EFFECTS OF POSSIBLE CHANGES IN THE SOCIAL SECURITY SYSTEM ON THE VIRGINIA RETIREMENT SYSTEM

PREPARED FOR
THE JOINT LEGISLATIVE AUDIT & REVIEW COMMISSION
VRS OVERSIGHT SECTION

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I. EXECUTIVE SUMMARY

Our Social Security System continues to uphold the original principles under which it was established: benefits are work-related with no means test, a contributory element, universal, compulsory coverage, and rights are defined in the law. However, there is an ever-increasing need to reform the present system, to update it to demographic and societal changes, and restore a measure of fiscal stability. Social Security is just one part of an individual’s retirement decision, the other components being personal savings and employment-related pension plans. Although there is no official relationship between Social Security and the Virginia Retirement System, they are linked by the significance they represent to an individual’s decision of when to retire.

Social Security’s current eligibility age is sixty-two with a penalty, sixty-five with no penalty. Under present law, the age is set to increase gradually as life expectancies grow. Workers are “fully insured” when they acquire forty “quarters of coverage.” In 1995, the average benefit level, based on a formula of “average indexed monthly earnings,” was $698. Nearly 38.4 percent of recipients’ aggregate family income comes from Social Security benefits, while 16.3 percent comes from other retirement systems. The combined tax rate for Social Security and Medicare is 7.65 percent, with a maximum taxable income of $61,200. Projections by the Social Security Administration estimate that the trust fund will be insolvent by the year 2036.

The fiscal balance of the Social Security System is directly affected by demographic trends in the population. Current demographic trends in mortality, fertility and immigration are driving the costs of Social Security and creating the need for reform. These trends include longer life expectancy, decreased fertility rates, declining worker/beneficiary ratios and increasing immigration. Several pieces of legislation have been introduced to offset these trends and to create a long-term solvency for the system.

Senators Kerrey and Simpson have promulgated a proposal for Social Security reform legislation. The eight provisions in their legislation are aimed at curbing the growth of entitlement spending and preserving the original purpose and goals of the system. The provisions of the Strengthening Social Security Act of 1995 include establishing individual “personal investment plans,” accelerating the currently scheduled Normal Retirement Age (NRA) change, limiting COLAs to the beneficiary level of the 30th percentile, reducing the overall COLA with a modification to the CPI, adjusting the “primary insurance amount,” reducing spousal benefits, redirecting revenues received from taxation, and partially privatizing the trust fund.

The proposal to establish an optional Personal Investment Plan (PIP) for Social Security has the potential to impact both the financial balance and administrative costs of the Virginia Retirement System. Under the proposed PIP program, the VRS would have to assume increased administrative costs for enrolling agency employees in payroll deduction programs and provide supplementary communication and education programs. An enhancement of individual investment counseling services may also be needed to assist VRS members with these more
complex investment decisions. This report concludes that the PIP will have an impact on the financial balance of the VRS but it is difficult to create actual benefit/cost estimates since prediction of the investment behavior or future market performance of individual PIP plans is complicated.

The proposal to increase the Normal Retirement Age for Social Security potentially has an impact on VRS because the NRA is an important signal for people about when to retire. Only those people age fifty-one and under will be affected by the acceleration of the NRA. Approximately 77.7 percent of active VRS members are age fifty-one and under. Only people under age twenty-nine will be affected by the eventual increase in the NRA to age seventy, which amounts to approximately 7.8 percent of VRS members. The empirical evidence suggests that there are other important factors in the decision of when to retire and that this increase in the NRA is unlikely to produce a large change in retirement patterns. While the increase in the NRA can be expected to increase the actuarial balance of the VRS as members contribute longer and draw benefits for a shorter period of time, this will be offset by the increased level of benefits as workers achieve a higher Average Final Compensation (AFC) and more years of service.

The Kerrey-Simpson legislation also focuses on instituting a cap on Social Security COLAs at the 30th percentile and introducing a permanent shift in the estimation of the CPI. These reforms should both have a definitive impact on the retirement decisions to VRS members. By instituting a cap on COLAs at the 30th percentile, higher income beneficiaries will see their real level of benefits erode as they age. However, this only affects higher income beneficiaries; those under the 30th percentile will maintain the same level of welfare. Every indication of reform to the actual CPI points to a stable level of welfare for all new retirees. The new measure will have a more profound effect on those currently receiving the inflated cost of living adjustments, since reform will surely lead to reduced benefits over time. Those people yet to join the ranks of the retired will be no worse off if the new measure begins to properly estimate cost of living increases, since they never received an exaggerated COLA.

All the reforms under consideration assist in restoring actuarial balance to the Social Security System. However, as the impact analyses indicate, change will have divergent effects on beneficiaries and ultimately the reliance each places on VRS. Any retirement decision revolves around three components, and Social Security, as the largest, contains the most opportunities for reform. Nevertheless, reform should be approached in a prudent manner. Although VRS benefit levels are not directly linked by formula or law to Social Security benefit levels, we have determined that the proposed reforms to the Social Security System may have an impact on the overall administrative costs and financial balance of the Virginia Retirement System. The direction and magnitude of the impact on the VRS, however, will depend on the individual retirement decisions of VRS members.
# Summary of Potential Impacts of Major Proposed Reforms

<table>
<thead>
<tr>
<th>Linkages to VRS/Proposed Reforms</th>
<th>Establishing Personal Investment Plans</th>
<th>Increasing the Normal Retirement Age</th>
<th>Capping COLAs, Adjusting the CPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact on the Retirement Age Decision</td>
<td>Varies - Potential exists for both an increase or decrease in age at which an individual decides to retire.</td>
<td>Modest - Potential increase, measured in weeks or months, not years.</td>
<td>Varies - very dependent on the VRS income classification.</td>
</tr>
<tr>
<td>Impact on Level of Benefits</td>
<td>Varies - Impact will depend on cumulative effect of investment decisions and market performance of individual PIP plans. Impact also depends on the percentage of state employees electing to enroll in PIP plans</td>
<td>Increase the level may reduce total - If retirement age increases, members will draw for fewer months, but have more years of service and higher salaries to be used in calculating benefits.</td>
<td>Varies - impact depends on the level of income earned during lifetime. Reform of CPI will arrive at truer computation of cost of living; should maintain welfare level.</td>
</tr>
<tr>
<td>Timing of Potential Impacts</td>
<td>Varies - Impact will depend on when individuals decide to retire.</td>
<td>Delayed - Will not affect anyone over 51.</td>
<td>Decrease in CPI immediate; COLA cap yearly</td>
</tr>
<tr>
<td>Other Impacts of VRS</td>
<td>Increased administrative costs. Potential for increased or decreased VRS payout of retirement benefits.</td>
<td>Improve the actuarial balance of the VRS.</td>
<td>Reform will lead to lower COLAs paid through VRS; lower payouts over time.</td>
</tr>
<tr>
<td>Who is Most Affected?</td>
<td>All members of VRS. VRS Administration.</td>
<td>Lower income members, blacks, men because of their lower life expectancy.</td>
<td>Higher income groups in the VRS. Current retirees.</td>
</tr>
</tbody>
</table>
II. BRIEF OVERVIEW OF VRS

While there is no legal relationship or formula linking Virginia Retirement System (VRS) benefits to Social Security benefits, as a practical matter, Social Security benefits are a key component of the retirement planning of VRS members. Social Security is an important part of the financial planning component of the VRS Preretirement Education Program (PREP) offered to members. In addition, VRS provides a copy of the Social Security Update which contains information for people currently working as well as those who are getting benefits. Since the "full retirement" age is important for people planning retirement, VRS provides information on how the retirement age is being increased in gradual steps from the current age of sixty-five to the age of sixty-seven.

