement system. Today, this includes 234 State agencies, 151 cities and towns, 92 counties, and 321 school boards and special authorities. As of June 30, 2005, VRS had 325,025 active members and 119,360 retirees and beneficiaries.

VRS administers the retirement system for State employees, teachers, and employees of political subdivisions; the Virginia Law Officers' Retirement System (VaLORS) for certain designated State employee groups such as correctional officers and the Capitol Police; the State Police Officers' Retirement System (SPORS) for sworn State police officers; and the Judicial Retirement System (JRS) for State judges, Commissioners of the State Corporation Commission, and the Virginia Workers' Compensation Commission. Local governments may provide benefits equivalent to SPORS for their firefighters and law enforcement officers. This coverage is a local option for police, deputy sheriffs, firefighters, regional jail officers and superintendents. VRS also manages the group life insurance program, the retiree health insurance credit, disability plan, deferred compensation programs, and several other optional retirement plans.

Most full-time State employees and teachers are members of the Virginia Retirement System and participate in its defined benefit plan. According to Section 401 (a) of the Internal Revenue Code, the retirement system is a qualified defined benefit plan. A defined benefit plan will pay each eligible member a specific benefit amount based on a defined formula that uses years of service, age, and compensation. All VRS benefits are established and modified by the General Assembly through the legislative process. One of the key features of the VRS pension benefit is the statutory cost-of-living allowance (COLA). The COLA provides a degree of protection from the effects of inflation.

The structure of the defined benefit plan formula, which is based primarily on age, years of service and average final compensation, encourages employees to remain employed with the Commonwealth, particularly as employees enter the latter part of their careers. For example, because an employee's pension benefit will be increased by every month of service provided to the Commonwealth, employees have a clear incentive to remain within the Commonwealth's employ. In addition, since salaries tend to grow over the course of an employee's career, the longer one stays with an employer, the more likely his or her salary will increase. The State's plan calculates benefits based on salaries which are generally earned toward the latter part of an employee's career. As a result, higher the salaries will yield a higher pension benefit. As an employer, the Commonwealth has benefited from this structure by being able to maintain many skilled employees and their associated knowledge over time.

The VRS defined benefit is equal to the benefit multiplier (1.7) times years of service times average final compensation (AFC). Provided that an individual is eligible to retire, a pension benefit equal to this amount is paid regardless of the amount in the member's account. Member contributions are used to help fund the defined benefit, but the contributions themselves do not make up the entire benefit. The exception applies to an individual retiring under the 50/10 early retirement provision. In this situation, a retiree receives a benefit equal to the greater of the benefit formula calculation using actuarial reduction factors, or the actuarial present value of his accumulated contributions plus interest.

In order to receive a pension benefit without any reduction factor for early retirement being applied, an employee must satisfy certain age and service requirements. These requirements vary depending on whether the individual is a State employee or teacher, a political subdivision employee, a State Police officer, a Virginia law officer covered under VaLORS, or a judge.

Currently, State employees, teachers, and most political subdivision employees can retire with unreduced benefits at 65 years of age with five years of service. State employees, teachers, and employees of political subdivisions who select this benefit are also eligible to retire with unreduced benefits at age 50 with 30 years of service. State Police officers, employees in VaLORS and most local law enforcement personnel whose employers provide local enforcement officer benefits (LEOS) may retire with an unreduced benefit either at age 60 with five years of service or at age 50 with at least 25 years of service. Some political subdivisions that provide Local Enforcement Officers (LEOS) benefits do not allow unreduced retirement at age 50 with at least 25 years of service, but rather permit unreduced retirement at age 55 with at least 30 years of service. Judges may retire either at age 65 with five years of service or at age 60 with 30 years of service. While VRS members of sufficient age can retire with unreduced benefits with as little as five years of service, a greater number of years of service produces a larger pension benefit.

Employees may also retire with a “reduced” benefit. This means that the benefit is actuarially reduced when the age and service requirements for a full or “unreduced” benefit are not met. In other words, a reduction factor for early retirement will be applied to the benefit for either age or years of service. State employees, teachers, and political subdivision employees may retire at 55 years of age with at least five years of service, or at 50 with at least 10 years of service. Under the 50/10 plan, however, the benefit is lower than it would be if the employee waited until age 55 to retire.

State Police officers, employees covered by the VaLORS, and most local law enforcement personnel whose employers provide LEOS benefits, may retire at age 50 with at least five years of service. Some political subdivisions only permit their law enforcement officers to retire early at age 55 with five years of service. However, a substantial reduction factor is applied to the benefits of individuals who choose to retire early. Table 6 provides the average age and years of service at retirement. In addition, Figure 6 depicts a distribution of State employees by age at retirement and shows that 83 percent of retirees were age 55 or older at retirement.

Table 6
Average Age and Years of Service at Retirement, FY 2005

Source: Virginia Retirement System.

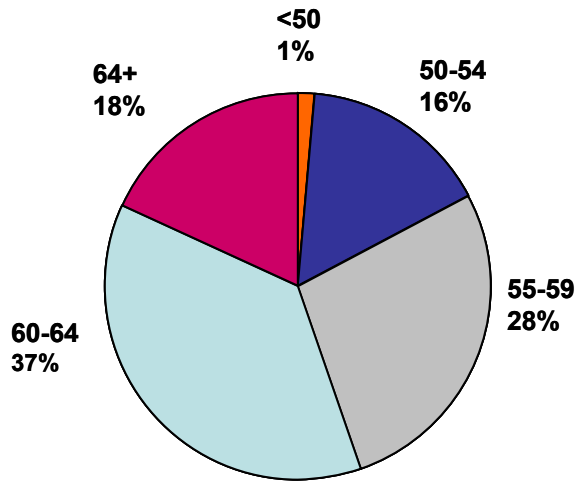
	Age	Years of Service*
State Employees	60.3	26.7
Teachers	58.8	26.4
Political Subdivision Employees	60.7	21.3
Judges	63.2	**
State Police	55.9	33.9
Virginia Law Officers	56.5	23.6

*Average service includes those who retired for service, not for disability retirements; includes purchased service.

**Since creditable service is weighted for judges, VRS could not provide the average years of service at retirement for the JRS system.

Figure 6
State Employee Age at Retirement, FY 2005

Source: Virginia Retirement System



In considering retirement income for VRS retirees, it is important to note that while VRS and Social Security are separate systems, a portion of a retiree's total retirement income is derived from Social Security. However, Social Security benefits do not affect VRS benefits. The only exceptions to this are if a member retires due to a work-related disability, retires due to regular disability and receives the minimum guaranteed benefit, or dies from a work-related cause while in service. In each case, a Social Security award will effectively decrease the

VRS benefit. In addition, Social Security benefits offer full protection from inflation.

While VRS benefits have a cost of living adjustment (COLA) component, the benefits are not fully protected from inflation increases. The VRS cost of living adjustment provides the first three percent of a consumer price index increase, plus one-half of each percent increase from three to seven percent. The maximum COLA payable is five percent. The COLA provides complete protection from inflation if the annual inflation rate is no more than three percent. For a State employee who retires after 20 years of service with a final average salary of \$25,000, four-percent inflation will erode three percent of the benefit after 20 years, while six-percent inflation will erode 14 percent of the benefit after 20 years. The COLA is a critical component in ensuring that the value of today's earned benefits is not reduced by the effects of inflation. Funding of the COLA will be discussed later in this chapter.

Employee Decisions on When to Retire Appear Linked to Social Security and Medicare Eligibility

According to the director at DHRM, the biggest drivers of employees' decisions to retire are personal. While it is difficult to predict when an employee will retire, data provided by the VRS actuary from the June 30, 2004, experience study (including data from FY 2000 to FY 2004) indicates that, on average, of those State employees eligible for an unreduced benefit, 15.5 percent retired. Of those eligible for a reduced benefit, 6.6 percent on average retired. However, the likelihood that someone would retire varies greatly across age groups. For example, those eligible for a reduced benefit who were 62 years of age or more were more than three times as likely to retire as those ages 50 to 61. While the dispersion across age groups is more evenly distributed among employees eligible for an unreduced benefit, those 62 or older are almost twice as likely to retire as those who are 50 to 61 years of age. Of retirees surveyed by JLARC, 62 percent indicated that they retired because they were eligible for full benefits by age and years of service. However, 74 percent of current State employees within five years of eligibility for retirement surveyed by JLARC indicated that they planned to continue working beyond the date when they become eligible to retire.

Seventy-four percent of current State employees within five years of eligibility for full retirement surveyed by JLARC indicated that they planned to continue working beyond the date when they become eligible to retire.

Teachers showed a different pattern than State employees in the VRS actuarial experience study. For those teachers eligible for a reduced retirement, an average of only six percent retired. In contrast, for those teachers eligible for an unreduced benefit, 24 percent retired. For teachers less than age 62 and who were eligible for an unreduced benefit, 24 percent retired and for those 62 years of age or more, 33 percent retired. For

teachers eligible for a reduced benefit, about 22 percent of those 62 years of age or more retired. On average, only five percent of teachers, ages 50 to 61, who were eligible for a reduced benefit retired.

At age 65, the age one currently becomes eligible for Social Security and Medicare, the percentage of those eligible to retire increases. For example, at age 65, 42 percent of teachers eligible for an unreduced benefit retired. Similarly, 36 percent retired with a reduced benefit. Even more State employees at age 65 retired once eligible for an unreduced or reduced benefit, 35 percent and 33 percent, respectively. Eligibility for Medicare is certainly an important factor in whether an employee will retire.

VRS Will Likely Experience Continued Growth in the Demand for Benefits

As the workforce continues to age and the number of retirees increases, the State's financial obligation for employee and retiree benefits will grow. Unlike the wave of retirements that some had anticipated, however, it appears that VRS will experience continued and steady increases in retirements over time. In addition, the existence of an aging workforce will likely increase the incidence of disability and associated costs.

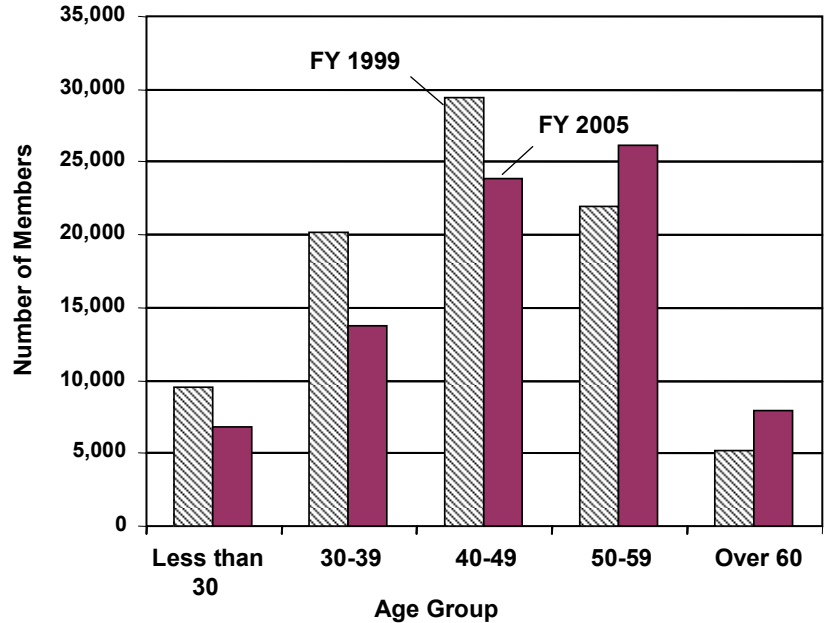
While it is difficult to predict exactly when an employee will retire, the increased number of employees eligible or approaching eligibility for retirement and the increased volume of retirees will present a variety of challenges to the VRS, including developing appropriate information technology and other systems infrastructure to address increasing demands.

The average age of active VRS members has been increasing. As shown in Figure 7, there has been a shift in the distribution of active State employees. The number of employees in the less than 30, 30 to 39, and 40 to 49 groups has decreased, but the number of employees in the 50 to 59 group and more than 60 groups has increased. Similarly, the percentage of employees 50 years of age or more increased from 31 percent in 1999 to 43 percent in FY 2005. According to DHRM, this reflects two trends: (1) employees are aging in place, and (2) more older workers are being hired.

Over the past decade, there has been considerable growth in the number of active members as well as the number of retirees and beneficiaries. In 1995 there were 262,297 active State and local members of VRS and there are now more than 325,000. There were 78,052 retirees in 1995. As of June 30, 2005, the number of VRS retirees and beneficiaries had grown to approximately 119,360.

Figure 7
VRS State Active Membership by Age Group,
FY 1999 and FY 2005

Source: Virginia Retirement System.



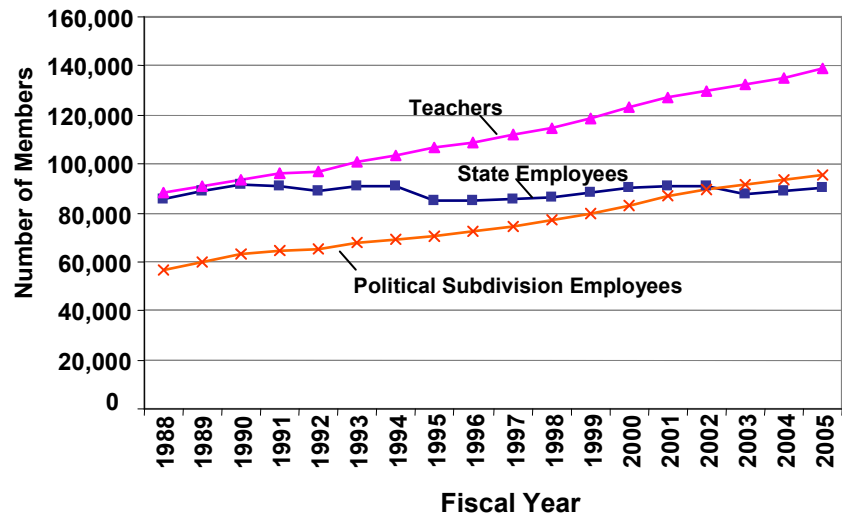
As shown in Figure 8, the State employee group, including VaLORS, SPORS, and JRS, has become the smallest active member group with both teachers and employees of political subdivisions growing at a faster rate. The number of State employees has essentially been fairly level and grown only about 6 percent over the past 17 years (85,602 in FY 1988 and 90,158 in FY 2005). For the same period, the number of teachers has grown by 58 percent and the political subdivision employees by 70 percent. Political subdivisions include, but are not limited to local entities such as counties, cities, towns, planning districts, regional jails, community services boards, soil and water conservation districts, regional commissions, and housing or other authorities. Looking at the growth of State employees from 1988 to 2005 another way, active State employees are growing on average at about one-half of one percent annually. From 1988 to 2005, teachers grew at about 2.7 percent annually and political subdivision employees grew at about 3.2 percent per year. Overall active membership in VRS for this period has been growing on average by about two percent per year.

Like growth in the active population, growth in the number of retirees varies somewhat by system. From 1995 through 2005, for example, the number of State retirees increased 31

percent (Figure 9). During the same period, the number of retired teachers increased 66 percent and the number of local retirees increased 73 percent. This is not surprising because the rate of growth for State employees over time has remained fairly level whereas growth in the number of teachers and political subdivision employees has increased at a faster pace. For the period from FY 1993 to FY 2005, the average annual growth in the number of retired teachers was 4.75 percent, for political subdivisions it was 5.65 percent, and for State employees it was 3.35 percent. As discussed in the next section, staff at VRS expects similar growth patterns going forward.

Figure 8
Retirement System Active Membership, 1988 to 2005

Source: Virginia Retirement System.

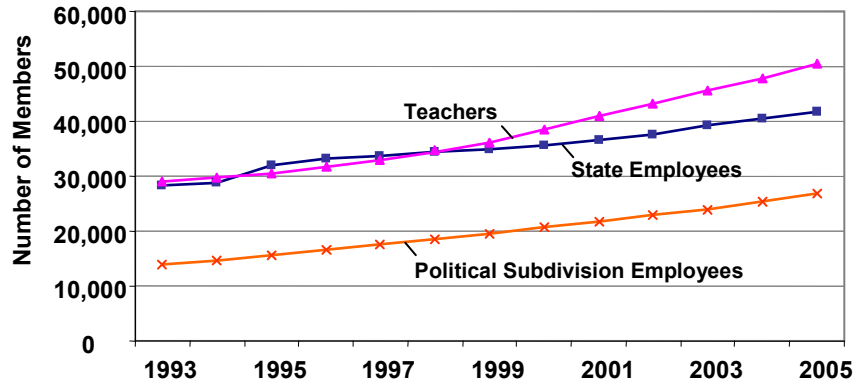


Historically, the number of active members has been growing by about two percent per year and VRS projects that this trend will likely continue through FY 2020. For example, with a growing school age population, the number of teachers will likely continue to increase.

More recently, according to data from VRS, across all of the VRS systems, the average annual increase in the number of retirees each year from FY 2000 through 2005 has been nearly five percent. VRS projects that from FY 2006 to FY 2020, the average annual increase in the number of retirees is expected to be approximately 4.4 percent. However, the gross number of employees retiring each year will also increase. For example, VRS expects that by FY 2020 approximately 8,200 employees will retire each year. In contrast, 5,643 employees retired in FY 2005. Accordingly, VRS anticipates the number of employees who retire to increase 46 percent from FY 2005 to FY 2020.

Figure 9
VRS Retirees, 1993 to 2005

Source: Virginia Retirement System.



The State’s Financial Obligation for Employee and Retiree Benefits Is Growing

As further evidence of the growth in the number of retirees , the ratio of active members to retired members at VRS shows a decline over the past 20 years. In 1984 there were 5.04 active members for every retiree. In 1994, there were 3.59 active members for each retiree, and by 2005, there were only 2.72 active employees for each retiree (Table 7). In a mature retirement system like VRS, one would expect this trend. Unlike Social Security, however, VRS is not funded on a pay-as-you-go basis. VRS benefits are pre-funded on an actuarial basis.

Figure 10 shows contributions versus expenses from FY 1994 to FY 2004. The ratios indicate that there will be upward pressure on the future calculated rates for benefits.

Table 7
Number of Active Employees for Each Retiree

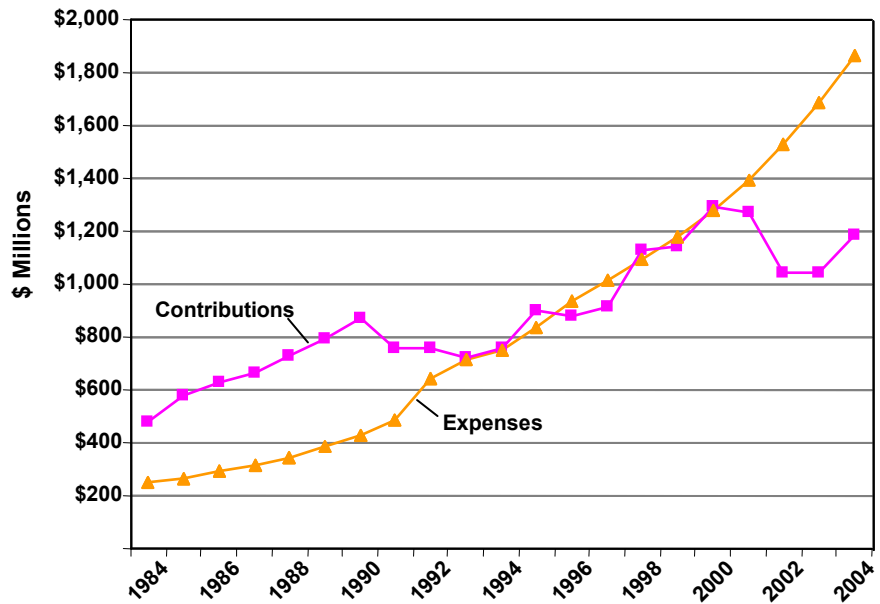
Source: Virginia Retirement System.

	1984	1994	2004	2005
State Employees	*	3.17	2.19	2.16
Teachers	*	3.47	2.83	2.75
Political Subdivisions	*	4.71	3.67	3.55
Average Across All Employees' Systems	5.04	3.59	2.79	2.72

* Data not available

Figure 10
VRS Contributions Compared to Expenses

Source: Virginia Retirement System.



The trends with respect to benefit payments further illustrate the system’s growing financial obligation. Benefit payments are influenced by the number of retirees, their average final compensation, and their years of service. Largely due to the increase in the number of retirees, benefit payments to retirees have been increasing. As shown in Figure 11, in FY 1995 VRS dispersed \$761 million in benefits. In FY 2004, the VRS dispersed \$1.76 billion in benefit payments, excluding refunds. From FY 1995 to FY 2004, the increase in benefit payments was 131 percent. During this same time period, the total number of retirees increased by 46 percent. Further, the average annual growth in benefit payments from FY 1995 to FY 2004 was 9.78 percent. In addition, inflation rose 24 percent.

Figure 12 shows the benefit payments for each of the six systems. As shown, all systems are experiencing increasing annual growth in benefits payments. For FY 2004, VRS paid \$855 million in benefits to teachers, \$552 million to State employees, and \$285 million to employees of political subdivisions. The VaLORS, SPORS and JRS systems combined accounted for almost \$69 million in benefit payments. Since VaLORS, created in 1999, is the newest system, the slope of its trend line is the steepest. As shown in the figure, benefit payments to teachers are increasing at a faster rate than payments to State employees and political subdivision employees. This is due to increasing numbers and larger salary increases for teachers.

Figure 11
Total Retirement Benefits Paid (All Systems)

Source: Virginia Retirement System.

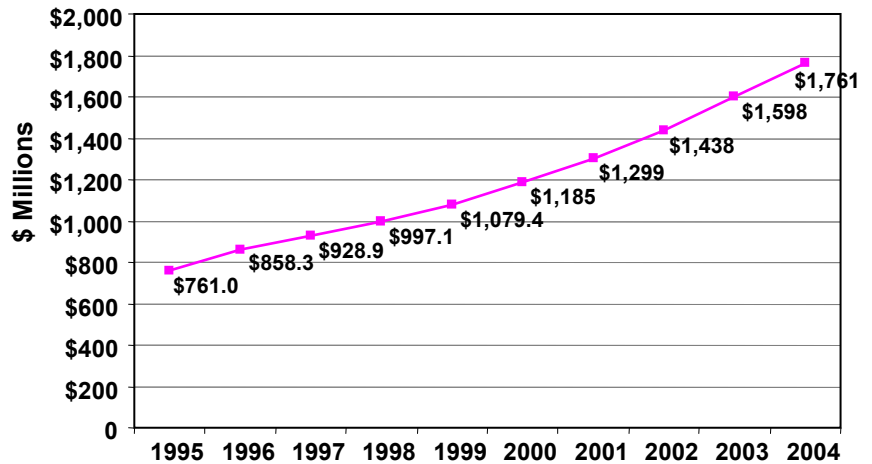
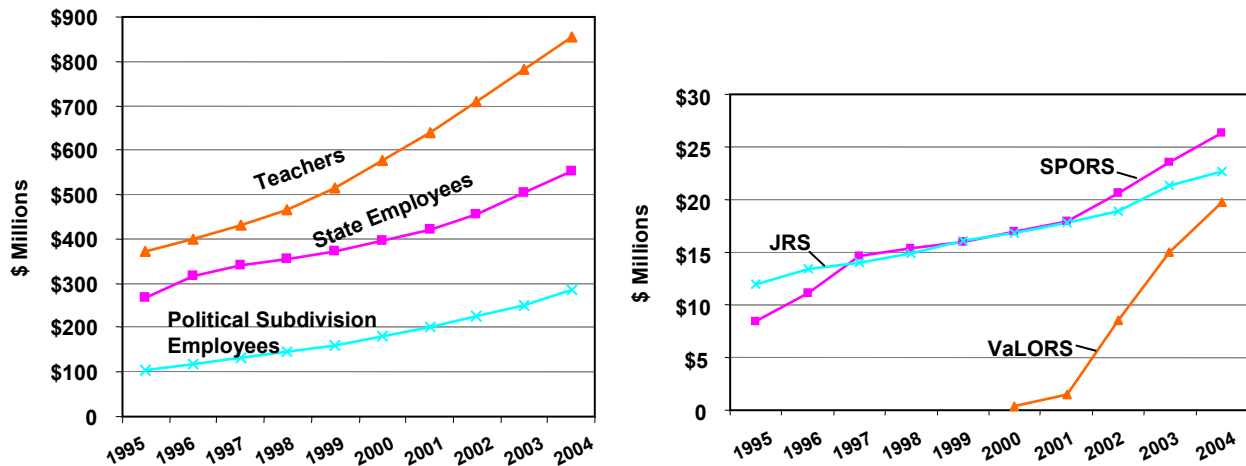


Figure 12
Retirement Benefits Paid by System

Source: Virginia Retirement System.



Actuarial Funding Methods Promote Stability of Rates and Encourage the Pre-Funding of Benefits

VRS pension benefits are funded through a combination of member contributions, employer contributions, and investment income. Member and employer contributions are invested by VRS in order to accumulate sufficient assets to pay for future pension benefits. In other words, tomorrow's pension benefits are paid for today. The cost of these benefits is captured in the actuarially determined rates applied to payroll and paid by the

employers. The member contribution rate is fixed by the *Code of Virginia* at five percent of salary. The State, as well as most of its political subdivisions, pays the member contribution for its employees. The employer contribution rate is calculated by the VRS actuary at least every two years, and typically varies over time in response to a number of factors or assumptions. The actuarial valuation, when rates are determined, considers projected pension benefits, active employee withdrawal rates, retirement rates, life expectancies, future salary increases, inflation projections, and future investment earnings. Separate employer contribution rates are calculated for State employees, teachers, State Police, other Virginia law officers, and judges. Each political subdivision has its own unique employer contribution rate.

One of the key features of the VRS pension benefit is the cost-of-living-allowance (COLA). The COLA provides a degree of protection from the effects of inflation. Previously, the COLA was funded on a pay-as-you-go basis, rather than in advance as in the case of the pension benefit itself. Currently, the pre-funded cost of the COLA is incorporated in the actuarially calculated rate.

In determining costs and liabilities, actuaries use assumptions about the future. According to the actuary, the investment rate of return generally is the most important factor or assumption affecting contribution rates. To illustrate the importance of investment income, consider the average VRS member who retires with an unreduced at age 61 with 30 years of service and lives for 24 years. According to the VRS actuary, 76 percent of benefits are derived from investment earnings. The employer and employee contributions fund 14 and 10 percent of benefits, respectively. Thus, the vast majority of a member's pension is funded through income earned on investments. That being said, contributions to the fund are essential in order to have assets available for the fund to invest and upon which investment income or earnings can be generated.

According to the VRS actuary, ideally, the assets should always equal the actuarial liability for a mature system, using reasonable assumptions for the ongoing plan of benefits. In that case, the contribution rate would consist entirely of normal cost (the cost of benefits being earned by the current active participants). The only exception to this would be in the event of an increase in actuarial liability due to a change in plan benefits (for example, legislative increase in the multiplier), in which case the plan might be underfunded for a period of time while the increase in actuarial liability due to the change is being amortized. However, in reality plan experience is always going to be somewhat different from the actuarial assumptions. As a result, 100 percent funding is not possible all of the

time. Therefore, the VRS actuary suggested targeting 100 percent, realizing that the funded ratio will fluctuate between 90 percent and 110 percent due to short-term experience. The JLARC actuary stated that the important thing is not necessarily to be at 100 percent, but to have a funding policy in place that will move toward 100 percent over a reasonable period of time. A 30-year period is normally considered by actuaries to be reasonable for this purpose.

VRS Has Recently Experienced Declines in Its Funded Status

In October 2004, the VRS actuary noted that during the prosperous years of the late 1990s, many pension systems enacted higher multipliers or other enhanced benefits for their members. In comparison to some other public pension plans, the actuary further noted that General Assembly did not greatly increase benefits across the board. Although the VaLORS system was established in 1999 and several other benefit enhancements were also instituted. The actuary noted that had additional enhanced benefits been enacted, rates would certainly be higher and the unfunded liability greater. On the other hand, the VRS actuary cautioned that not receiving the actuarially determined rate from the State, particularly for the teacher group, would add to upward pressure on the calculated rates for the 2005 valuation.

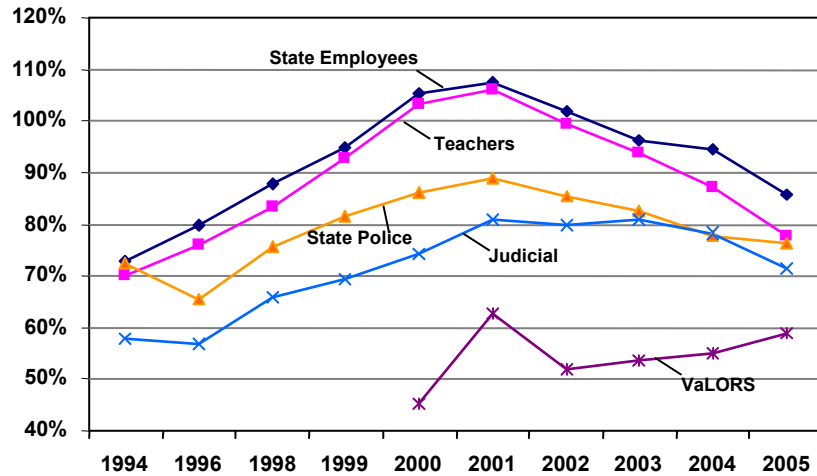
The funded status of the teacher and State employee group as well as the three other systems, has declined since FY 2001.

As noted previously, VRS includes State employees, teachers, and employees of political subdivisions. For funding purposes, however, each of these three employee groups is treated separately. Since political subdivisions are funded through local employer contributions and a separate rate is calculated for each subdivision, they are not included in this discussion. VaLORS, SPORS, and JRS are codified individually and are also funded separately from VRS. As shown in Figure 13, the funded status of the teacher and State employee group, as well as the three other systems, has declined since FY 2001. However, all of the employer groups except State Police have improved their funded status slightly since FY 1994. Based on the June 30, 2005, actuarial valuation, the State, teacher, State Police, Judicial, and the Virginia Law Officers Retirement Systems were not fully funded.

The effects of ongoing underfunding of the system are compounded by asset losses and assumption changes. According to the VRS actuary and as of June 30, 2005 valuation, the fund experienced additional declines in its funded status and increases in contribution rates mainly due to a lower discount rate and deferred recognition of asset gains and losses through the asset valuation method. Even in strong economic

Figure 13
Actuarial Funded Ratios for Major Employer Groups in VRS, FY 1994 to FY 2005

Source: Virginia Retirement System.



markets, such as FY 2004 and FY 2005, realizing improvements in the systems' funded status can take time. This is because of the five-year smoothing technique employed by the actuary. For example, the recognition of prior deferred losses caused significant losses on the actuarial value of assets in the June 30, 2005, valuation. In addition, despite excellent returns in FY 2004 and FY 2005 (17.9 percent and 12 percent, respectively, on market value basis), only 20 percent of the gain over 7.5 percent was recognized in the 2005 valuation. Further, the three previous years' returns also had to be recognized (2.5, -7.3, and -7.4). As noted previously, VRS recently changed its investment rate of return assumption or discount rate from eight percent to 7.5 percent. This change has also had an immediate effect on the funded status of the system.