Background

The VRS Board of Trustees is composed of nine members. Five are appointed by the governor and four are appointed by the Joint Rules Committee of the General Assembly. All are confirmed by the General Assembly.

The VRS was established on March 1, 1952 as a supplemental system to permit public employees to participate in both the Social Security and the state systems. It is a defined benefit pension plan covering state employees, teachers and non-professional employees of public school boards, and employees of participating political subdivisions. In Fiscal Year 1995, there were 262,300 active members and 78,100 retired members. Approximately $761,000,000 in retirement benefits were paid in Fiscal Year 1995.

Membership in VRS is required of full-time, salaried employees in covered positions. Members who work for five years are "vested." Members who terminate work may receive a
refund of contributions. Early retirement is available for members age fifty-five with at least five years of service, with reduced monthly benefits. Members are eligible for regular retirement at age sixty-five with at least five years of service or at age fifty-five with thirty years of service. The benefit formula is based on age at retirement, years of service and average final salary. Cost of living increases include the full amount of the first three percent of the CPI and then half of any increases from three to seven percent, with a maximum of five percent. The VRS is financed by the invested contributions of members. Employees are required to contribute five percent of salary (Annual Report, 1995).

Active membership is distributed as follows:

Figure 2.1
Active Membership Distribution

<table>
<thead>
<tr>
<th>Category</th>
<th>1993</th>
<th>1994</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>83,151</td>
<td>88,794</td>
<td>88,877</td>
</tr>
<tr>
<td>Political Subdivision Employees</td>
<td>106,597</td>
<td>103,430</td>
<td>100,640</td>
</tr>
<tr>
<td>State Police Officers</td>
<td>70,586</td>
<td>68,879</td>
<td>67,628</td>
</tr>
<tr>
<td>Judges</td>
<td>1,590</td>
<td>1,606</td>
<td>1,590</td>
</tr>
</tbody>
</table>

**Economic Conditions and Forecast**

According to the 1995 Annual Report, Virginia’s economy showed overall growth at a rate faster than the national economy. Nearly 87,200 new jobs were created for an annual growth rate of three percent, with the service sector identified as the fastest growing. Regionally, Northern Virginia grew faster than any other area. During FY 1995, government employment fell by approximately 13,200 jobs, or 3.3 percent (Annual Report, p. 8).
III. THE CURRENT SOCIAL SECURITY SYSTEM - AN OVERVIEW

Highlights

- The current age that individuals can retire without an "early retirement penalty" is 65. Under current law, the age will rise to 67 by 2027.
- The average monthly benefit was $698 as of January 1995.
- Social Security benefits account for 38.4 percent of recipients’ income.
- The combined tax rate for Social Security and Medicare is 7.65 percent.
- $61,200 is the maximum income that is taxable under FICA.
- The estimated year of insolvency for the OASI Trust Fund is 2036.

Background

The Social Security Act, signed into law at the height of the Great Depression, on August 14, 1935, established two national social insurance programs to meet the risks of old age and unemployment. Significant amendments were enacted in 1939, including the extension of benefits to a worker’s spouse and children.

The Social Security Independence and Program Improvements Act of 1994 established the Social Security Administration (SSA) as an independent Federal agency. Public Law 103-296 was signed on August 15, 1994 and became effective on March 31, 1995, to make SSA a separate entity from the Department of Health and Human Services. SSA is governed by a Commissioner and a seven-member bipartisan advisory board, with the Commissioner appointed by the President and confirmed by the Senate for a six-year term. Four of the members serve by virtue of their positions in the Federal Government. They include:

- Secretary of the Treasury, as Managing Trustee
Secretary of Labor
Secretary of Health and Human Services
Commissioner of Social Security

In addition to about 1,300 field offices, the Social Security Administration has a toll-free telephone number (800-772-1213) for specific questions about an individual’s benefit eligibility or coverage. Ten Regional Commissioners direct the field operations.

Popularly referred to as Social Security, the Old-Age, Survivors and Disability Insurance (OASDI) program is the largest income-maintenance program in the United States.

Principles

To this point in history, certain basic principles of the OASDI program have been followed. These principles include:

- Benefits are work related
- No means test on benefits
- A contributory element
- Universal, compulsory coverage
- Rights are defined in the law

Benefits are based on the past employment of an individual worker. Benefits are treated as an earned right and are paid regardless of other resources, aside from earnings. The program is financed by earmarked taxes paid by workers. Coverage is nearly universal in order to stabilize the cost and reduce the risks. The law clearly defines the conditions under which benefits are to be paid with a minimum of administrative discretion.
**Eligibility**

The Social Security System has paid or will cover benefits to nearly every citizen born after 1875. The original act covered nonagricultural industry and commerce employees only. In 1937, less than sixty percent of jobs were covered, while today, nearly ninety-five percent of jobs are covered.

It is an “entitlement” program, in that individuals who meet the eligibility requirements automatically receive benefits. Benefits are computed from individuals' earnings records. Four types of benefits are available as part of Social Security:

- Retirement Insurance
- Survivor's Insurance
- Disability Insurance
- Medicare

As early as age sixty-two, workers can retire and receive a monthly benefit for life. At age sixty-five a person can begin to draw Social Security without any “early retirement penalty.” Under current law the age will rise to sixty-seven by 2027. In the event of an early death, an individual’s spouse and children may receive benefits. Disability insurance provides security for workers by assuring a monthly income if they are unable to work due to an illness or disability. Medicare provides hospital and medical insurance.

Under current law, the normal retirement age is scheduled to increase to age sixty-seven for those born after 1960. Current law also provides for the provision of a twelve-year plateau when the retirement age remains at age sixty-six for those born between the years of 1943 and 1955.
Table 3.1
Full Retirement Age
Based on Year of Birth

<table>
<thead>
<tr>
<th>Born In</th>
<th>Full Retirement Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1937</td>
<td>65</td>
</tr>
<tr>
<td>1938</td>
<td>65 and 2 months</td>
</tr>
<tr>
<td>1939</td>
<td>65 and 4 months</td>
</tr>
<tr>
<td>1940</td>
<td>65 and 6 months</td>
</tr>
<tr>
<td>1941</td>
<td>65 and 8 months</td>
</tr>
<tr>
<td>1942</td>
<td>65 and 10 months</td>
</tr>
<tr>
<td>1943-1954</td>
<td>66</td>
</tr>
<tr>
<td>1955</td>
<td>66 and 2 months</td>
</tr>
<tr>
<td>1956</td>
<td>66 and 4 months</td>
</tr>
<tr>
<td>1957</td>
<td>66 and 6 months</td>
</tr>
<tr>
<td>1958</td>
<td>66 and 8 months</td>
</tr>
<tr>
<td>1959</td>
<td>66 and 10 months</td>
</tr>
<tr>
<td>1960 and later</td>
<td>67</td>
</tr>
</tbody>
</table>

Source: U.S. Congress, House Committee on Ways and Means (1992:9-13)

To acquire credit for benefits, individuals need to have a certain number of "quarters of coverage" (QCs). The quarter of coverage amount is raised each year to keep up with average wage increases. While the total number of work credits needed to qualify for benefits depends on age and the type of benefit, once an individual has earned credit for ten years of work, or forty quarters, they are "fully insured." Retiring workers apply for Social Security through the mail, by telephone or by visiting an agency field office.