According to the schedule of funding progress in the 2005 valuation, VRS assets covered more than 70 percent of liabilities in all systems except VaLORS. However, VaLORS is a relatively new system which only began in 1999. It is not uncommon for a system new system to have a lower funded ratio. In addition, the VaLORS funded status improved from FY 2004 to FY 2005 during which time all other systems experienced a decline in funded status. The State employee funded status declined from 94.6 percent to 85.8 percent. Of greater concern, the teacher group, the largest plan, experienced a similar decline from 87.2 percent to 77.9 percent. Finally, the JRS declined from 78 percent to 71.6 percent funded.

As Pressures on the System Increase, Funding the Actuarially Calculated Contribution Rates Is Important

In general, one of the more useful measures with which to evaluate pension plan funding is not whether it is currently fully funded (100 percent), but whether the plan is on a schedule that can be reasonably expected to reach that goal. With this in mind, the effectiveness of the rates recommended by the actuary in achieving the desired funding levels is negatively impacted by decisions to contribute at less than the recommended rates. Also, the system's ability to address growing liabilities will be impaired by not funding at the actuarially calculated rates. In light of increasing pressures that an increase in the number of retirees will put on the system, it is important that the actuarially calculated rates are funded.

Under §51.1-145 of the *Code of Virginia*, the amount of the State's contribution shall be "based" on the contribution rates certified by the VRS Board of Trustees. Since 1992, the rates actuarially calculated and subsequently certified by the VRS Board of Trustees have rarely been fully funded. Figures 14 and 15 show the percentage of the VRS Board certified employer rates which were actually funded for the period of FY 1992 to FY 2005 for the State, Teacher, SPORS, JRS, and VaLORS groups. For example, as shown in Figure 14, the State employee and teacher rates were funded at the VRS Board certified rate only twice. Over the period from FY 1992 to FY 2005, VRS estimates that the State and teacher groups were underfunded by \$1.1 billion. JLARC staff estimates an additional shortfall of approximately \$242 million in the VaLORS, SPORS, and JRS for the period.

As required by the *Code of Virginia*, political subdivisions must pay the actuarially calculated rates for their VRS coverage. As a result, 100 percent of the certified rates were paid by the political subdivisions. A rate is calculated for each individual subdivision, and then the rates are banded. The funded status of each local system will vary, due to the length of the locality's participation in the system and deviation from assumed experience over time.

The VRS director noted that as long as the certified rates are funded, he does not foresee the increase in retirements adversely impacting the health of the system. However, he also noted that if the actuarially calculated rates are not funded, over time it will become increasingly more difficult for the Commonwealth to address system funding obligations.

Figure 14
Percentage of VRS Board Certified Employer Contribution Rates Actually Funded from State Appropriations (State Employees and Teachers)

Source: Virginia Retirement System.

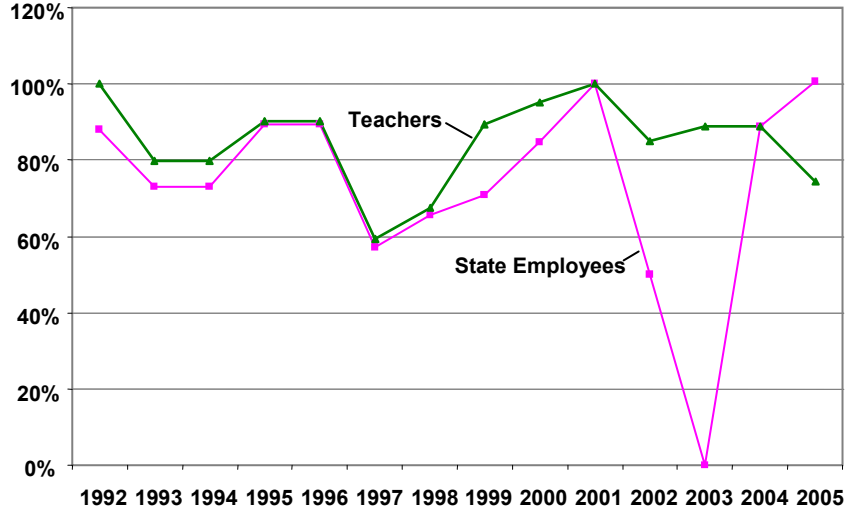
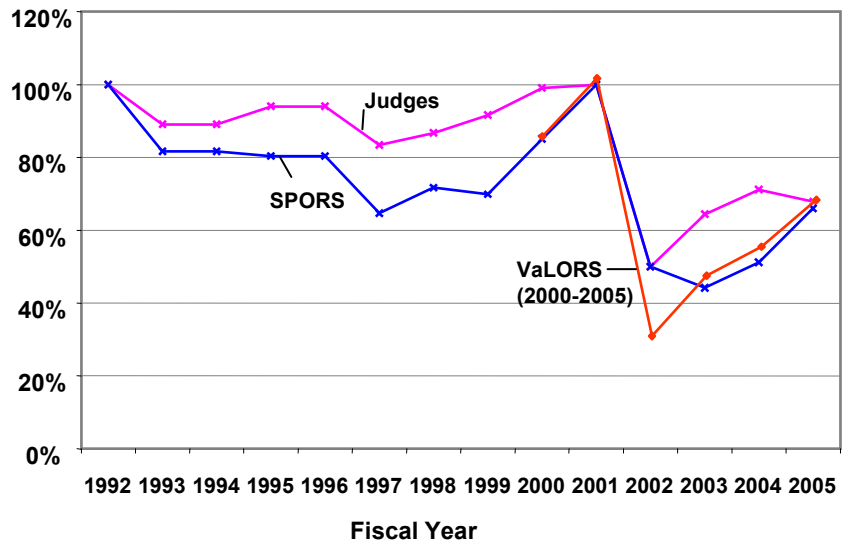


Figure 15
Percentage of VRS Board Certified Employer Contribution Rates Actually Funded from State Appropriations (JRS, SPORS, and VaLORS)

Source: Virginia Retirement System.



Incentives Change Employee Behavior and Place Increased Pressure on the Retirement System

While contributions are going to be a critical component to ensuring solvency of the fund, retirement incentive plans and enhanced retirement packages, if not well structured or developed with sound business reasons, can be harmful to both the State's workforce and the retirement system. For example, during the 1991 Session, the General Assembly enacted legislation establishing an early retirement incentive program for VRS members. This program, which was administered by VRS during 1991, provided eligible individuals with enhanced retirement benefits while also permitting an immediate reduction in personal services expenditures for the State. The enhanced benefits included cost-of-living-adjustments beginning at retirement, a supplemental benefit of \$100 per month until age 62, five years of added service credit, and no actuarial reduction for early retirement. A similar but somewhat less generous program to reduce the size of the State's workforce was launched in 1995 under the provisions of the Workforce Transition Act (WTA). In addition to the impacts of these two incentive plans, JLARC staff also found that changes to the eligibility requirements for retirement, such as reducing the retirement age from age 55 to 50, have an impact on employee behavior and retirement patterns.

The experience from the two incentive programs indicates that there are tradeoffs associated with an early retirement program. Personnel costs can be reduced, in the short-term, provided that a majority of the vacated positions are not filled and the remaining positions are refilled at a lower salary. However, savings from lower personnel costs could be possible to achieve within a few years even without an early retirement incentive program, since all early retirees would eventually retire under normal circumstances. Further, if the program is not managed properly and positions are refilled at a higher rate than expected, the Commonwealth may face additional replacement and other associated costs.

In addition, such programs can create actuarial losses for the pension system, particularly if the incentive program's provisions were not included in the benefit design or employed by the actuary during the actuarial valuation and rate setting process. The incentive programs can create large deviations from assumptions and thereby create additional and unforeseen liabilities. For example, as part of its oversight responsibility for the VRS, in 1995 JLARC staff reviewed the 1991 early retirement incentive program. At that time, staff found that long-term costs far exceeded short-term budget savings. The State budget savings in FY 2002 associated with the program was \$37.1 million. Consequently, the actuarial loss for State

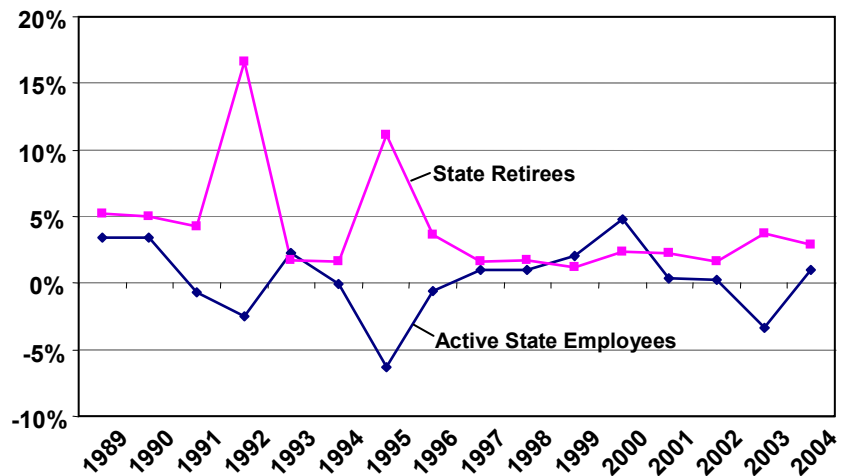
employees was \$238.2 million, and for teachers it was \$119 million.

Actuarial program costs could be amortized over an extended period of time, however. An analysis of the impact of the 1995 WTA conducted by the actuarial firm Watson Wyatt indicated that the unfunded liability for State employees increased by \$100.5 million and by \$24.5 million for the State Police plan. The State's payroll for State employees and the State Police was reduced by \$167.7 million. As a result of the changes caused by the implementation of the WTA to the actuarial liability and payroll, the actuarially calculated retirement contribution for State employees increased by \$11.3 million and by \$2.2 million for the State Police.

While overall long-term liabilities and short-term budget reduction in personnel costs were relatively similar, State budget savings were soon eroded by agency rehiring practices, including rehiring retired employees as higher-cost contractors. Figure 16 shows the annual percentage growth in number of retirees, which increased significantly in 1991 and 1992 as well as in 1995 and 1996. Figure 16 also shows the declines in the number of State workers during those periods.

Figure 16
Annual Percentage Growth in the Number of State Retirees and Active Employees

Source: Virginia Retirement System.



Health Insurance Credit Pre-Funding Will Address Future Liabilities

To address the cost of health care for its retirees, the Commonwealth has opted to provide a credit toward the cost of

health insurance coverage for eligible retirees. In order to receive the credit, retirees must have at least 15 years of total creditable service. The amount of the monthly health insurance credit for State employees is \$4 per year of creditable service, not to exceed a monthly maximum of \$120. The amount of the monthly benefit for teachers is \$2.50 for each year of service, not to exceed a monthly maximum of \$75. However, local school divisions may elect to provide an additional health insurance credit of \$1 per month for each full year of the retired teacher's creditable service, not to exceed a monthly credit of \$30. Local school divisions are responsible for providing the full cost of the optional portion of the credit for their teachers, but under the Standards of Quality the State reimburses the locality for a portion of this amount (roughly 40 percent). In addition, if the local government elects to participate, local government employees receive \$1.50 for each full year of qualified service, not to exceed \$45. The State does not make contributions toward the cost of the local government employees' health insurance credit. For all employees, the credit ends upon the member's death and cannot exceed the amount of the individual member's health insurance premium.

As discussed in Chapter 4, overall health care costs are rising at a rate that significantly outpaces inflation. In order to cover the cost of rising medical and prescription drug expenses, premiums for the State's health care plans have increased in recent years. For retirees, the increase in premiums has had a major impact, because the State does not make contributions toward the cost of premiums for retirees. In the case of early retirees, the impact has been more pronounced because they are not Medicare-eligible and therefore do not have the option to participate in Medicare coordinating and supplementary plans. For example, the total annual premium for single coverage in the FY 2006 for COVA Care Basic plan for early retirees and active employees is \$4,512. (Approximately 77 percent of the early retiree group elect single coverage and 46 percent of early retirees elect the Basic plan.)

An active employee in the State's COVA Care Basic plan with single coverage would be responsible for almost 10 percent of the \$4,512 premium or about \$432 annually. In contrast, the early retiree would be responsible for paying the full cost of the premium. In interviews with State agency and higher education human resources officers, many noted that the cost of health care, particularly retiree health care costs, is one of the biggest concerns among employees. Staff at VRS noted that the cost of retiree health care has been a major concern communicated to them by their retired members and active members approaching retirement eligibility. Chapter 4 discusses the premium structure for the early retiree and Medicare-eligible retirees in more detail.

Historically, the State has not pre-funded the plan, so there is not a large trust associated with the program. The funding policy for the retiree health insurance credit has been pay-as-you-go. Including the cost of pre-funding the benefit, the unfunded actuarial liability for the health insurance credit for the State, SPORS, VaLORS, and JRS systems is \$580.5 million, and the market value of assets is \$91.6 million. Similarly, the teachers have an unfunded liability of \$530.5 million and assets of \$53.2 million. The VRS actuary recommended a contribution rate for the 2006 – 2008 biennium of 1.76 percent of payroll for State, VaLORS, and JRS, and 0.98 percent for teachers. These rates reflect pre-funding the health insurance credit. The current estimated annual cost to pre-fund the benefit for the State, VaLORS, SPORS, and JRS systems will be approximately \$62.5 million. For the teachers, the current estimated annual cost will be \$57.2 million (approximately 60 percent of which is funded by localities).

Upcoming changes in the Governmental Accounting Standards Board (GASB) statements require that funds report liabilities associated with funding schedules that do not fully address the pre-funding of post-employment benefits. With respect to retiree health insurance credit, Virginia is in a better financial position than some other states because the benefits provided by the health insurance credit are primarily fixed and there is a definitive maximum payment per person. If the Commonwealth does not fully fund the pre-funded cost of the benefit, it will have to report the liability. The GASB requirements are discussed in Chapter 4.

The Commonwealth's Aging Workforce Impacts the Incidence of Disability

According to the VRS director, the impact of the aging State workforce will be manifested in the incidence of disabilities. The Virginia Sickness and Disability Program (VSDP), which was passed by the General Assembly and first introduced to State employees in 1999, is the Commonwealth's short- and long-term disability program. The previous disability retirement plan at VRS did not provide incentives to employees to return to work, and the system primarily applied to individuals whose condition was permanent. The objective of the program is to provide eligible employees supplemental or replacement income during periods of partial or total disability. The program design encourages rehabilitation. The VSDP's ultimate goal is to return the employee to gainful employment when he or she is medically able. In contrast, an employee may apply for disability retirement under VRS if he or she becomes unable to perform his or her job because of a physical or mental disability and the disability is likely to be permanent. State employees enrolled in the VSDP are not eligible for the VRS disability retirement program.

As of June 30, 2005, 67,567 employees were enrolled in VSDP. Members of JRS and employees of political subdivisions, including public school divisions, are not eligible for VSDP. The program also does not cover adjunct faculty. The program does not cover part-time and full-time teaching, research, and administrative faculty of Virginia colleges and universities who participate in the Optional Retirement Plan (ORP). Several other types of employees are excluded from participation. In general, these other employees are covered under an alternative retirement plan or flexible benefit plan offered by their agency.

Unlike traditional disability retirement, the VSDP long-term disability program has a strong return-to-work component, including vocational rehabilitation. In addition, once employees on long-term disability reach age 65, they must retire for service. Further, the long-term disability benefit is off-set by other earned income and by any Social Security disability benefits received.

According to data from Unum Provident, the State's third-party administrator for VSDP, workers nationally over the age of 40 have a lower incidence of work injuries, short-term disability, and unscheduled absences than employees under the age of 40. However, workers over the age of 40 experience greater time off from work when an injury or illness occurs. Nationwide, 78 percent of Unum Provident long-term disability cases are over the age of 40, and 37 percent of these claims are in the 50 to 59 age group. According to staff at VRS, after undergoing 6 months of short-term disability, most people come off long-term disability after an additional 6 to 12 months.