State and local government employees that are not under a retirement system are covered by Social Security on a mandatory basis. Each state and local government unit with a pension plan may decide for itself whether to join Social Security. Once elected, participation cannot be discontinued. Presently, more than seventy-five percent of all state and local employees are
covered by Social Security.

**Benefit Levels and Impact on Recipients' Incomes**

The U.S. Social Security System will pay about $520 billion in benefits in 1995. As of August 1994, there were 42.6 million recipients. Approximately 901,430 recipients live in Virginia or 2.1 percent of the total. The amount of monthly Social Security retirement benefits is based on earnings covered by Social Security. The basic benefit, known as the "primary insurance amount" (PIA), is calculated by a formula based on "average indexed monthly earnings" (AIME). The basic formula for PIA for workers who reach age sixty-two in 1995 is:

- Ninety percent of the first $426 of AIME, plus
- Thirty-two percent of AIME in excess of $426, but not in excess of $2,567, plus
- Fifteen percent of AIME in excess of $2,567

Automatic cost-of-living-adjustments (COLAs) keep benefits in line with inflation. The increase in benefits for January 1995 was 2.8 percent.

The average monthly benefit for all retired workers in January 1995 was $698, $661 for all disabled workers, and $1,178 for retired workers and their spouses. In 1995, the average wage earner who retires at age sixty-two will collect $691, at age 65, $858.

There is a two-thirds reduction in spousal benefits for $1 of pension received from government employment not covered by Social Security. A forty percent factor is used as the first step of the benefit formula (instead of ninety percent), if a worker receives a pension from government employment not covered by Social Security and has less than twenty-one years of substantial Social Security coverage. The reduction cannot exceed fifty percent of the government pension.

Benefits are paid regardless of the economic status of recipients. The direct linkage
between the amount of taxable earnings and the eventual benefit has fostered the perception that Social Security benefits are a "right" and not a government transfer payment.

On average, 38.4 percent of recipients' aggregate family income is derived from Social Security, 16.3 percent from other retirement systems, 16.5 percent from interest, dividends and rents, and 23.1 percent from earnings. Incidentally, there is an earnings test to Social Security, which reduces the benefits of recipients who earn income from work above a certain amount. In 1995, recipients under age sixty-five could earn up to $8,160 in wages without having their benefits reduced. The level for those sixty-five to sixty-nine is $11,280. About 1.4 million recipients or four percent are affected by the earnings test each year.

The Trust Fund

The Federal Old-Age and Survivors Insurance Trust Fund was established on January 1, 1940 as a separate account in the U.S. Treasury. Contributions are collected by the Internal Revenue Service and deposited into the general fund. They are then appropriated to the OASI Trust Fund. Money not currently needed is invested in interest-bearing securities guaranteed by the U.S. Government.

Funding Sources: Payroll Taxes, Transfers, and Interest

The Social Security Trust Fund is supported through a payroll tax levied at a flat rate on individuals' earnings, also known as FICA (Federal Insurance Contributions Act), which is also matched by their employers. There are actually two taxes, one funds retirement, disability and survivors, the other funds Medicare. The combined tax rate is now 7.65 percent. Of this amount 6.2 percent is dedicated to Social Security benefits and 1.45 percent is dedicated to Medicare. For high income workers, the taxable amount continues to rise. For 1995, $61,200 is the
maximum amount on which the full 7.65 percent tax is due. Earnings in excess of that amount are exempt from the Social Security tax, but not Medicare. In 1994, the average earner paid $1,816 as their employee share of FICA.

Trust fund income includes transfers from the general fund and interest earned on invested assets. Transfers include payments for gratuitous military service wage credits and for benefits to persons who qualify under special insured status requirements.

State and local government workers participating in alternative retirement systems of their employers are exempt from the tax. Hospital insurance tax is mandatory for state and local government workers hired since April 1, 1986.

Financial Projections for the Trust Fund

The Trustees of the system, the Commissioner of Social Security and two outside members, are required by the Social Security Act to report to Congress annually on the financial and actuarial health of the trust fund. The tests used to review the financial status of the trust funds include:

- Short-range Test
- Long-range Test
- SMI Actuarial Soundness

The short-range test requires that the trust fund ratio, which is the amount in the trust fund at the beginning of the year divided by the outgo for the year, is at least 100 percent over the next 10 years.

The long-range test requires that a fund have an actuarial deficit of no more than 5 percent of the cost rate over 75 years. If this test is met, the trust fund is said to be in close
actuarial balance. Because of the inherent uncertainty in projections seventy-five years into the future, projections are reported under three sets of assumptions, ranging from low cost to high cost. The most optimistic, current forecast is for a 7.4 percent surplus. The intermediate forecast is for a 13.9 percent deficit. The pessimistic forecast is for a 29.3 percent deficit. The test for SMI actuarial soundness requires that trust fund assets and projected income cover projected outgo for a specific time period. The estimated year of insolvency, using the intermediate forecast is 2029 combined (1995 for the Disability Insurance Trust Fund and 2036 for the Old-Age and Survivors Insurance Trust Fund). In 1950, there were 16.5 taxpayers per recipient. The projected figures for 1994, 2030 and 2060, are 3.2 to 1, 2.0 to 1, and 1.8 to 1, respectively.
IV. DEMOGRAPHIC, OPERATIONAL, AND FINANCIAL ISSUES IMPACTING SOCIAL SECURITY

The fiscal balance of the Social Security system is directly affected by demographic trends in the population. Mortality, fertility, and immigration levels ultimately determine the size of the labor force and the total number of Social Security beneficiaries who will be supported by the system.

*Life Expectancy/Mortality*

Today a higher percentage of the population in the United States survives to old age than any previous generation. The overall increase in life expectancy has been attributed to advancements in medical research, increased access to health care services, and improvement in personal health care practices such as diet and exercise (OASDI Annual Report, p. 144; Yacas, p. 5). Historically the death rate in the United States has declined fairly steadily over time and most medical experts have predicted that the average human life span will continue to increase during the next century (OASDI Annual Report, p. 144).

The proportion of the population surviving to old age has increased dramatically since Social Security was established in the late 1930's. Table 4.1 below shows that in 1940, 53.9 percent of men and 60.6 percent of women survived from age twenty-one to sixty-five. In 1990, 72.3 percent of men and 83.6 percent of women born in 1925 reached the age of sixty-five. Life expectancy projections indicate that in 2030, 80.4 percent of all men and 88.8 percent of women born in 1965 will attain the age of sixty-five.
Table 4.1

Historical and Projected Improvements in Life Expectancy
1940-2070

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Percentage of Population Surviving from ages 21-65</th>
<th>Remaining Life Expectancy At Age 65</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>1940</td>
<td>53.9</td>
<td>60.6</td>
</tr>
<tr>
<td>1950</td>
<td>56.2</td>
<td>65.5</td>
</tr>
<tr>
<td>1960</td>
<td>60.1</td>
<td>71.3</td>
</tr>
<tr>
<td>1970</td>
<td>63.7</td>
<td>76.9</td>
</tr>
<tr>
<td>1980</td>
<td>67.8</td>
<td>80.9</td>
</tr>
<tr>
<td>1990</td>
<td>72.3</td>
<td>83.6</td>
</tr>
<tr>
<td>2000</td>
<td>76.0</td>
<td>85.5</td>
</tr>
<tr>
<td>2010</td>
<td>78.4</td>
<td>87.1</td>
</tr>
<tr>
<td>2020</td>
<td>79.3</td>
<td>88.1</td>
</tr>
<tr>
<td>2030</td>
<td>80.4</td>
<td>88.8</td>
</tr>
<tr>
<td>2040</td>
<td>81.8</td>
<td>89.5</td>
</tr>
<tr>
<td>2050</td>
<td>82.7</td>
<td>90.0</td>
</tr>
</tbody>
</table>


The average remaining life expectancy for those reaching the age of sixty-five has increased as well. In 1940, the average remaining life expectancy for males reaching sixty-five was 11.9 years and 13.4 years for females. In 1990, the remaining life expectancy for sixty-five year old males and females was 15.0 years and 19.0 years, respectively.

Increase in the Number of "Very Old"

Increasing life expectancy in the population has led to growth in the number of
individuals reaching the age of eighty-five years or older. This category of individuals is often referred to as the “very old” and represents just over one percent of the total population (Suzman, p. 17). Current demographic trends indicate that individuals aged eighty-five and over are projected to grow more rapidly than the older population as a whole (Suzman, p. 21). The population aged eighty-five and over has higher levels of morbidity and disability than individuals in the sixty-five to sixty-nine range and tends to consume services, benefits, and transfers far out of proportion to their numbers (Suzman, p. 6).

**Increasing Life Expectancy-Financial/Operational Issues**

Increases in life expectancy have increased the total number of beneficiaries entitled to Social Security benefits without adding significantly to the number of covered workers (and therefore to taxable payroll) in the population. In addition, growth in the total number of the “very old” among the Social Security recipient population will also have an impact on the system because individuals in this group are more dependent on health and Social Security benefits for survival (Kingson and Berkowitz, p.103; Yacas, p.5).

**Fertility**

Fertility/birth rates are often cited as another major demographic factor impacting the Social Security System (Steuerle & Bakija, p. 45). The “total fertility rate” is often used to measure birthrate patterns in the United States. The Social Security System defines the “total fertility rate” as the average number of children that are expected to be born to a woman during her lifetime if she were to experience birthrates at a given age projected for a given year, and if she were to survive the entire child bearing period (OASDI Annual Report, p.143). Ultimately, the overall size of the labor force is determined by fertility rates. Graph
4.2 illustrates both historical and projected fertility rates over time.

**Graph 4.2**

**Total Fertility Rates**
**(1940-2050)**

![Graph showing total fertility rates from 1940 to 2050.](image)

- **Low Cost Projection**
- **Intermediate Cost**
- **High Cost Projection**

**Source:** 1995 Social Security Administration - Board of Trustees' Report. Note: Projected fertility rates are the Trustees' intermediate best estimate of future fertility trends.

Between 1930-1940 fertility levels dropped to relatively low levels compared to the fertility rates attained in the 1920s. Graph 4.2 illustrates that in 1940, fertility was measured at 2.23 children per woman. After World War II fertility rates soared. Between the late 1940s and the mid-1960s - the period dubbed “the baby boom” - fertility rates remained above 3.0 children per woman. In 1960 the fertility rate was 3.61. Following the baby boom, there was a sharp decrease in the fertility rate for women. In 1976, fertility rates dropped to an all time low of 1.74 children per woman. During much of the 1980s and 1990s the fertility rate has remained at or around 2.0. Due to the increasing percentage of women in the population who have never married, are divorced, and who are entering the workforce, fertility rates between the years 2000
Low Fertility - Financial Issues

Fluctuations in birth rates have produced a wide variation in the overall size of generations (or cohorts) within the population. Long term declines in fertility rates have contributed to reducing the total number of children in the population. Fewer children mean fewer workers relative to elderly persons in the population. Since Social Security transfers funds from present workers to former (retired) workers the differential between cohort sizes has created a potential financing problem for the system. Beginning in 2010 the “baby boom” generation will have to rely on the “baby bust” generation for support during their retirement. Due to the smaller size of the workforce in the “baby bust” generation, overall funding for the Social Security System will diminish. This in turn will have a depressing effect on the future financing of the system.

Beneficiary/Worker Ratio and Social Security System’s Cost Rate

The Social Security Administration has developed a ratio to estimate the number of beneficiaries supported by each worker. This ratio is called the beneficiary/worker ratio. There is a close relationship between the beneficiary/worker (which represents demographic trends in the population) and the cost rate for Social Security programs (OASDI Annual Report, p. 20).

The primary reason for rising costs in the Social Security System is that the total number of beneficiaries is projected to increase more rapidly than the number of covered workers. For example, during 1945, 41.9 covered workers supported each Social Security beneficiary. Over time this ratio has decreased to 3.3 covered workers per beneficiary in 1994 (OASDI Annual
Report, p. 20). Under three cost projections proposed by the Social Security Administration, this ratio is expected to decrease dramatically in the future. By the end of the seventy-five year projection period, the number of workers per beneficiary is projected to decline to 2.5, 1.8, and 1.3 workers for the low, intermediate, and high cost projections, respectively (OASDI Annual Report, p. 20).

_Labor Force Participation Rates_

_Trends toward early retirement for men and increased participation for women_

The labor force participation rate is often used as a measure of the percentage number of individuals in the population who are working. Table 4.3 below shows that over time there has been a trend toward early retirement among men.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>59.2</td>
<td>86.4</td>
<td>33.9</td>
</tr>
<tr>
<td>1960</td>
<td>59.4</td>
<td>83.3</td>
<td>37.7</td>
</tr>
<tr>
<td>1970</td>
<td>60.4</td>
<td>79.7</td>
<td>43.3</td>
</tr>
<tr>
<td>1980</td>
<td>63.8</td>
<td>77.4</td>
<td>51.5</td>
</tr>
<tr>
<td>1993</td>
<td>66.2</td>
<td>76.2</td>
<td>57.1</td>
</tr>
<tr>
<td>2005</td>
<td>69.0</td>
<td>75.4</td>
<td>63.0</td>
</tr>
</tbody>
</table>


While the labor force participation rates for men have declined over time, the labor force participation rates of women have increased dramatically. Table 4.3 illustrates this change. Steuerle and Bakija note that the increased participation of women in the workforce has been a major factor in reducing the financial burden on Social Security in the short run by offsetting decreases in the participation rates of men (p. 47).
**Immigration**

Aside from births, the only other way a population can grow is through immigration (Kutz, p. 39). More than a third of U.S. population growth has been attributed to immigration (Dunleap, p.1). Levels of immigration impact the Social Security System by influencing the overall size and composition of the workforce contributing to and beneficiaries receiving benefits from the Social Security System.

According to Ehrenberg and Smith, immigration may help mitigate the decline in the number of workers supporting each retiree. Since immigrants tend to be relatively young and of working age, an influx of immigrants can offset declines in the native workforce (p. 42). Current trends in immigration indicate that during the 1990’s the U.S. will experience the largest influx of immigrants ever (Dunleap, p.17). Table 4.4 below illustrates historical and projected immigration rates in the United States across time.