In examining Virginia's experience, particularly when compared to comparable employers and other companies that Unum covers, the average age of Virginia's State employees is 45, older than the Department of Labor's median age of 40 for all industry sectors. As a result, the State experiences generally more disability claims than other employers. The majority of employees fall into the 40 to 59 age range, so it is not surprising that the majority of long-term disability claims appear in these categories (Figure 17). Similarly, employees with 20 or more years of service represent 49 percent of long-term disability claims. The patterns are similar with respect to short-term disability. Employees 40 years of age or more represent 66 percent of short-term disability claims (Figure 18). Other public employers, as shown in figures 17 and 18, include counties, cities, towns, and commissions.

Figure 17
Percentage of Employees on Long Term Disability (State, Other Public Employers, and Private Companies Covered by Unum)

Source: Virginia Retirement System.

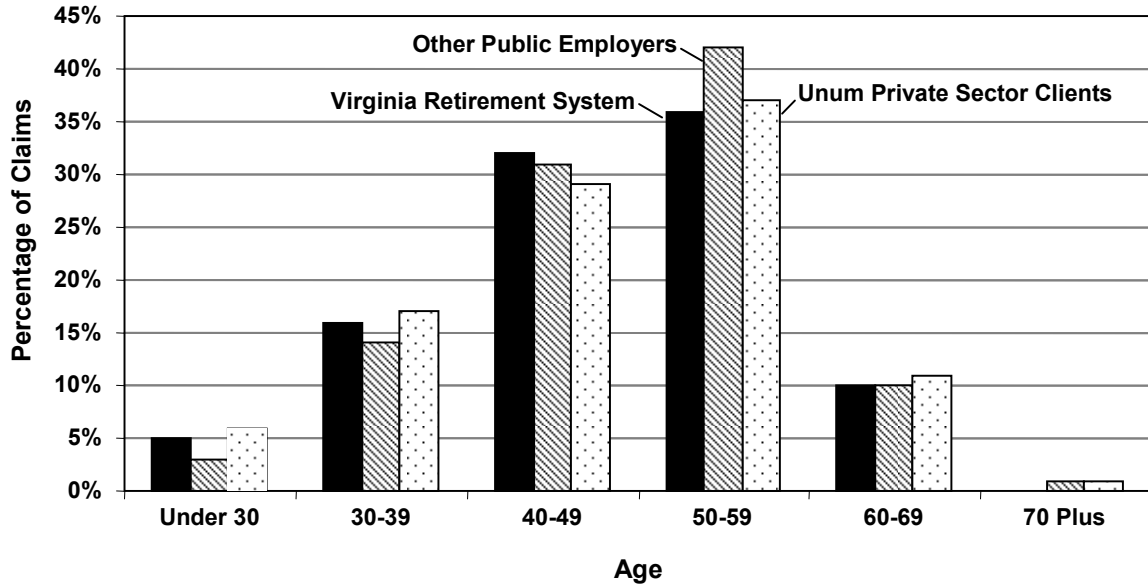
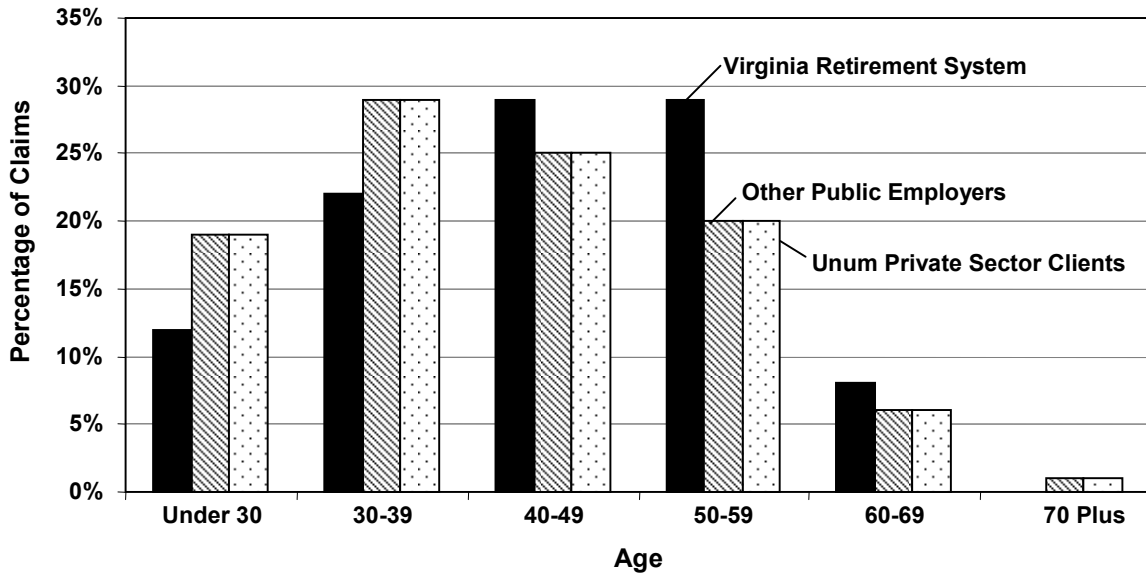


Figure 18
Percentage of Employees on Short Term Disability (State, Other Public Employers, and Private Companies Covered by Unum)

Source: Virginia Retirement System.



As of June 30, 2005, approximately 75 percent of eligible employees were covered by VSDP, and the percentage will move closer to 100 percent over time, because the program is mandatory for new members. Employees remaining in the previous sick leave program are eligible to apply for disability retirement under VRS. Prior to the implementation of the VSDP, an average of 566 State employees retired each year under the VRS disability retirement program. After VSDP, the average annual number of State disability retirements reduced to 334 per year, or a 41-percent decline in disability retirements. In FY 2005, the number of State disability retirements had declined to 104. While traditional VRS disability retirements have declined, the number of employees on long-term disability under VSDP has been growing since the inception of the program in 1999. As of June 30, 2000, 279 employees were receiving long-term disability benefits. By June 30, 2005, 1,672 employees were receiving benefits. Only 39,501 employees were covered under VSDP in 2000, but by June 30, 2005, the number of covered employees had grown to 67,657.

A second open enrollment period for VSDP took place in the fall of 2002. During that open enrollment period, all State employees were enrolled in VSDP unless they opted out of the program. State employees who enrolled in VSDP during the second open enrollment period in 2002 had declined to participate in the program in 1999. In 2002, some of these employees might have enrolled in VSDP because they anticipated future need for the program's benefits. As a result of the open enrollment process, the number of employees covered under VSDP increased from 47,499 in FY 2002 to 62,280 in FY 2003, and the number of employees on long-term disability sharply increased from 688 on June 30, 2003 to 1,355 on June 30, 2004. Of the approximately 15,000 employees who enrolled during the second open enrollment period, 352 later applied for and received long-term disability benefits. These employees represent about 52 percent of the increase in long-term disability cases.

Funding of the program is based on a percentage of the total eligible payroll, regardless of an individual employee's participation in VSDP. All other things being equal, as long as the membership in VSDP continues to increase, the rate applied to eligible payroll will continue to increase. Including the cost of pre-funding the benefit, the VSDP plan is 94-percent funded with \$153.6 million in liabilities and \$144.2 million in assets (market value). In addition to the disability component of VSDP, the cost of the long-term care benefit is included in the actuarially calculated contribution rate. The plan's funded ratio of 94 percent is an improvement over the 2001 and 2003 valuations. The VRS actuary recommended a blended contribution rate for the 2006 – 2008 biennium of 2.16 percent of

payroll for the State, VaLORS, and SPORS systems. These rates reflect pre-funding the long-term disability benefit. The current annual cost to pre-fund the benefit for State employees over the 2006 - 2008 biennium is approximately \$53 million.

Additional Technology Resources Will Likely Be Required at VRS

The increase in the number of active members and retirees and the consequent increase in workload create pressure on the VRS services and infrastructure. VRS also administers a variety of other benefit programs, including the traditional VRS disability program, group life, optional life, the health insurance credit, health premium deductions, VSDP, the employer-sponsored long-term care program, Deferred Compensation Plan and the associated cash match program, the optional retirement plan for political appointees, higher education, and school superintendents, and the Virginia Supplemental Retirement Plan. These supplemental programs are also growing in size and add to the overall complexity of administration at the VRS. However, currently much of benefit processing at VRS is handled manually. Retirement processing can take about 90 days to complete, because employee records often need to be manually researched and verified to ensure that appropriate service credit is applied.

In order to meet these demands, VRS will need to migrate away from manual processing and invest in technology infrastructure. In addition, VRS will need to provide more self-service to its members through its web site. According to the VRS director, many of the information systems at VRS are more than 20 years old. VRS is currently in the process of replacing its general ledger system and working to improve its telephony. There are many other areas in which automation will likely help to improve current service delivery, and keep pace with steady increases in active members and retirees. Overall, VRS is beginning to explore this issue, but has not developed a complete needs assessment. In the next 12 to 24 months, VRS plans to develop a comprehensive list of requirements. VRS will also need to develop a capital budget and an accompanying long-range plan.

Use of improved technology may also stem the growth in the number of classified employees at VRS. Classified employees at VRS have increased from 117 in FY 1994 to 222 in FY 2004, or an almost 90-percent increase in ten years. Over this same period, there was a 28-percent increase in the total number of active and retired members. However, the number

of retirements processed annually has increased from 4,043 in FY 1994 to 8,317 in FY 2005, or an increase of 106 percent.

The Impact of the Aging State Workforce on Health Care Costs

In Summary...

Health care is a key element of the State's benefits package, and has been cited as an important recruitment and retention tool. As a result, the State has long provided a comprehensive health benefits package to its employees and retirees. However, health care costs nationally, and in Virginia, continue to rise at rates that far outpace inflation. The State's workforce is aging, which serves to further increase overall costs for the State health care plan. However, the State has taken steps to control costs and engage plan participants as more conscientious consumers. In addition, the implementation of Medicare Part D will likely decrease premiums for retirees in the State's Medicare-coordinating health care plans. Lastly, new accounting rules will change how the State reports liabilities associated with the early retiree health care plan and several other of its post-employment benefit programs.

Health care is an important benefit for employees and retirees alike. In interviews with human resources personnel at State agencies, colleges, and universities, staff indicated that the cost of health care was one of the primary issues facing its aging workforce. Human resources officers noted that for many, the decision on when to retire was based upon retiree health care costs. As it is likely that the upward trend for health care costs will continue, such concerns appear valid.

This chapter primarily focuses on the Commonwealth's health benefits plans for active employees and retirees and examines the role that an aging workforce plays in driving these costs. In addition, the chapter addresses the implementation of the new Medicare Part D program, but the discussion is limited to its impact on the State's employee and retiree health care plan itself and plan participants. The chapter also provides an overview of the steps that the Department of Human Resource Management (DHRM) has taken to maintain plan costs by restructuring and cost shifting. Finally, the chapter discusses how new accounting standards will impact financial reporting for not only the State's retiree health benefits plan, but also other post-employment benefits.

Health Insurance Program Costs Continue to Rise

The State's health care program is self-insured. A third-party administrator, Anthem Blue Cross Blue Shield, provides billing and other support for the program. Dental, mental health services and prescription drugs are also handled by separate third-party providers. The Commonwealth's health insurance program consists of a plan for active employees and early retirees and Medicare-coordinating health benefits plans for those eligible retirees who are 65 years of age or more.

COVA Care is the plan for active employees and early retirees. COVA Care includes a Basic plan as well as a number of expanded options that employees can select to add on to their Basic plan. The expanded options for COVA Care include out-of-network, dental, out-of-network and dental, vision, hearing and dental, and an option that provides all of the expanded benefits. Medicare-coordinating plans include Advantage 65, Advantage 65 with Dental/Vision, Medicare Complementary (Option I), Medicare Supplemental (Option II) and Option II with Dental/Vision. The Advantage 65 plans are offered to all eligible State retirees, survivors, and family members, while Option I and Option II plans are closed to new enrollment. For active employees, both the employer and the employee pay a portion of the monthly premium. In contrast, the non-Medicare eligible retiree group or early retirees (retirees who are eligible for the program who have not reached full Social Security retirement age) pay the entire cost of the premiums without an employer share.

As of September 30, 2005, the Commonwealth's COVA Care and Medicare-coordinating plans covered 128,246 enrollees. This includes active employees, early retirees, and retirees in the Medicare-coordinating plans. Medicare-coordinating plans cover 26,225 retirees. Total COVA Care employee and early retiree enrollment is 102,021. Figure 19 shows the percentage of membership by age in the State's active and early retiree health plan. The early retirees constitute approximately nine percent of the COVA Care plan. A small portion of retirees and employees are enrolled in Extended Coverage or COBRA.

While the cost of health care continues to trend upward, the implementation of COVA Care in FY 2004 slowed the percentage increase in growth.

As shown in Figure 20, the average annual cost of providing health care coverage per employee rose 34 percent between FY 2000 and FY 2004. While the cost of health care continues to trend upward, the implementation of COVA Care in FY 2004 slowed the percentage increase in growth.

DHRM estimates that, on average, the State pays 88 percent of the cost for State active employee health care premiums, while active employees pay approximately 12 percent. Taking into account the cost of deductibles, co-pays, and co-

insurance, DHRM estimates that the State pays approximately 80 percent of the cost of active employee health care. Health care premiums have steadily increased over time and constitute a significant portion of an employee's total compensation, particularly if the employee selects family coverage. For example, the average State employee earns \$36,945. The employer share of the COVA Care Basic premium for single coverage is \$4,080 or 11 percent of average salary. In contrast, the State's portion of the premium for family coverage, \$10,668, would constitute almost 29 percent of the average

Figure 19
FY 2004 State Health Care Plan Members by Age

Source: JLARC staff analysis of DHRM data.

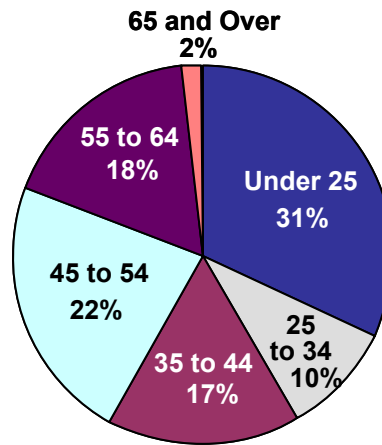
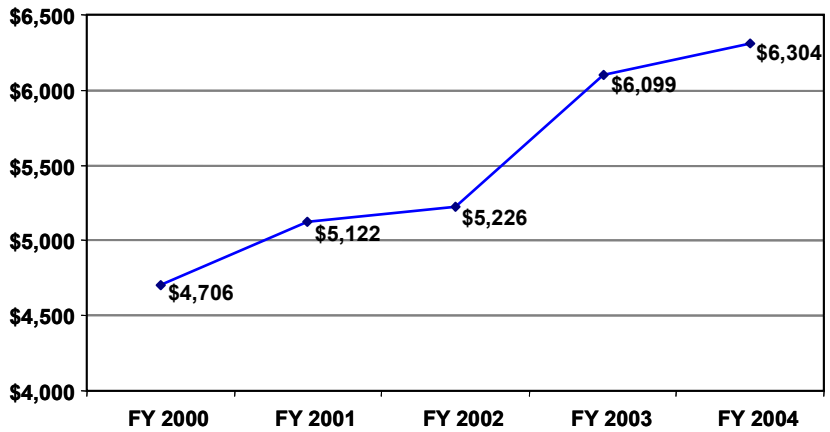


Figure 20
Average Annual Health Insurance Cost Per Employee

Source: DHRM.



employee's salary. In these examples, the active employee would pay premiums in the annual amounts of \$432 for single coverage and \$1,524 for family coverage.

In contrast, there is no employer portion of the premium for retiree health care. As a result, the early retiree (who is not Medicare eligible) in the COVA Care plan would pay \$4,512 per year for single coverage and \$12,192 for family coverage. Medicare-eligible retirees pay an annual premium of \$3,516 for single coverage the Basic Advantage 65 benefit. While the Commonwealth does not provide an employer share of the premium for its retirees, it does provide a health insurance credit to eligible employees based on \$4 for each year of service, up to a monthly maximum of \$120, which is applied to the cost of health care coverage.

The three-tiered drug program under COVA Care lowered costs per prescription and helped to curtail growth in the number of prescriptions per member for the Commonwealth's program.

Over the past decade or more, increases nationally in the cost of outpatient prescription drugs have outpaced inflation and increases in other medical costs. Figure 21 shows the growth in prescription drug benefit expenses from FY 1997 to FY 2004. From FY 2000 through FY 2004, the total prescription drug expense increased from \$66.9 million to \$94.5 million, an increase of 41 percent. Largely as a result of COVA Care's three-tiered plan, prescription drug expenses declined 10 percent from FY 2003 to FY 2004. The three-tiered drug program under COVA Care lowered costs per prescription and helped to curtail growth in the number of prescriptions per member for the Commonwealth's program. As prescription drugs constituted 18 percent of total medical and pharmacy expenditures in FY 2004, they serve as a major driver in the overall cost of providing health care. The implementation of the COVA Care plan in FY 2004, which will be discussed in more detail later in this chapter, served to address the increases in outpatient prescription drug expenses as well as control other costs.

Medical Claims Costs Are Also Increasing

During FY 2004, the number of medical claims in the State health insurance program increased by 14 percent over the year before (from 2.6 to 3 million claims). In addition, from FY 2000 to FY 2004, the average inpatient facility or cost per hospital day increased from \$1,982 to \$2,649, or an increase of 33 percent. Similarly, the increase over the same period in the average cost per outpatient facility visit was 31 percent. A greater number of catastrophic claims, combined with more enrollees and higher claims costs in FY 2004, resulted in an eight-percent increase in total medical claims expense over FY 2003. Figure 22 depicts total medical claims by type of service.

Figure 21
Prescription Drug Benefit Expense, FY 1997 to FY 2004

Source: DHRM.

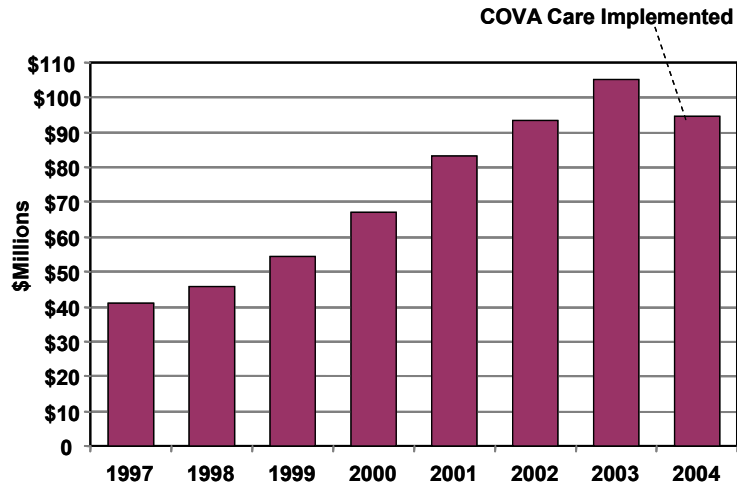
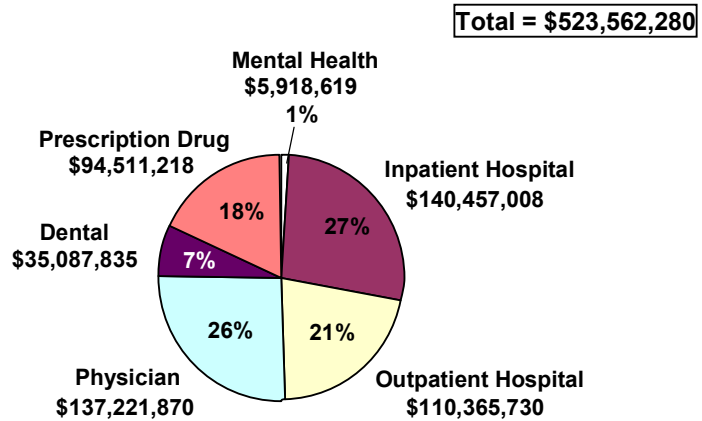


Figure 22
Medical Claims by Type of Service, FY 2004

Source: JLARC staff analysis of DHRM data.



Age Is a Key Factor in the Cost of Coverage for the COVA Care Plan

Due largely to an aging workforce, the Commonwealth's average medical cost per member remains higher than comparable costs for other Anthem plans. The average age of participants in the COVA Care Plan in FY 2004 was 47.3, which is considerably higher than the average age of other Anthem participants (43.5). As a result, as shown in Figure 23, the average State COVA Care medical costs per member are higher than other Anthem participants. Despite the implementation of COVA Care and its three-tiered drug plan, the average cost

Comparison of COVA Care and Other Anthem Plans

In order to examine the impact of age on the State's health care plan, JLARC staff reviewed data compiled by Anthem for DHRM comparing the COVA Care plan to other plans administered by the State's third-party administrator, Anthem. Several indicators were compared including inpatient expenditures, prescription drug expenditures, and expenses per hospital day. JLARC staff also reviewed plan expenses by age category. In addition to reviewing the data by age group, JLARC staff also reviewed data provided by DHRM on the impact of lifestyle-related disorders on plan costs.

per prescription is higher for COVA Care than the cost for other Anthem employer group plans. In terms of inpatient facility costs, the average cost per hospital day has risen steadily since 2000, and is higher in the COVA Care plan than other Anthem employer group plans. DHRM attributes the increase in inpatient facility costs to an older employee population, admissions for more serious illnesses, and a growth in high cost catastrophic claims. DHRM reviews these data and seeks cost avoidance strategies or other ways to reduce these costs. The strategies currently employed by DHRM through Anthem, including disease management and wellness programs, are discussed in more detail later in this chapter.

In addition to comparing the State's plan with all other Anthem plans, an analysis of expenditures by age strata indicates higher costs as participants age. For example, as shown in Figure 24, those participants less than 25 years of age had an average of \$1,098 in expenses per year, while those 65 years of age or older had an average of \$7,234 in annual expenses. Similarly, Figure 25 shows that while members 44 years of age or younger constitute 58.2 percent of the COVA Care Plan's total membership, they represent only 35.3 percent of claims in FY 2004. Members 45 and older constitute 41.9 percent of total membership, but account for 64.8 percent of claims. Similarly, Figure 26 shows total claims by age category for FY 2003 and FY 2004 with claims for the 45 to 64 year categories making up 40 percent of the membership, but constituting 60 percent of all claims dollars expended.

Another factor identified by DHRM as a cost driver in the health care plan is the prevalence of lifestyle-related disorders. In the current plan structure as defined by DHRM in coordination with Anthem, these include heart disease, cerebrovascular disease, disc and back pain, diabetes, hypertension, accidental injury, obesity, respiratory disease, and colon/rectal cancer. Lifestyle-related disorders make up 37 percent of inpatient expenses for FY 2003. While early retirees constitute ten percent of the COVA Care plan, their lifestyle-related disorders account for 39 percent of total medical expense. In contrast, for active employees, lifestyle-related medical expense is 28 percent of their medical costs. Some of the conditions included among those considered to be life-style-related disorders may have hereditary causes. However, many of the disease management plans and programs developed to address these conditions deal with the aspects that can be improved by changes in behavior. For example, the disease management program would help diabetics manage their condition by encouraging them to exercise, maintain a healthy diet and weight, and monitor their blood sugar levels whether their diabetes was Type I or Type II, which is generally lifestyle-related.

Figure 23
Average Medical Cost Per Member

Source: JLARC staff analysis of DHRM data.

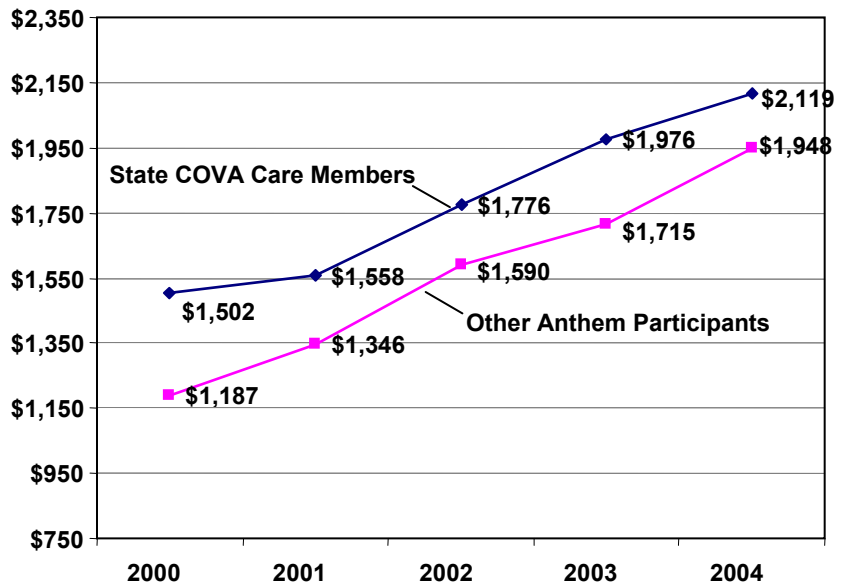


Figure 24
Average Health Care Expense Per Member by Employee Age Group, FY 2003 and FY 2004

Source: JLARC staff analysis of DHRM data.

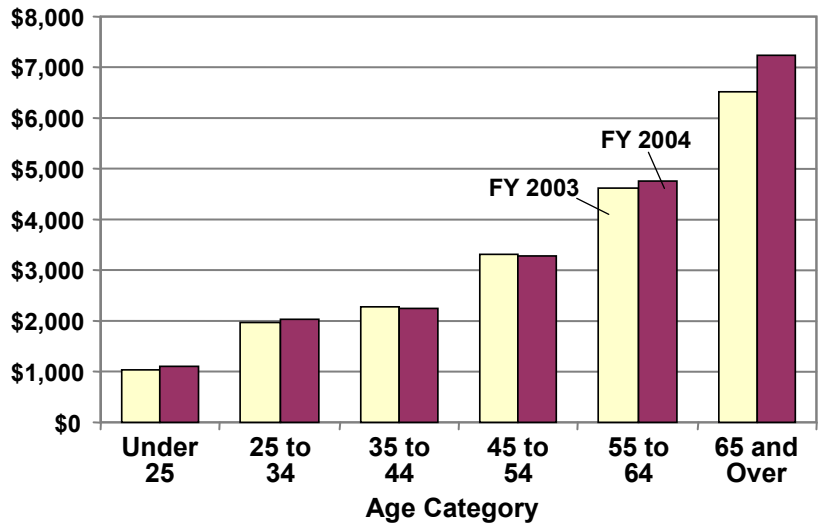


Figure 25
Percentage of Health Care Program Claims by Age Category, FY 2004

Source: JLARC staff analysis of DHRM data.

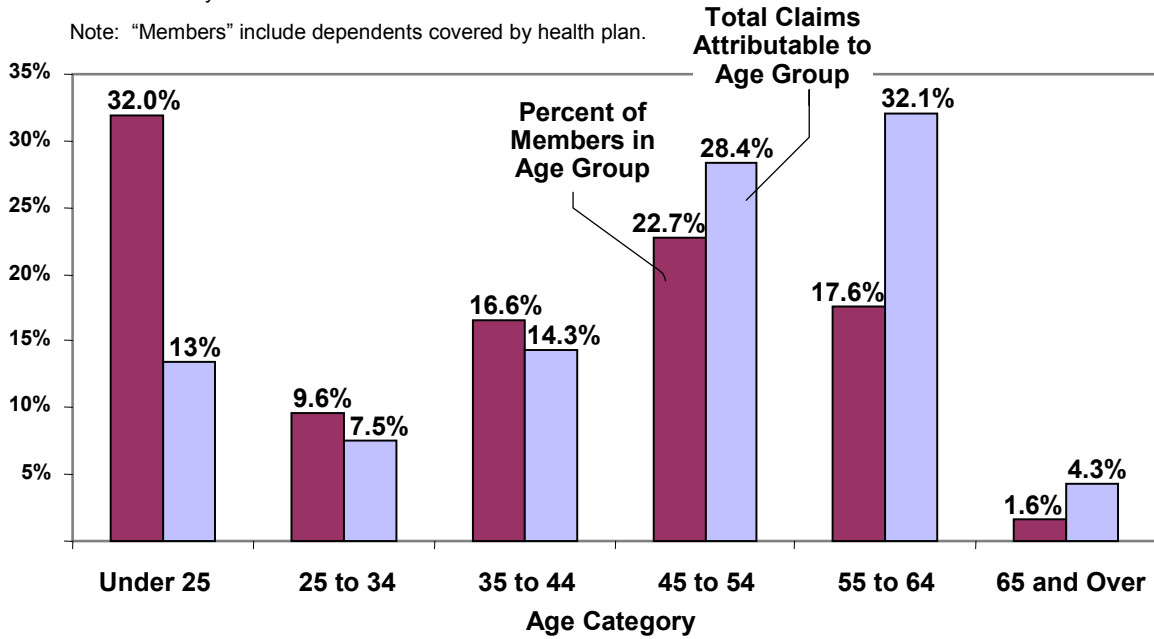
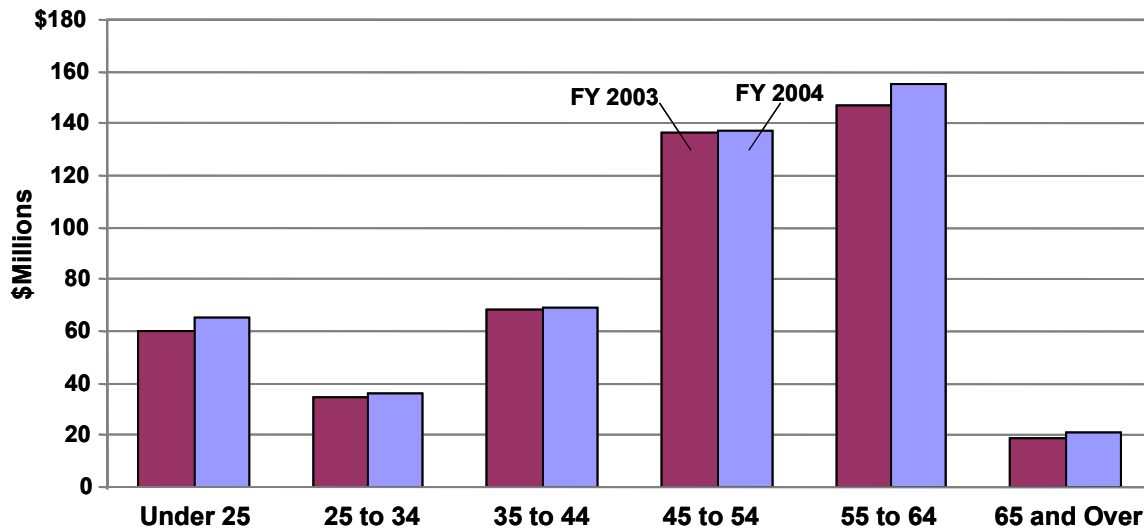


Figure 26
Cost of State Health Benefits Program Claims by Age Category, FY 2003 and FY 2004

Source: JLARC staff analysis of DHRM data.