<table>
<thead>
<tr>
<th>Period</th>
<th>Annual Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1931-1940</td>
<td>0.4</td>
</tr>
<tr>
<td>1941-1950</td>
<td>0.7</td>
</tr>
<tr>
<td>1951-1960</td>
<td>1.5</td>
</tr>
<tr>
<td>1961-1970</td>
<td>1.7</td>
</tr>
<tr>
<td>1971-1980</td>
<td>2.0</td>
</tr>
<tr>
<td>1981-1990</td>
<td>3.1</td>
</tr>
</tbody>
</table>


**Composition of Immigrant Population**

Due to changes in U.S. immigration law recent immigrants have originated from economically less developed countries in Latin America and Asia. Table 4.5 below illustrates
the change in country of origin of immigrants over time.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Asia</th>
<th>Europe</th>
<th>Canada</th>
<th>Latin America</th>
</tr>
</thead>
<tbody>
<tr>
<td>1941-1950</td>
<td>3.6</td>
<td>60.0</td>
<td>16.6</td>
<td>17.7</td>
</tr>
<tr>
<td>1951-1960</td>
<td>6.1</td>
<td>52.7</td>
<td>15.0</td>
<td>24.6</td>
</tr>
<tr>
<td>1961-1970</td>
<td>12.9</td>
<td>33.8</td>
<td>12.4</td>
<td>39.2</td>
</tr>
<tr>
<td>1971-1980</td>
<td>35.3</td>
<td>17.8</td>
<td>3.8</td>
<td>40.3</td>
</tr>
<tr>
<td>1981-1989</td>
<td>41.6</td>
<td>11.0</td>
<td>2.3</td>
<td>41.9</td>
</tr>
</tbody>
</table>


According to Martynas Iacyszyn, the proportion of the workforce that was foreign born rose from 6.9 percent to 9.3 percent and immigrants accounted for more than a quarter of new labor market entrants (p. 5-6). On average, immigrant group members tend to be younger than the white resident population. Census tables from 1990 indicate that the median age for whites is 34.4 years, while the median age for Hispanics and blacks are 25.5 years and 28.1 years, respectively (p.30).

**Emigration Rates**

In order to estimate future financial status, Social Security assumes that thirty percent of all legal immigrants emigrate (Dunleavy, p.27). Current projections also assume that of those immigrants who chose to emigrate seventeen percent are eligible to receive Social Security benefits (Dunleavy, p.27). However, current trends in emigration indicate that emigration rates will be lower than in the past (Dunleavy, p.27). Emigration rates are predicted to drop due to an increase in the number of immigrants admitted through kinship ties and increased
investment among immigrants in US-specific skills (Dunleap, p.27). The longer immigrants stay in the United States, the more they will pay into the Social Security System.
V. PROPOSALS FOR REFORM

Senator Robert Kerrey (D-NE) and Alan K. Simpson (R-WY) are the primary advocates for the only Social Security reform legislation presently in front of Congress. The Kerrey-Simpson Proposal consists of eight bills aimed at curbing the growth of entitlement spending and reforming our federal retirement programs to promote savings and preserve the purpose and goals of these programs for future generations. The eighth bill of the series is the Strengthening Social Security Act of 1995, which is a comprehensive reform package that restores long-term actuarial balance to the Social Security System by updating it to reflect today's changing demographic, lifestyle, and savings patterns. It includes several components of the first seven bills, as well as other reforms to further strengthen and update the system. The eight provisions of Kerrey-Simpson's Strengthening Social Security Act of 1995 follow.

I. Establish Individual "Personal Investment Plans"

The first provision is to establish individual “Personal Investment Plans” (PIP) for each Social Security contributor. This plan would divert two percentage points of each taxpayer’s OASDI payroll taxes to their own personal investment program. A contributor can choose one of two investment categories for his or her PIP contribution: a type of "Thrift Savings Plan" or a model of an "Individual Retirement Account." Under the Thrift Savings Plan option, investors can choose to invest their PIP contributions in low, medium, or high-risk investment funds. The second option is for investment of their PIP contribution in investment vehicles currently permitted by IRAs, including stocks, bonds and mutual funds. This provision is intended to allow participants to earn higher rates of return on a portion of their Social Security payroll tax contributions, shift funds from Treasury securities to productive investment in the economy,
introduce more flexibility into retirement decisions, and increase personal and national savings.

It is not contentious to conclude that today's young and middle age workers could get much better returns on their Social Security retirement contributions if they were invested in the private sector instead of strictly in government securities. However, there is a problem accompanying the idea of establishing a PIP. Some authorities on the subject believe that people would change the amount of their "other" personal savings to reflect their government-mandated personal investment plans. If people were to view the amount invested in their PIPs as a substitute for personal savings, the overall amount of savings for retirement would be smaller than previously recorded. They would simply replace the money they would have saved for retirement before PIPs with the money in their newly created PIPs (Koitz, p. 9). Although one of the original premises of PIPs was to increase personal and national savings, it is apparent that the impact of PIPs would be ambiguous at best.

There is also the slim possibility that the average worker will not fare as well with investment in the stock market. PIPs, with their option of a Thrift Savings Plan (low, medium or high risk investment funds) or an IRA-type model, could falter with shifts in the economy. Therefore, making statements about what the "averages" are or will be ignores possible consequences for individuals. Stock investments can be highly risky and some investors will fall below the "average" that could have been achieved with investment in safer Treasury securities. To the extent that a substantial number of people make bad investment choices or the economy falters, and do poorly saving for retirement, society could find a larger number of elderly people relying more heavily on welfare programs and their children (Koitz, p. 11). Although only two percentage points of each contributor's payroll taxes would be set aside for PIPs, the possibility does exist for a stronger reliance on the government to accompany the higher return of the
"average" PIP contributor.

Chile began an interesting example of a completely privatized Social Security System in 1981. Due to the fragmented nature of their old system, its demonstrated inequities, and a high degree of administrative inefficiencies and expenses, Chile opted for a thoroughly new privatized system. Proponents argued that by placing the responsibility and reward on the individual rather than the State, a privatized system would reduce future demands on the government for financing the predicted high level of costs associated with the current system. Eventually, it would relieve the government from bearing much of the burden of supporting an increasingly elderly population (Kollmann, p. 3). Chile also established this system to help "unmask" the real costs of government programs. By not making these displaced resources available to the government to pay for other activities, officials hoped the public would soon become aware of the true costs of programs and begin to support a transition to budget cuts. This system would also relieve the contradictory mix of insurance and social welfare goals exhibited by the current Chilean Social Security System. Incidentally, it is plausible to conclude that the recent high growth rate in Chile is attributable to the influx of private investment due to the change to the private Social Security System. Overall, based on the experiences of Chile and a completely privatized system, it would be advantageous for the United States to begin a similar program, albeit on a much smaller scale.

2. Accelerate the Currently Scheduled NRA Increase to Age Sixty-seven, Further Increase the NRA to Age Seventy for Persons under Age Twenty-nine; Increase Early Eligibility Age (EEA) from Sixty-two to Sixty-five and Establish Link to Normal Retirement Age; Index Both NRA and EEA after 2030

The second provision is a slight modification that will accelerate the date the Normal Retirement Age reaches age sixty-seven by eliminating the twelve-year plateau during which the
NRA will remain at age sixty-six. The NRA would continue to increase by two-month increments until it reached age seventy for those persons currently under age twenty-nine. The most functional part of the legislation is the fact that no one over the age of fifty-one would be affected, allowing those citizens who are affected sufficient time to plan for this change.

In addition, this proposal would also increase the Early Retirement Age. Beginning in the year 2000, the ERA will increase at a rate of two months per year until reaching age sixty-five in 2017. This would directly correspond to the rise in the NRA from sixty-seven to seventy and preserve the five-year spread and the 70 percent of full benefit designation for those who presently choose early retirement. After 2030, the NRA and ERA would continue to increase at a rate of one month for every two years. This automatic increase will maintain the ratio of years in the workforce and years in retirement as life expectancy continued to rise.

As previously mentioned, with life expectancies increasing and people working further into their later years, this provision of Kerrey-Simpson is a very practical solution to assist in restoring actuarial balance to the Social Security System. With the ever-increasing wealth of the near-elderly and the younger-elderly, it is highly doubtful that the original drafters of Social Security intended to devote such a large share of resources to groups so well-off (Steuerle and Bakija, p. 196). It should also be noted that an increase in the retirement age could affect low-income individuals too harshly. Low-income individuals have shorter life expectancies than do high-income individuals which therefore could prevent them from collecting their appropriate Social Security compensation. There is also the issue revolving around the “average” person. Although the average person in their sixties is economically better off than the average person in the rest of the population, it is exactly what it says, the average. The elderly and the near-elderly are a heterogenous population that have their share of needy people and people with reduced
work capacity. It is quite apparent our program of Social Security for everybody is an expensive way of trying to meet the needs of some (Steuerle and Bakija, p. 200).

The retirement ages established by Social Security are an important symbol about when people ought to retire. There is little harm with the change proposed by the Kerrey-Simpson legislation since it does not affect people over the age of fifty-one. Therefore, it would be among the most painless of the proposals to reform Social Security, although the issues of the “average” person and low income people are still prominent on the agenda.

3. Limit Social Security COLAs to the Adjustment for the Social Security Beneficiary in the 30th Percentile of Benefits

The third proposal of the Kerrey-Simpson legislation would assist in containing the overestimation inherent in the cost of living adjustments (COLAs) measured by the Consumer Price Index. This would limit Social Security COLAs for beneficiaries whose benefits are above the 30th percentile of benefits paid. Although everyone would continue to receive a COLA, those over the 30th percentile would receive a flat dollar amount equal to the COLA due beneficiaries at the 30th percentile.

With this provision, the income of the wealthy elderly would fall even faster as they aged. Since needs tend to increase and abilities tend to decrease at older ages, one would expect that a progressive need-oriented system such as Social Security would attempt to increase real benefit levels over the aging process, rather than decrease them. This proposal cutting back on COLAs moves the system in the opposite direction, but only for those above the 30th percentile of beneficiaries. The assumption underlying this provision is that most retirees have sources of income other than Social Security and should be expected to rely more heavily on those as they
grow older and real income decreases. Overall, this provision would add to the progressivity of our Social Security System and ensure that those who rely almost entirely on Social Security for their sustenance would not be affected (Steuerle and Bakija, p.179).

4. Limit Social Security COLAs to the CPI less 0.5 Percentage Points

The fourth provision is employed to control the exaggerated effects of the CPI. Due to the fact that the many observers believe the current CPI formula overstates the cost of living increases by up to 1.5 percentage points, adjustments based on the CPI would be calculated at the CPI less 0.5 percentage points. To accompany this change and address the far-reaching ramifications of overstatements of the CPI, the Kerrey-Simpson legislation would assemble an expert panel to study the accuracy of the current CPI measure and report recommendations within one year to the Secretary of Labor and Congress. The panel will consist of three members appointed by the Director of the Office of Management and Budget, three members appointed by the Director of the Congressional Budget Office, and the Chairman of Federal Reserve Board. When the panel completes its work, its findings will supersede the previous action on the CPI in this provision.

5. Adjust Formula for Determining Primary Insurance Amount

Adjustments to the formula used in determining the primary insurance amount is the fifth provision of this legislation. The primary insurance amount (PIA) and the average indexed monthly earnings (AIME) are the two calculations used to determine the amount of a worker’s initial Social Security benefit. A progressive formula is applied to the AIME to determine the PIA. The PIA is the basic monthly benefit payable to a worker retiring at the NRA.
For a worker becoming eligible in 1994, the PIA formula was the total of ninety percent of the first $422 of the AIME; thirty-two percent of the next $2,123 of the AIME and fifteen percent of the AIME above $2,564. The dollar amounts at which the percentage rates in this formula change are referred to as “bend points”. What this provision would do is modify the benefit formula over a twenty-five year period beginning in 2030. A third bend point above the point where the current 15 percent bracket begins would be added. A new ten percent rate would be added to the extent the AIME exceeds the new bend point. Over twenty-five years, the fifteen percent bracket would be replaced with the ten percent bracket and the thirty-two percent bracket would be partially replaced with the fifteen percent bracket. What this provision accomplishes over time is to raise the bend points and effectively reduce benefit levels.

The current benefit formula is progressive in nature. Therefore, this formula yields benefit levels that are proportionately higher for low earners than for high earners and redistributes income from high earners to low earners. The modified benefit formula proposed by Kerrey-Simpson will add even more to the progressivity of the system. Higher earners will continue to subsidize the benefit levels of lower earners by effectively receiving even lower rates of return on their Social Security contributions (U.S. GAO, p. 16). Ultimately, the adjustment in the primary insurance amount will assist Social Security in adhering to its original premise of providing for those elderly most in need.

6. Modification of Spousal Benefits

The modification of spousal benefits is the seventh provision of the Kerrey-Simpson legislation. It would gradually reduce the Social Security spousal benefits for new beneficiaries from a maximum of fifty percent to a maximum of thirty-three percent of the PIA. This provision
would increase equity within the system between one and two-earner families. The reduction would start in the year 2000 and be phased down at one percent per year. This provision applies only to survivor benefits which means that it does not affect widows or benefits resulting from a spouse’s own earnings.

If our system followed the principle where benefits were directly related to contributions, the provision of spousal benefits would not be a part of Social Security. The only way spousal benefits could be justified would be to require those affected to pay higher premiums during their working years. Spousal benefits also are not justified on the principle of horizontal equity. It does not treat equally those in equal need, provide equal rates of return on past contributions, or even treat all spouses equally (Steuerle and Bakija, p. 209). Therefore, consideration for reducing spousal benefits from fifty percent to thirty-three percent of the PIA is justified.

7. Redirect Revenues Received from Taxation of Social Security Benefits from HI Trust Fund to OASI Trust Fund

The seventh provision of the legislation would redirect the revenues received from taxation of Social Security benefits. A second tier of Social Security benefits included for tax purposes was created in the Omnibus Budget Reconciliation Act of 1993. It applied to taxpayers with “provisional” income greater than $34,000 for singles and $44,000 for married and joint tax filers. Eighty-five percent of the excess of the taxpayer’s provisional income is taxable and currently deposited in the Hospital Insurance (HI) Trust Fund. The Kerrey-Simpson proposal would re-direct this revenue to the Old Age Survivors Insurance (OASI) Trust Fund.
8. Invest a Portion of the OASDI Trust Funds in Equities Beginning in 1998

The final provision of the legislation cultivates the new cascade of funds in the OASDI Trust Fund. It would begin to invest a portion of the assets into a stock index fund. The phase-in period will last 15 years which will ultimately result in twenty-five percent of the Trust Fund assets in these alternative investment opportunities. As a result of this shifting of investment approaches, the Trust Fund should earn a higher return as well as investing in productive assets and businesses in the economy.

Other Reform Ideas

Aside from the reform proposals in the Kerrey-Simpson legislation, there are two other options being discussed in Congress, although no formal legislation has been drafted. One opportunity for reform is to increase each contributor’s Social Security payroll tax rates. Payroll taxes are the principal source of dedicated revenues for Social Security and Medicare. Unfortunately, any increase in payroll taxes imposes a disproportionate affect on low- and moderate income working families. It is also important to note that many workers today have lifestyles and consumption levels below those of many of the Social Security recipients they are supporting.