Costs of Early Retiree Benefits Are Offset by Active Employees

Data on active members compared to early retirees in the health care program indicate that costs related to early retirees are considerably higher. Costs for early retirees are higher because members of the early retiree group in the COVA Care

Data on active members compared to early retirees in the health care program indicates that the early retirees are considerably more expensive.

plan must be at least age 50 and because age is a major driver in the cost of health care, expenses for the early retiree group exceed those for the active employees. While DHRM indicated that this is a concern, staff noted that in terms of cost controls it is not looking at the retiree group any differently than their entire population. DHRM staff explained costs are about twice as much for the retiree group as for the active population because the retiree group is older and some early retirees are in poor health or have chronic health conditions. Unlike the early retiree group, the active employee cohort includes both younger and older participants. When older and younger participants are combined into one pool, the less expensive younger members reduce overall active plan costs.

In developing premiums, as noted previously, the active employees are pooled with the early retiree group. According to the DHRM staff, this is a common practice, particularly in the public sector. While the State does not directly contribute monies toward retirees' health insurance premiums, as a result of this pooling methodology, the retirees' premiums are subsidized by the State and the active employees. DHRM blends retirees with active members to set health insurance premiums for all participants who are not Medicare eligible, rather than determining separate premiums for active members and early retirees. For eligible retirees, the Commonwealth does not provide an employer share of the premium, but it provides a health insurance credit, which is applied to the cost of health care coverage. Assuming that an early retiree was eligible for the maximum health insurance credit and he or she selected single Basic coverage, the retiree would need to self-finance at least 68 percent of premium costs.

According to DHRM, if the early retirees were rated separately from the active employees, the early retiree premiums would be about 2.5 times higher than the pooled rate.

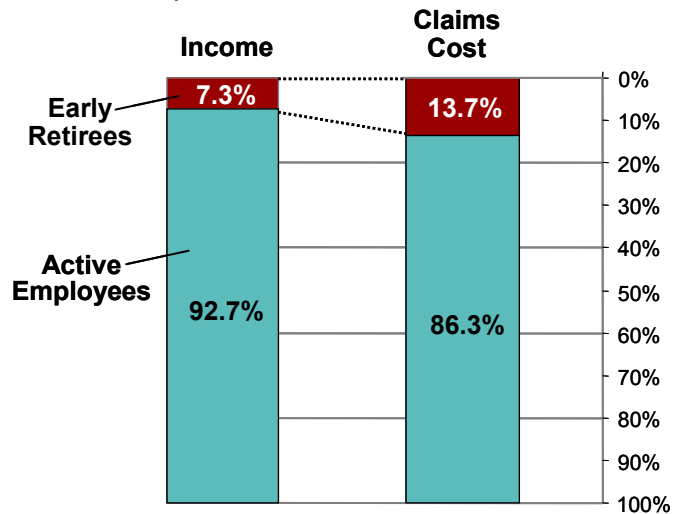
According to DHRM, if the early retirees were rated separately from the active employees, the early retiree premiums would be about 2.5 times higher than the pooled rate. If early retirees were removed from the active pool, DHRM estimates that the active premiums would be reduced by only about ten percent. Figure 27 shows the income from early retiree and active premiums compared to expenses. As illustrated, the early retirees' costs exceed the premiums collected. Essentially, the active employees along with the State are subsidizing the early retirees. However, the current group of early retirees had essentially been subsidizing the early retiree group while they were active employees. New accounting rules from the Governmental Accounting Standards Board (GASB) will require the Commonwealth to report the liability associated with the pooled rate. A more detailed discussion concerning GASB changes is presented later in this chapter.

Medicare-Coordinating Plans Receive No Employer Contribution for Premiums and Premium Costs Are Driven by Prescription Drug Costs

The Commonwealth’s health benefits include five plans that coordinate with the federal Medicare program. The Advantage 65 plans (Advantage 65 and Advantage 65 with Dental/Vision) are offered to all eligible State retirees, survivors, and family members, while Option I and Option II plans are closed to new enrollment. These plans supplement Medicare Part A coverage for hospital and skilled nursing care, and portions of the Medicare Part B coverage for physician services and home

**Figure 27
Claims Cost and Income for Active Employees and Early Retirees, FY 2004**

Source: JLARC staff analysis of DHRM data.



health care. Coverage is also provided under the supplemental plans for outpatient prescription drugs, either through pharmacy or medical benefits. In addition, the State’s Medicare-coordinating plans provide optional dental and vision coverage.

When retirees reaches full Social Security retirement age, they have to leave the COVA Care plan and enter into a Medicare-coordinating plan. If an employee is 65 or older and still an active employee, he or she can stay in the active health care plan regardless of age. Like the early retiree plan, there is no employer contribution toward the Medicare-coordinating plan premiums. However, if eligible, the retiree health insurance credit (maximum \$120 per month for eligible retirees) may be applied to the retiree’s cost of the Medicare-coordinating plans and other Medicare premiums. In addition, since the State’s Medicare-coordinating plans are experience rated on their

own, or their premiums are calculated independently of other groups, and the full premium cost is covered by the retiree, the plans will not be impacted by the implementation of the new GASB reporting rules for other post-employment benefits.

Medicare Part A applies to persons 65 and older and is provided to enrollees at no cost as long as they are covered by Social Security. Unlike Part A, Medicare Part B is an optional plan that must be elected by the participant and serves as a supplement to Part A. In 2005, the Medicare Part B supplement cost \$78.20 per month. In order to get the full benefit of the State's Medicare-coordinating plans, individuals have to elect Part B, because the DHRM-administered coordinating plans will only cover the excess of what would have been covered had the participant elected Part B. Exhibit 1 provides a more detailed explanation of Medicare Parts A and B.

Exhibit 1 Overview of Medicare Part A and Medicare Part B

Medicare Part A

Coverage: Helps to cover inpatient care in hospitals, including critical access hospitals, and skilled nursing facilities (not unskilled long-term care). Also covers hospice care and some home health care.

Cost: Most participants do not pay a monthly premium for Medicare Part A because they or a spouse paid Medicare taxes while they were working.

Medicare Part B:

Coverage: Helps to cover doctors' services, outpatient hospital care, and some other medical services that Medicare Part A does not cover, such as some of the services of physical and occupational therapists and some home health care. Helps pay for these covered services and supplies when they are medically necessary. Also covers some preventive services.

Cost: Most participants pay the 2005 monthly premium of \$78.20 for Medicare Part B. However, the cost will go up ten percent for each full 12-month period that one could have had Part B but did not sign up for it, except in special cases. One might have to pay this extra amount as long as one has Part B. One also pays a \$110 Part B deductible each year before Medicare starts to pay its share.

As health care costs have risen nationally, so have the costs to regional and local providers for Medicare coordinating plans. The cost to the State program for inpatient facility services and prescription drugs continues to increase, with prescription drugs representing approximately 63 percent of the overall retiree premiums for the Commonwealth's plans in FY 2004. As Parts A and B do not cover prescription drugs, one of the main functions of the coordinating plans, such as Ad-

vantage 65 offered by DHRM, is to cover prescription drugs. In the State's coordinating plans, DHRM reports that \$185 out of the \$293 monthly premium for single coverage in Advantage 65 goes toward prescription drugs.

From FY 2003 to FY 2004, total prescription drug expenses under the Medicare-coordinating prescription drug program experienced a 27.5-percent increase, and the prescription drug expense per retiree group member rose more than 23 percent. The retiree group members continue to purchase higher drug quantities, averaging 20.05 prescriptions per member. From FY 2003 to FY 2004, the cost per prescription for the plan increased from \$57 to \$64 or an increase of twelve percent. Until Medicare Part D goes into effect on January 1, 2006, the Medicare retiree group will bear the full cost of its prescription drugs, since prescription drugs are not currently covered under Medicare. However, once Medicare Part D becomes effective, drugs will be covered under Medicare and overall Medicare supplementary plan premiums will decrease.

Medicare Part D Implementation Will Impact Medicare Coordinating Plan Structure, Costs, and Plan Participants

Currently, the State offers Medicare-coordinating coverage, including drug coverage and optional dental and vision coverage to eligible retirees and their dependents. The retirees pay the full cost of the premiums for this coverage, but for eligible retirees the cost can be reduced by the health insurance credit. Since State retiree group participants pay the full cost of premiums for their health plan coverage, and since DHRM reports that prescription drugs represent approximately 63 percent or \$185 per month in 2005 of the premium, applying the value of Medicare Part D to the State program should serve to reduce the amount of the premium for Medicare supplemental coverage significantly. Medicare Part D will go into effect on January 1, 2006.

In order to make an informed decision, retirees will need to consider out-of-pocket expenses associated with the various plan choices including premiums, co-payments, co-insurance and deductibles. Medicare is providing information via the web as well as by phone. However, retirees will be turning to DHRM for information concerning Part D, not only with respect to the State's plans, but also for questions concerning the overall implementation of and choices related to Part D. In preparing for the implementation of Part D, educating participants and other communication efforts will not only be critical, but also labor-intensive and costly. Medicare Part D is complicated, and many retirees may find that making choices concerning their drug benefits and coordinating plans will be difficult. DHRM distributed materials to participants on October

25, 2005, and is scheduled to host statewide meetings during the first two weeks of November. In addition, the State's third-party administrator for prescription drugs has set up an 800 telephone number for questions, and the third-party-administrator's web site will have specific drug coverage information. VRS is also responding to retiree questions and processing applications for Part D coverage changes.

Health Insurance Fund Lacks Reserves

As noted previously, the State has a self-insured health benefits program. This means that there is no insurance company to protect the State from risk. With a large population and historical expenditure data, it is generally possible for DHRM to predict costs. Essentially, the premiums associated with the plan are based on trends and experience. DHRM depends on its vendors and its actuary to perform much of the premium analyses. Typically, DHRM projects costs for 23 months in advance. The fund is structured such that established premiums should cover the plan costs.

Premiums go into a dedicated health insurance fund (a fund that is segregated from other funds). There are two dedicated health insurance funds, one for the active employee and early retiree premiums and one for the premiums of the Medicare coordinating plans. The State Treasury invests the fund's assets and some interest is accrued on the fund. If annual income from premiums exceeds costs, the funds go into a reserve account. Previously, the funds for active and early retirees as well as the Medicare-coordinating plans had reserves, but those have been used. However, there is usually an IBNR (incurred but not reported expenses) that provides some cushion for a couple months. Program losses may be paid by using reserves or by an increase in future premiums. If there were a situation in which insufficient funds were available to pay a claim, the fund may borrow from the Treasury, but would have to pay interest on the loan.

As a result of the depletion in the reserve funds, the State Health Care Plan is now essentially run on a pay-as-you-go basis.

In prior years, premium holidays were given, which quickly reduced any reserve funds. In addition, in earlier periods premiums were set during the budget process approximately 5 percent lower than required, because reserves were available and were thought sufficient to offset the reduction in premiums. As a result of the depletion in the reserve funds, the plan is now essentially run on a pay-as-you-go basis. The Medicare-coordinating plans are now also generally under a pay-as-you-go system.

Private self-insurance plans are subject to federal oversight under the Employee Retirement Income Security Act of 1974 (ERISA). Self-insured public plans are not considered insur-

ance companies and are not covered under ERISA. As a result, ERISA does not contain specific solvency standards or reserve requirements for employee health plans. Therefore, §2-2818 of the *Code of Virginia*, which sets forth the provisions of the State's self-insured COVA Care plan, does not specifically require the maintenance of reserves. While there is no State or federal statutory requirement for maintaining reserves for contingency or expenses incurred but not paid, standard insurance industry and accounting practice and most well-managed self-insured plans book reserves to protect the program from running into a deficit situation. For example, maintaining sufficient reserves to cover two months of claims is reasonable.

The plans have a history of maintaining some reserves. In recent years, however, as health care costs have escalated, the funds' reserves have been depleted. In addition, premium holidays and the practice of offsetting premiums in future years with reserves served to further erode any remaining reserves. Some reserves are beneficial, because deficits can occur. For example, claims in the COVA Care plan exceeded premiums in FY 2003 and FY 2004. DHRM was able to cover these deficits with IBNR. However, unanticipated catastrophic events can significantly increase costs and cause deficits beyond the cushion provided with IBNR. For example, in the event of an epidemic, such as of avian flu, claims will increase beyond what any prior trend analyses would have predicted. In order to ensure plan stability, when adequate State resources are available, reserve funds should be maintained rather than depleted by lower premiums.

Recent Restructuring of the State's Health Plan Resulted in Cost Containment and Cost Shifting

In FY 2004, the former Key Advantage and Cost Alliance health plans were merged into the single statewide self-insured COVA Care health plan. The new plan was part of an effort to better control rising health care costs for State employees at a time when the Commonwealth was facing a variety of budgetary issues. A loss of revenue due to higher plan costs, coupled with other significant State budget and fiscal challenges, led DHRM to re-evaluate the balance between plan premiums and out-of-pocket expenses and implement a new plan and structure. In establishing the COVA Care plan, the steps taken to reduce higher costs included merging the former Key Advantage and Cost Alliance into one plan, adding an annual deductible for certain covered services, emphasizing preventative care, and introducing a three-tier prescription drug program. The plan design for COVA Care also has a new cost-shifting deductible and co-insurance component.

In addition to reducing the costs of plan administration, the Key Advantage and Cost Alliance plans were merged into a single plan to control the rising costs in the Cost Alliance Plan, which were exceeding premiums collected. Cost Alliance was originally established as a no-premium HMO plan for employees and structured to operate on the same employer contribution as Key Advantage. It was designed to provide an attractive “no cost” option to employees earning lower salaries, but was available to all employees. For a relatively small premium, employees could add dental coverage to their Cost Alliance plan. (The Key Advantage Plan included dental coverage as part of the basic premium and benefit.) Over time, new coverage and benefits were added to the Cost Alliance plan. Since there was generally no employee contribution toward the premium, and as a result of increased coverage and mandates, the plan was no longer sustainable on the employer premiums being collected, which had been roughly the same as those in the Key Advantage plan. In addition, DHRM found that the plan was not serving those for whom it was intended to provide relief. In general, lower income employees were not electing the plan. Further, over time more employees migrated into the Cost Alliance Plan. For example, in FY 1999 there were 5,876 enrollees and in FY 2003, the last year of the plan, there were 16,914.

To account for the loss of a premium-free plan, in the new restructured COVA Care plan, which replaced Key Advantage and Cost Alliance, premiums are paid by all employees. DHRM recognized that the increases in premiums could potentially be a hardship for some of its enrollees. As a result, DHRM increased premiums for single coverage but reduced premiums for employee plus one and family coverage. While claims exceeded expenses in FY 2004, the deficit was very close to FY 2003 levels.

Under the former Key Advantage and Cost Alliance plans, an employee paid a \$17 co-payment for prescription drugs regardless of the actual cost of the drug. Accordingly, there was little incentive for the employee to utilize lower cost alternatives to high-cost therapies. To address this issue, DHRM proposed implementing a tiered prescription drug co-payment system. Tiered co-payments were already being used in many private sector plans. In tiered prescription co-payment structures, the first tier is generally reserved for the least expensive drugs, usually generics. However, if the generic cost is less than the co-payment, then the employee would only pay the actual cost of the generic drug. The second tier is generally low to mid-cost brand-name drugs and some generics. The third tier is for higher cost brand-name drugs.

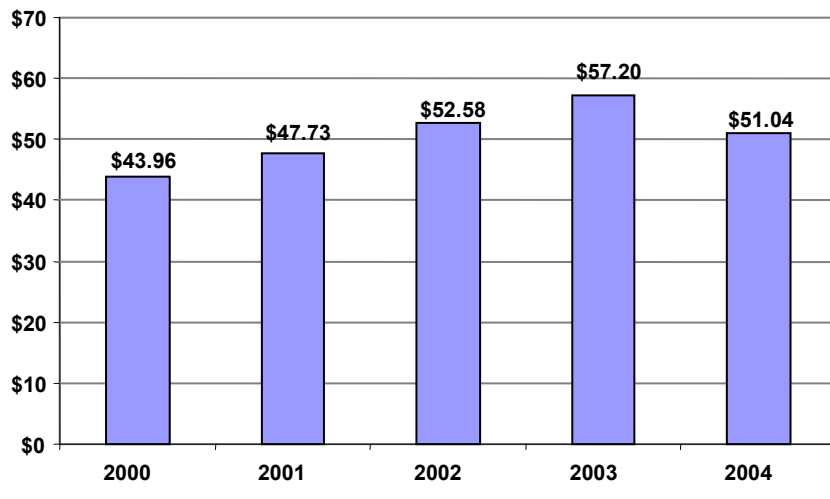
As part of its review of the Procurement of Medical Supplies and Pharmaceuticals in December 2002, JLARC staff recommended the implementation of DHRM's proposed three-tiered co-payment structure for prescription drugs in the State's self-insured plans. At the time, DHRM staff estimated that the savings would be approximately five percent, and a JLARC staff analysis based on FY 2002 drug utilization data estimated \$5.7 million in savings. In addition to the immediate benefits resulting from cost shifting, DHRM reported that associated savings from changing utilization patterns might also be achieved. Similarly, DHRM staff noted that the industry theory behind cost shifting is that it is supposed to develop better consumers.

From FY 2003 to FY 2004, drug costs declined by approximately ten percent, from \$105.1 million to \$94.5 million.

Data from DHRM confirm the savings from the recommended change. From FY 2003 to FY 2004, drug costs declined by approximately ten percent, from \$105.1 million to \$94.5 million (shown previously in Figure 21). In addition, the average cost per prescription drug decreased 12 percent from \$57.20 to \$51.04 (Figure 28). The number of prescriptions per member was almost unchanged at 10.11 (Figure 29). Even though the average number of prescriptions had remained essentially the same, pharmacy expenses in FY 2004 declined. DHRM attributes the decrease in prescription drug costs, despite similar utilization patterns, to increased use of generic drugs.

Figure 28
State Employee Health Care Program Cost Per Prescription

Source: DHRM.



Pharmacy expenses per employee also decreased from FY 2003 to FY 2004 by approximately 11 percent (Figure 30). In FY 2004, largely as a result of the implementation of COVA

Care, the Commonwealth’s program also experienced an eight-percent increase in the use of less-costly generic drugs. These trends in prescription drug cost and utilization will likely level off in the future, because much of the stabilization or decreases in costs can be associated with the implementation of the three-tiered plan. Yet, the goals of the three-tiered prescription drug plan appear to have been achieved.

Figure 29
State Employee Health Care Program Number of Prescriptions Per Member

Source: DHRM.

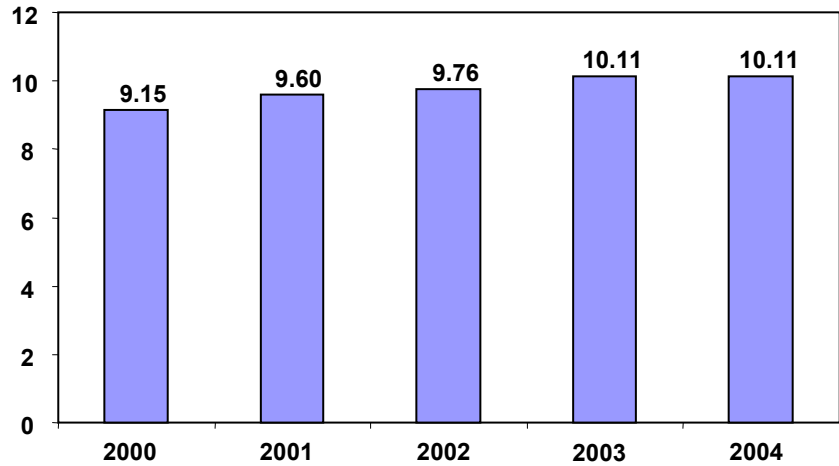
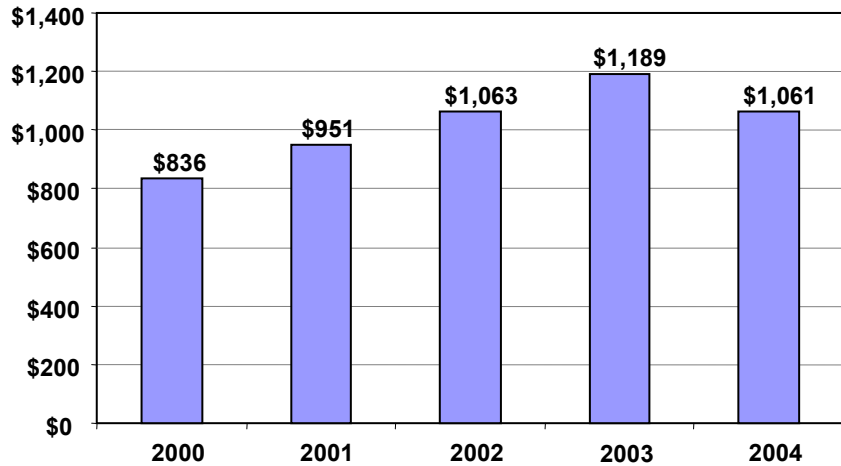


Figure 30
State Employee Health Care Program Pharmacy Expense Per Employee

Source: DHRM.



Due to the implementation of COVA Care, the upward trend in the average annual cost of providing health care coverage per employee has also slowed. For example, the average annual cost of providing health care coverage per employee rose 33 percent between FY 2000 and FY 2004 or an average annual increase of 6.8 percent. However, the increase between FY 2003 and FY 2004 was 3.4 percent. As some of this savings can be attributed to cost shifting through co-payments, deductibles, and co-insurance, the plan is unlikely to experience continued decreases in overall prescription drug costs, but should be better able to manage growth more tightly than under previous plans.

While the implementation of the COVA Care plan reduced premiums, costs have shifted to the users of the benefits through increases in out-of-pocket expenses.

While the implementation of the COVA Care plan reduced premiums, costs have shifted to the users of the benefits through increases in out-of-pocket expenses. However, COVA Care has placed a greater emphasis on disease management for chronic conditions and preventative care. For example, preventive care (such as routine physicals) was not covered under Key Advantage. DHRM staff reported that wellness visits and preventive care are relatively inexpensive and are generally considered money well spent. However, DHRM staff indicated that people with chronic illness have expressed dissatisfaction with the COVA Care program, particularly with the elements that relate to cost shifting. In addition, the decreases in overall drug cost and average cost per prescription are direct results of cost shifting, with employees paying a larger share of drug cost due to the three-tiered co-payment structure.

To address cost drivers that cut across all ages but particularly impact older participants, the Commonwealth has implemented a disease management program. DHRM staff indicate positive results from this program. Disease management is designed to monitor participant outcomes, promote and improve the overall health status and quality of life of participants, delay disease progression, and avoid and/or delay complications associated with certain medical conditions. Through the use of the disease management program and achievement of these outcomes, the plan should also lower its costs. The Anthem Better Prepared voluntary disease management program supports participants with asthma, chronic obstructive pulmonary disease, congestive heart failure, coronary artery disease, and diabetes. Further, the State may try to expand the disease management program to include more diseases. For example, COVA Care recently rolled out a disease management program to address metabolic syndrome (high blood pressure, high cholesterol, and obesity).

In addition, DHRM and the State continue to invest in the promotion of wellness and healthy lifestyle programs. For example, since 1986 the Commonwealth of Virginia has offered the employee wellness program - CommonHealth - as a part of its health benefits package. Currently, more than 65,000 State employees working in approximately 500 agency locations participate in the program. Programs, challenges, and Health Check screenings are offered across the State and delivered in a number of different ways. Other benefits include corporate discount rates at participating fitness centers, a breaking free from tobacco program, and Baby Benefits, which is a free program designed to promote a healthy pregnancy and prevent premature birth. The programs are tailored to meet the specific needs of the agency. In addition, the Governor launched the Healthy Virginians initiative. As part of Healthy Virginians, employees participated in the Virginia on the Move walking program and in a voluntary health risk screening. Because lifestyle-related diseases and conditions constitute a large portion of the State's health plan expenditures, initiatives such as these may help contain or reduce both current and future associated medical costs.

Health Care Premiums Raise Particular Concern for Retirees

With respect to an aging workforce, and according to staff at both DHRM and VRS, the most significant issue facing employees is health care, particularly the cost of retiree health care. As noted previously, retirees pay the full monthly health care premiums, without an employer contribution. As a result, human resources staff and personnel at VRS and DHRM indicated that some employees are surprised by the cost of retiree premiums, because they were used to having a large portion of their active employee health care premiums funded by their employer. Human resources staff also reported that many employees indicated that they were going to stay on the job, even beyond eligibility for retirement, because of health care costs. The high cost of health care creates an incentive for employees to stay on the job longer and may be a benefit to agencies concerned about knowledge transfer and the retention of key staff.

Other reasons often cited by human resources professionals for employees remaining on the job were personal finances, children in college, and the effects of the stock market. VRS staff also reported that retirees have expressed concerns about the inadequacy of the health insurance credit in covering the cost of health care premiums. Further, staff at VRS noted that they commonly hear from retirees who state that do not have enough money left over after health care premiums to cover other monthly expenses. Not surprisingly, 44 percent of respondents to the JLARC survey of retired State employees

indicated that they were currently engaged in some form of employment, with about six percent engaged in full-time employment. Similarly, 66 percent of employees eligible for unreduced retirement in the next five years indicated that they planned to continue working after retiring from State service.

Employees indicated that the cost of health care was the factor that had the most influence on their decision on when to retire.

In the JLARC survey of State employees who were within five years of being eligible for an unreduced benefit, employees reported that the cost of health care was the factor that had the most influence on their decision on when to retire. For example, 71 percent of those surveyed rated the cost of health care as having a strong or very strong influence on their decision to retire (with 56 percent rating it as very strong). Finances ranked second on factors influencing their decision to retire, with 64 percent rating it a strong or very strong influence. However, of those who rated finances as having an influence on their decision to retire, only 36 percent rated it as very strong.

Other high-ranking factors included physical health, changes in agency, and enjoyment of work. Similarly, when asked to rate how much a series of factors might influence them to change their decision on when to retire, 73 percent of employees again indicated that the cost of health care would have a strong or very strong influence on their decision (53 percent indicated very strong). Personal health and salary were noted as other strong influencing factors (64 percent and 57 percent, respectively). As 89 percent of employees surveyed indicated that they planned to enroll in the State's retiree health care program, it is not surprising that plan premiums and costs are of interest to employees.

In order to determine the portion of a retiree's benefit consumed by health care premiums, JLARC staff took the average basic retirement benefit provided to State employees, applied default taxing tables to the gross benefit, and deducted the FY 2006 retiree health care premiums for the COVA Care single, employee plus one, and family coverage. The average State retiree benefit in FY 2005 was \$1,365 per month. An average State retiree who selects single basic coverage can expect to net approximately \$1,049 per month. The net balance is influenced greatly by the type of coverage selected by the retiree. For example, if the same employee had selected employee plus one coverage their net benefit would be \$729. If the employee had selected family coverage, the net benefit drops to \$409. However, as of September 2005, approximately 77 percent of the early retiree group elected single coverage and 46 percent of early retirees elected the Basic plan.

For illustration purposes, staff also deducted the current Medicare-coordinating plan premiums from the average gross benefit. Due to lower premiums for the Medicare-coordinating plan, the average net benefit for single basic Medicare-coordinating coverage is \$1,132. As a result of Medicare Part D implementation, the Medicare-coordinating plan premiums will be reduced and the net benefit will likely improve. In addition, retirees eligible for Medicare are generally eligible for Social Security benefits. Thus, their financial picture at retirement will vary substantially from employees who retired prior to Medicare eligibility. However, early retirees may continue working and supplement their pension income with other earnings until they become eligible for Social Security and Medicare.

New Accounting Standards for Non-Pension, Post-Employment Benefits Will Impact How the State Reports Liabilities

Beginning in the fiscal year ending 2008, the Commonwealth will be required to report additional information about its other post-employment benefits (OPEB). Specifically, Governmental Accounting Standards Board Statements No. 43 and No. 45 (GASB 43 and GASB 45) will require government entities to reflect on their financial statements the long-term cost of post-employment benefits, including health care coverage that employees earn and will receive upon retirement. Like GASB 45, GASB 43 addresses OPEB benefits, but refers to OPEB plans that are administered as trusts. GASB 43 goes into effect for the fiscal year ending June 30, 2007. The implementation of these statements might have significant consequences for the Commonwealth as it potentially results in a larger liability that will have to be reflected in the State's financial statements.

The new rules will require employers to recognize costs when they are being earned, rather than when the benefit is being paid. Previously, many states and similar governmental employers took a pay-as-you-go approach with these benefits, and their financial statements generally did not report the financial effects of OPEB until the promised benefits were paid. For example, the Commonwealth has used the pay-as-you-go approach for the retiree group life, retiree health insurance credit, and the long-term disability benefit under VSDP. Now, under GASB 43 and GASB 45, these benefits will need to be pre-funded and amortized over a period of years -- just like pension benefits -- or the Commonwealth will have to report a liability in the Commonwealth's Annual Financial Report (CAFR). The GASB statements will require a plan to recognize the costs when benefits are being earned, provide information about accrued liabilities, and provide information useful in assessing potential demands on future cash flow.

GASB 45 is similar to Financial Accounting Standards Board Statement No. 106 (FASB 106). FASB 106 significantly changed the prevalent practice in the private sector of accounting for postretirement benefits on a pay-as-you-go (cash) basis by requiring accrual, during the years that the employee renders the necessary service, of the expected cost of providing those benefits to an employee and the employee's beneficiaries and covered dependents. After FAS 106 was implemented in the private sector, many employers dropped retiree health care coverage for their retirees, because the new guidelines required entities to account for the liability associated with these benefits in a new or different way. As a public employer, the Commonwealth is not likely to go out of business. Thus, funding the benefits adequately and reporting the associated liabilities are obvious concerns, but the Commonwealth has a long-time horizon with respect to the funding of its benefits.

In order to determine the potential financial impact of the GASB standards on early retiree health care benefits, DHRM conducted a preliminary actuarial analysis. The actuarial firm AON performed the preliminary analysis to measure the amount of the liability under GASB 45 for the implicit subsidy provided to early retirees under the Commonwealth of Virginia's postretirement benefit plan. Using a unit credit cost method with a 30-year level dollar amortization of the unfunded liability, the Actuarial Accrued Liability (AAL) would be \$846.4 million. The associated FY 2006 Annual Required Contribution (ARC) would be \$83.4 million.

To meet the standards under GASB 45 and GASB 43, the State would need to reflect the unfunded benefit as a liability in its annual financial statements. This would apply for the Retiree Group Life, Long-term Disability plan under VSDP, Retiree Health Insurance Credit, and Early Retiree Health Care plan. While it is unclear how this unfunded liability would affect the State's financial position, it is important to note that most other governmental entities are facing similar circumstances with respect to the implementation of GASB standards dealing with OPEB. With the new information required by GASB, the legislature can make more informed decisions regarding program benefits and their associated funding levels.

Study Mandate

House Joint Resolution No. 103

2004 Session

Directing the Joint Legislative Audit and Review Commission to study the impact of Virginia's aging population on the demand for and cost of state agency services, policies, and program management.