Most people in their sixties are presently better off economically than most of the families paying to support their retirement. Although higher payroll taxes might be the most politically expedient action since low- and moderate-income wage earners generally do not possess a high level of political influence, it would also serve to exacerbate the problem of child poverty in our society. In terms of economic efficiency, it is important for society to evaluate where governmental resources are most valued. Although, it would be absurd to conclude that no
payroll tax increases are called for even with the impending retirement of the baby boom
generation, this reform would have to work concomitantly with other reforms that raise the
welfare of those incurring the greatest part of the new tax burden.

Another reform option being discussed in the halls of Congress is based on the same idea
as the first provision of the Kerrey-Simpson legislation. A number of House Republicans are
examining the possibility of establishing a Personal Investment Plan (PIP) by diverting five
percentage points of each taxpayer's OASDI payroll taxes into their own personal investment
program. Although this boosts the level of personal control and expands the opportunity to earn
more income for retirement, it magnifies the risks previously discussed in the Kerrey-Simpson
legislation. Taxpayers with such a large degree of latitude over a great deal of their payroll taxes
will be more subject to fluctuations in the economy. A five percentage point PIP could result in
even more taxpayers eventually relying heavily on the government for retirement income.

Establishment of a PIP of this size could also serve to lower overall national savings as people
substitute their PIP for other forms of personal savings. The costs and benefits of instituting such
a plan would have to include all the aforementioned complexities.

1994-1995 Advisory Council on Social Security

Incidentally, there is a reform plan being formulated by the 1994-95 Advisory Council on
Social Security, which is chartered through the 104th Congress. Although their report has not
been submitted to the Speaker of the House, Newt Gingrich (R-GA) or the Secretary of Health
and Human Services, Donna Shalala, early word is that the Advisory Council will recommend
two reforms to our present Social Security System. One reform was previously discussed in the
Kerrey-Simpson legislation, the idea of privatizing a certain percentage of Trust Fund reserves.
By moving the Trust Fund to investment in the private economy, it should earn higher returns and assist in the strengthening of infrastructure and businesses.

The second Advisory Council idea will reportedly advocate the establishment of a double-decker Social Security System. The first level would provide a universal flat benefit for all retirees that would provide adequate benefits for even low-income workers. The second level will be based on the trust fund contribution made by each taxpayer during his employment years.

Your level of benefits would be based on your contribution level; the higher your amount of contributions, the higher your level of benefits upon retirement. The Advisory Council's Report should be published in January, 1996.

A detailed impact analysis of the Kerrey-Simpson legislation will focus on four of the previous proposals: instituting personal investment plans (PIPs), accelerating the scheduled increase of the NRA to age sixty-seven, establishing a cap on Social Security COLAs at the 30th percentile of benefits, and adjusting the CPI to control its inherent overstatement. These reform proposals were chosen because they represent the most politically feasible, popular reform proposals currently drafted in legislation.

Presently, PIPs are very popular because they allow individuals more control over their investment decisions. In light of the United States' demographic trends, such as rising life expectancies, it is increasingly more likely that the NRA will need to raised to maintain stability in the worker to retiree ratios. Adjustment to the CPI and caps on COLAs are likely due to discussions about the overstatement of the CPI and its potential budgetary savings in the future.
VI. IMPACT ANALYSIS

IMPACT ANALYSIS: S.824 PERSONAL INVESTMENT PLAN ACT OF 1995

Current Situation of Virginia Retirement System Members

Virginia Retirement System members currently participate in the U.S. Social Security System. Benefit levels received upon retirement are based on the past employment history of each VRS member. Upon retirement fully insured workers receive a monthly benefit for life. Automatic cost of living adjustments (COLAs) offset the impact of inflation on retirement earnings. OASDI payroll taxes collected by the Social Security System are either directly paid out to current beneficiaries or invested in government treasury bonds.

VRS specific figures concerning the average monthly benefit level are currently unavailable. However, national average monthly benefit levels for all retired workers as of January 1995 was $698 and $1,178 for retired workers and their spouses. Since Virginia incomes are traditionally higher than the national average we assume that the average monthly benefit level for retired VRS members will be higher than the national average.

Proposed Changes to Social Security System Under S.824

S.824 amends the 1986 Internal Revenue Code to allow for the creation of optional personal investment plans for (PIPs) for employees. Covered employers are required to establish a payroll deduction plan for withholding an employee’s contribution to his or her Personal Investment Plan. Under this bill employees contribute an amount equal to two percentage points of wages received during the current tax year (beginning on January 1st) to a PIP plan. Personal Investment Plans may be either a personal investment retirement plan administered by the Social Security Administration’s Personal Investment Fund or any individual retirement plan administered or issued by a bank such as an IRA. Social Security payroll tax rates are effectively
lowered for PIP participants from 6.2 to 4.2 percent on wages received after January 1st of the current tax year. Civil penalties are established for employers for failing to establish or properly administer a PIP payroll deduction plan.

S.824 also creates a Personal Investment Fund Board within the Social Security Administration. The board is responsible for overseeing PIP deposits under the Personal Investment Fund option. The organization and functional duties of the Personal Investment Fund Board are identical to the Federal Retirement Thrift Investment Board.

**Economics Literature: Effect of Social Security Benefit Levels on Retirement Decisions**

Overall Social Security benefit levels have a direct effect on an individual’s decision to retire. According to Ehrenberg and Smith, a worker’s incentive to retire is affected by three factors: (1) the present value of income available over his or her remaining life expectancy; (2) the change the level of income available if retirement is delayed; (3) preferences regarding leisure and goods and services that can be purchased on retirement income (p. 231-232). Overall, economic studies indicate that increases in monthly Social Security retirement benefits promote early retirement by lowering the probability of an individual’s labor-force participation (Lanais, 50).

**Assumptions**

- Virginia Retirement System members will behave similarly to the sample of Social Security beneficiaries examined in previous economic studies on effects of Social Security benefit levels on retirement decisions.
- Formulas used to calculate VRS retirement benefit levels will remain unchanged.
- Individual investment decision of workers with private 401(k) plans will be similar to investment decisions made by public sector workers.
Estimated Impact on Virginia Retirement System

Increased Administrative Costs for VRS

- Potential increase in agency personnel costs for registering current VRS employees for PIP payroll deduction.

S.824 all employers will be required to establish a payroll deduction plan for withholding an employee’s contribution to his or her Personal Investment Plan. If S.824 passes, the Virginia Treasury Department will probably assume the on-going administration of payroll deduction.

However as an employer, VRS will be required to cover the cost of initially enrolling employees in Personal Investment Plans and the paperwork leading up to establishing payroll deduction.

- VRS Field Services may need to develop communication and education campaign to inform VRS members about changes under S.824.

S.824 requires the Social Security Administration to prepare and distribute to all eligible individuals a pamphlet providing a description of the PIP program, provide toll free assistance for individuals who might have additional questions concerning the program, and ensure media coverage on program changes. VRS may need to supplement the communication and education campaign efforts of the Social Security Administration in order to make sure that VRS members are aware of potential impact of changes in the administration of their Social Security benefits.

- VRS may need to enhance counseling services in order to provide members with adequate financial planning advice concerning PIP investments.

Under the current Social Security System, beneficiaries make no decisions concerning the investment of the money they pay into the program through payroll taxes. Under the PIP program individual members will have the option to directly control the investment of a portion of their retirement income in low, medium, and high-risk investment funds. Some VRS members may not fully understand the magnitude of the responsibility they have been handed and may
require assistance in deciding how to pick the appropriate investment mix for their Investment Plan.