WHEREAS, the 2000 census reported there were 1,065,502 persons who were age 60 or older in Virginia, comprising 15.1 percent of the state's population, and of that number, 87,266 Virginians were age 85 and older, comprising 8.2 percent of this older population and 1.2 percent of the total population of the Commonwealth; and

WHEREAS, Virginia's older population, those age 60 and above, increased by 17.1 percent between 1990 and 2000, growing from 909,906 to 1,065,502 individuals; and the population of Virginia age 75 and older increased at an even faster rate, 36.4 percent between 1990 and 2000, growing from 263,848 to 359,877 individuals; and

WHEREAS, Virginia's older population is projected to increase at even faster rates over the next 30 years, growing to 1,540,299 (19.91 percent of the total population) by 2010; to 2,101,193 (25.49 percent) by 2020; and to 2,611,774 (25.73 percent) by 2030; and

WHEREAS, the distribution of older Virginians varies tremendously across the State, ranging from 7.6 percent of the population in Prince William County to 23.7 percent in the Middle Peninsula and Northern Neck, with consequent disparate economic impacts and widely varying demands for services in different localities; and

WHEREAS, the growth of the older population also is projected to vary dramatically across the Commonwealth, such that those areas with higher concentrations of "baby boomers" in 2000 relative to the existing population age 60 and above will experience significantly greater increases in the older population beginning in 2006, when the first "baby boomers" turn 60 years of age (for example, Prince William County has more than four times as many "baby boomers" as persons age 60 and older, while the Eastern Shore has almost the same number of each); and

WHEREAS, in the 2000 census, 149,726 Virginians (19.9 percent of the population age 65 and over) reported having one sensory, physical, mental, self-care, or go-outside-of-home disability and 167,359 (22.2 percent of the older population) reported having two or more such disabilities; and WHEREAS, the health risk conditions of older Virginians (age 65 and above) have increased between 1995 and 2001, for example, the percentage of those over-

weight grew from 39.2 to 40.5 percent and the percentage of those engaging in chronic drinking (60 or more alcoholic drinks per month) grew from 1.0 to 2.7 percent; and

WHEREAS, this growing older population, increasing dramatically in numbers as well as longevity, will experience ever greater needs of services, ranging from nursing home and assisted living arrangements to the services and supports needed for older persons to remain in their homes or in their communities and including increasingly complex and expensive health care, more frequent and intensive social services, expanded and more elaborate state facility and community geriatric mental health services, and enhanced advocacy and legal services; and

WHEREAS, for example, the Virginia Department for the Aging identified the following monthly unmet needs for services in 2002: 37,161 hours of adult day care, 129,705 home-delivered meals; 54,350 hours of homemaker services; 25,332 hours of personal care services; 507 homes in need of repairs; and 11,502 transportation trips; and

WHEREAS, state and local government workforces reflect these demographic trends, and, as a result, a growing proportion of public employees will be retiring in the next 10 years, with concomitantly increasing demands on the financial resources of the Virginia Retirement System and the state and local governments that support it; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Joint Legislative Audit and Review Commission be directed to study the impact of Virginia's aging population on the demand for and cost of state agency services, policies, and program management. In conducting its study, the Joint Legislative Audit and Review Commission shall consult with the Commonwealth Council on Aging, the Commissioners of the Departments of Health and Mental Health, Mental Retardation and Substance Abuse Services, the Department of Social Services, the Department for the Aging, the Department of Medical Assistance Services, the Department of Corrections, the Department of Human Resource Management, and the Director of the Virginia Retirement System. Technical assistance shall be provided to the Joint Legislative Audit and Review Commission by the Commonwealth Council on Aging. All agencies of the Commonwealth shall provide assistance to the Joint Legislative Audit and Review Commission for this study, upon request.

The Joint Legislative Audit and Review Commission shall complete its meetings for the first year by November 30, 2004, and for the second year by November 30, 2005, and the Chairman shall submit to the Division of Legislative Automated Systems an executive summary of its findings and recommendations no later than the first day of the next Regular Session of the General Assembly for each year. Each executive summary shall state whether the Joint Legislative Audit and Review Commission intends to submit a document of its findings and recommendations to the Governor and the General Assembly. The executive summaries and the documents shall be submitted as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and reports and shall be posted on the General Assembly's website.

Appendix
B

Data Analysis and Survey Methodology

This appendix describes the research methods completed for this report. Key research activities included an analysis of retirement and turnover data; a review of agency workforce plans; and surveys of active State employees, retired State employees, and State agencies.

Analysis of Retirement and Turnover Data

In order to assess how many employees could potentially retire over the next ten years, JLARC analyzed data provided by the Virginia Retirement System (VRS) on the number of employees eligible for full retirement between 2005 and 2015. Employees eligible for an unreduced retirement benefit are those who are 65 years of age with five years of service or at least 50 years of age with 30 years of service credit. The VRS data were matched with information from the Department of Human Resource Management (DHRM) on the number of employees in specific roles and agencies. The data provided by DHRM were incomplete in some cases and did not include independent agencies and non-classified positions. Therefore, the analysis for this report includes only executive agencies and the independent agencies (where data were available). A separate analysis was conducted of institutions of higher education.

For both the agency level and position level analyses of employees eligible to retire, a minimum cut-off number of employees was chosen for the data. In most cases that cut-off was 30 employees, since a smaller number of employees would be more prone to large random changes which might not accurately reflect trends for the State agency or role examined. For the State agency level analysis, institutions which are overseen by a central agency, such as individual correctional facilities within the Department of Corrections, or individual hospital facilities within the Department of Mental Health, Mental Retardation and Substance Abuse Services, were combined with the controlling central agency.

Turnover data for the prior four years for individual roles and agencies were also analyzed to provide greater context to retirement trends historically and for particular roles and agencies. In addition, staff reviewed turnover data on the percent-

age of retirements for State employees overall in the prior 15 years.

In order to estimate how many employees would likely retire in the next decade, among those eligible for an unreduced benefit, JLARC staff examined the total number employees who were eligible at the end of fiscal year 2005 and compared this percentage to the percentage of employees who retired over the prior year. This percentage was then applied to the number of eligible employees expected in future years, which resulted in a calculation of the number of expected retirements over the next five and ten years. Another projection on the level of retirements was calculated, assuming the percentage of eligible employees who choose to retire doubles. This results in a retirement rate similar to the highest rate of retirements in the State workforce in the last 15 years.

For the analysis of institutions of higher education, complete data regarding employees' retirement eligibility were available only for classified employees through VRS and DHRM. The data were used to calculate the number of employees eligible to retire currently, and over the next five and ten years. For the analysis of the non-classified workforce at higher education institutions, JLARC staff relied on the partial information available through VRS and DHRM, and information obtained during interviews with a sample of colleges and universities.

Workforce Plan Review

JLARC staff reviewed the workforce plans which agencies were required to submit to DHRM in 2004. This review noted whether agencies had included basic information such as the average age and years of service of employees, employees' education levels, and the percentage of turnover annually. The review also sought to capture how many agencies provided more in-depth analysis through the use of: historical data on trends with respect to employees' age, turnover levels, or years of service; surveys of employees on their retirement intentions; data on when employees typically retire; and data broken down by division, employee role, or Equal Employment Opportunity Commission code.

In addition to documenting the type of data agencies had analyzed in creating their workforce plans, the JLARC review tried to capture the extent to which agencies had identified various workforce issues which could be related to an aging workforce or which might be exacerbated by an aging workforce. Examples of such issues included: employee skill deficiencies, recruiting difficulties, high turnover, retirements, and knowledge transfer. JLARC staff also examined and recorded factors which might contribute to these problems, such as labor mar-

ket trends, program expansion, compensation levels, and structural barriers. JLARC staff also noted whether agencies had identified strategies for dealing with the issues which they had identified as concerns.

Survey of Active State Employees

A survey of active State employees who are eligible to retire with unreduced benefits in the next five years was used to assess trends and perceptions about impending retirements among those employees. The survey included questions about specific retirement plans (such as the intended year of retirement) as well as questions regarding what factors influence employees' decisions on when to retire.

The original sample of 410 current State employees eligible to retire with unreduced benefits in the next five years was selected randomly by VRS using audit command language software. The software is designed to generate random sample populations. VRS provided JLARC with each potential respondent's identifying information, amount of service in years and months, and Member Benefit Profile (MBP) salary. DHRM then provided the individual's role number, role title, current salary, complete mailing address, and email address (where available).

Among the sample of 410 employees, twenty individuals were randomly picked to participate in a pretest of the survey. Ten of the employees with emails pretested the electronic copy, and ten without emails pretested the paper copy. As part of the pretest sample, participants were asked to take the survey and provide feedback on the clarity and appropriateness of the questions. From the responses received, the survey was revised and distributed via postal mail to the 390 other participants, 293 of whom had active email address and 97 who did not. The survey was administered electronically to the sample with active email addresses and via postal mail to those who did not.

At the time of its analysis, JLARC had received 159 responses. The sample included one invalid postal address and 25 invalid email addresses. Thus, the total response rate for the survey was 44 percent.

Overall, employees in the sample had an average of 28 years of service, an age of 56 years, a salary of \$48,216, and a MBP salary of \$48,811. With regard to differences in respondents versus non-respondents, there were no qualitatively significant differences on the variables of total service time or age. Salary and MBP salary, however, were significantly different between the two groups with respondents earning approximately

\$6,000.00 more per year and having an MBP salary approximately \$6,400.00 greater than non-respondents. This may be in part due to the fact that of the 8 sampled participants earning more than 100,000 a year, five responded to the survey.

Survey of Retired State Employees

A second survey was conducted with State employees who retired within the last five years. These individuals were asked about their reasons for retiring, their involvement in knowledge transfer activities prior to retirement, and their current employment situation.

A random sample of 400 recent retirees was generated for JLARC by VRS. VRS provided the following information on each participant: retiree identifying information, date of retirement, amount of service in years and months, last agency employer, and benefit amount. Based on Social Security numbers, DHRM provided the role number, role title, last salary, and complete address of each retiree.

From this sample of 400 retirees, ten were randomly selected to participate in a pretest of the survey. The survey was revised and distributed via postal mail to the balance of 390 participants. A follow-up, reminder post card was sent to all non-respondents.

The initial mailing to 390 participants occurred in late September. At the time of its analysis, JLARC had received 238 responses. Given that the sample included 24 invalid addresses, the total response rate for the survey was 65 percent.

Retirees in the sample had an average benefit amount of \$1,806, with a minimum benefit of \$81 and a maximum benefit of \$4649. Average total service time was 28 years, with a minimum of five years and a maximum of 45 years. Average age was 61 years, with the youngest respondent being 51 years and the oldest 76 years. The average length of respondents' retirements was approximately three years with some retiring as recently as 1.3 years ago and some as long ago as 4.3 years. In terms of salary, data for one respondent was not available. This respondent was excluded from the analysis of the salary variable which averaged \$43,901, with a minimum and maximum salary of \$12,438 and \$81,452, respectively.

There were no qualitatively significant differences between respondents and non-respondents on the variables of benefit amount, total service time, age, length of retirement, or salary.

Survey of State Agencies

The third survey was administered to State agencies with more than ten employees. The sample included executive branch agencies, independent agencies, and community colleges (Table B1). Agencies in the legislative and judicial branches were excluded. Additionally, four-year institutions of higher education were not included in the sample because they are not subject to the Virginia Personnel Act and are exempt from other State policies. Each agency in the sample was asked to evaluate issues such as impending critical personnel shortages due to retirements, workforce planning, salary compression, and the support provided by the State to handle these matters.

Ninety-six agencies with ten or more employees were surveyed. Five were asked to pretest the survey, which was administered online. Based on their feedback, the survey was revised and administered to 91 agencies. Of the 91 agencies in the sample, 23 were community colleges. Overall, 75 agencies responded for a response rate of 82.4 percent. However, community colleges, which made up 25 percent of the sample, had a lower response rate of 65 percent. When omitting community colleges from the sample, the response rate of all other agencies was 88 percent.

Qualitative Data Analysis of Survey Responses

In each survey, there were questions which required an open-ended response. For example, State agencies were asked to comment on barriers to resolving issues with salary compression. Thus, responses to this question were unique to each participant. In these instances, the data was analyzed using a constant comparative method. The responses were read for potential themes that were commonly presented. For example, one theme among State agencies regarding barriers to dealing with salary compression was funding. Once themes (or categories) were extracted by which responses can be classified, those responses were compared to the identified categories to determine if the categories appropriately and accurately represented participants' responses. This process was repeated several times with the same question. In this way, themes were continuously refined to derive the most concise and accurate representation of respondents' comments to a question. The more responses identified that related to a theme, the more evidence there was that the theme was a sound evaluation of participants' comments. For example, nearly every agency referenced lack of funding, in some manner, in its comments about dealing with salary compression. This was strong evidence to support the survey finding that lack of funding was a perceived by agencies as a signifi-

cant barrier. Occasionally, there was a single response which did not fit under any identified theme(s); however, it could not constitute a theme by itself. Although that response could not be used as evidence of a finding from the survey, it was considered, nevertheless, for its relevance to and insight about the question under consideration. All qualitative questions and responses were reviewed in this manner.

Table B1
Agencies and Institutions Surveyed

Source: JLARC Survey of State Agencies.

Blue Ridge Community College	Department of Human Resource Management
Central Virginia Community College	Department of Juvenile Justice
Cooperative Extension and Agricultural Research Services	Department of Labor and Industry
Dabney S. Lancaster Community College	Department of Medical Assistance Services
Danville Community College	Department of Mental Health, Mental Retardation, & Substance Abuse Services
Department for the Aging	Department of Military Affairs
Department for the Blind & Vision Impaired	Department of Mines, Minerals, & Energy
Department of Accounts	Department of Minority Business Enterprise
Department of Agriculture & Consumer Services	Department of Motor Vehicles
Department of Alcoholic Beverage Control	Department of Planning and Budget
Department of Aviation	Department of Professional & Occupational Regulation
Department of Business Assistance	Department of Rail & Public Transportation
Department of Charitable Gaming	Department of Rehabilitative Service
Department of Conservation & Recreation	Department of Social Services
Department of Correctional Education	Department of State Police
Department of Corrections	Department of Taxation
Department of Criminal Justice Services	Department of the Treasury
Department of Education	Department of Transportation
Department of Emergency Management	Department of Veterans Services
Department of Employment Dispute Resolution	Division of Community Corrections
Department of Environmental Quality	Eastern Shore Community College
Department of Fire Programs	Frontier Culture Museum of VA
Department of Forestry	Germanna Community College
Department of Game and Inland Fisheries	J. Sargeant Reynolds Community College
Department of General Services	Jamestown-Yorktown Foundation
Department of Health	John Tyler Community College
Department of Health Professions	Library of Virginia
Department of Historic Resources	Longwood College
Department of Housing and Community Development	Lord Fairfax Community College

Table B1 (continued)
Agencies and Institutions Surveyed

Marine Resources Commission	Tidewater Community College
Motor Vehicle Dealer Board	Virginia Center for Behavioral Rehabilitation
Mountain Empire Community College	Virginia College Savings Plan
New River Community College	Virginia Community College System
Northern Virginia Community College	Virginia Department for the Deaf & Hard of Hearing
Patrick Henry Community College	Virginia Employment Commission
Paul D. Camp Community College	Virginia Highlands Community College
Piedmont Virginia Community College	Virginia Information Technologies Agency
Rappahannock Community College	Virginia Institute of Marine Science
Science Museum of Virginia	Virginia Museum of Fine Arts
Secretary of the Commonwealth	Virginia Museum of Natural History
Southside Virginia Community College	Virginia Office for Protection and Advocacy
Southwest Virginia Community College	Virginia Port Authority
State Board of Elections	Virginia Retirement System
State Compensation Board	Virginia School for the Deaf/Blind-Hampton
State Corporation Commission	Virginia School for the Deaf/Blind-Staunton
State Council of Higher Education	Virginia Western Community College
State Lottery Department	Virginia Workers Compensation Commission
Substance Abuse Services	Wytheville Community College
Thomas Nelson Community College	

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