**PIPs Have the Potential to Influence Savings Patterns of Some VRS Members**

Personal savings as a percent of disposable personal income in the United States has fallen over the last decade -- from a high of eight percent in 1984 to a low of four percent in 1993. Recent studies by the Employee Benefit Research Institute indicate that the savings rates are lower for baby boomers than the savings rates of the previous two generations (EBRI, p. 1).

One potential impact of PIPs is to increase personal savings levels of Social Security participants. J. Skinner and R.G. Hubbard reviewed a series of studies concerning the effectiveness of saving incentives and found that in the long run, 401(k) plans and IRAs have a positive impact on saving behavior (p. 10). However, other economists have noted that there is a potential for individuals to replace personal savings accumulated before the creation of PIPs with money invested in PIPs (Koitz, 9).

The financial impact on VRS is at best ambiguous in that the impact will depend on the cumulative effect of savings and investment decisions of individuals in the retirement system. If, for example, an individual’s savings and PIP investments yield an increase in monthly Social Security levels he or she might be more likely to retire early. If an individual retires early from state service then VRS retirement payouts will be lower over the individual’s life expectancy. On the other hand, an individual’s saving and PIP investment decisions lower his/her monthly retirement benefit levels an individual will be more likely to remain in state service longer. Longer service by a state employee potentially results in higher retirement benefit levels paid out by VRS.
Impact of PIPs on the Retirement Decisions of VRS Members Will Vary

According to recent Congressional testimony, it is impossible to predict how individuals will react to the creation of Personal Investment Plans. However investment trends in 401(k) plans in the private sector can provide guidance on how state employees may react to the creation of a plan where investment decisions are guided by the worker.

Current trends in 401(k) investments indicate that many Americans do not do a good job of managing their own investment plans. Currently, at all income levels, few workers save enough for retirement and, generally speaking, people make bad investment decisions. Most workers tend to favor lower-yielding investments like money market funds and Treasury bills. Investors also shun stocks, which out paced inflation and produce higher yields. Overall workers do not diversify investments or make investments which will protect against inflation. J. Carter Beese Jr., a Commissioner of the Securities and Exchange Commission specializing in 401(k) plans warns that, “A lot of participants in 401(k) plans are not doing a good job. They are not investing well and leagues of them may be retiring at subsistence levels for their 401(k) plans” (p. A8). Given current trends in 401(k) plans there is a potential that some VRS members could be left with insufficient retirement savings.

The overall impact of worker PIP investment decisions on the VRS is ambiguous. If an individual’s PIP investments decrease or fail to keep pace with inflation a worker will be more likely to remain in state service and accrue additional VRS service credit. If an individual’s PIP investments out pace inflation resulting in an increase in benefit levels, an individual will have an incentive to retire early from state service. Early retirement will reduce the amount of retirement benefits paid out by VRS.
Current Federal Law

Under current law the NRA is scheduled to increase gradually from sixty-five up to sixty-seven starting in the year 2003. There is a twelve-year plateau during which the NRA remains at age sixty-six. (See Figure 3.1 in Section on Current Social Security System.) The age for early retirement is sixty-two.

Current Situation of the VRS

Members become vested after five years of service. Members with thirty years of service are eligible to receive benefits as early as age fifty-five, or under the 50/10 Plan as early as age fifty with ten years of service, albeit with reduced benefits. Full benefits are paid at sixty-five with at least five years of service. For members with fewer than 35 years of service, the retirement benefit is based on the Average Final Compensation (AFC), which is the average of a member’s highest thirty-six consecutive months of salary and total years of service. (VRS, p. 20)

According to the 1995 Comprehensive Annual Financial Report of the Virginia Retirement System, among all retirees at June 30, 1995, most retire between the ages of sixty and sixty-five. The breakdown is summarized by the following table.

Figure 6.1

<table>
<thead>
<tr>
<th>Distribution of Retirees by Age at Retirement, 1995 Retirees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 65</td>
</tr>
<tr>
<td>60-65</td>
</tr>
<tr>
<td>55-59</td>
</tr>
<tr>
<td>Under 55</td>
</tr>
</tbody>
</table>

As of June 30, 1995, there were 78,088 retirees. Of those, 25,557 receive a retirement benefit amount in excess of $1,001.

**Economics Literature**

According to Steuerle and Bakija, the Social Security Normal Retirement Age is important to people as a symbol of the appropriate age to retire. History offers “circumstantial evidence” that the development of Social Security had an impact on American retirement patterns. Traditionally, people’s retirement ages are “bunched” around sixty-two and sixty-five, the early and normal retirement age for Social Security, respectively (Steuerle, p. 199).

Ehrenberg and Smith suggest that a life-cycle perspective is necessary when considering workers’ retirement decision. The incentives facing workers would be the present value of their income over remaining life expectancy, the change if retirement is delayed and preferences regarding leisure and goods (Ehrenberg and Smith, p. 231-232).

In his review of about one hundred empirical retirement studies, Michael Leonesio found that Social Security has a statistically significant effect on the timing of retirement, but that the influence is not very significant big when compared with other factors that determine the retirement decisions of workers. He determines that changes, such as the increase in the retirement age, that are politically feasible are unlikely to produce large changes in retirement patterns.

“On average, the influence of Social Security’s normal retirement age on the timing of retirement also appears to be modest” (Leonesio, p. 50). Gustman and Steinmeier estimated the effect of raising the NRA to sixty-seven, while increasing the penalty for early retirement at age sixty-two. They expected an increase in the percentage of men working full time at ages sixty-five and sixty-six to be about four to six percentage points. This translates into an increase in the
average retirement age of about two months. Fields and Mitchell simulated the effect of raising the NRA to sixty-eight. They found an increase in the average retirement age of 1.6 months. Burtless and Moffitt reported an increase of 2.4 to 4.5 months.

Assumptions

The first major assumption required is that VRS members are similar to the general population in the country in the sense that Social Security will be the largest source of their retirement income. While this is potentially problematic, it is uncertain whether it over or underestimates the reliance of VRS members on Social Security income in their retirement. The national average figures cite “other pension” as a category of income. While all VRS members will have income in this category, some other individuals will have none and others will have very high levels.

A second assumption is that the studies that have been done on the labor force participation decisions of men are generally transferable to a population that includes women. Nearly all of the retirement studies have focused on white male workers. More than half of active VRS members are female at 62.3 percent. Of retirees only 57.3 percent are female. While we can obtain data on gender, data on the race of VRS members was unavailable to us.

Finally, in using the above estimates of increase in age of retirement, we are assuming that studies of increases from sixty-five to sixty-seven are similar to what the increase would be for a change from sixty-seven to seventy.

Estimated Impact on VRS Members

First, since no one over fifty-one would be affected by this proposal we calculated the number of VRS active members currently fifty-one and under. Using data obtained from the Virginia Retirement System on the birth year of VRS members, we calculated the number of
members born in 1945 or later. We found 203,913 active members are fifty-one and under. In Fiscal Year 1995, there were 262,300 active members. About 77.7 percent of current VRS active members are fifty-one and under and thus would be affected by the acceleration in the increase in the NRA.

Then, since the proposal would increase the NRA to seventy for persons under twenty-nine, we calculated the number of VRS members currently under twenty-nine. We found 26,692 VRS members under twenty-nine. That is, about 7.8 percent of VRS members are under age twenty-nine and would be affected by increasing the retirement age to seventy.

The proposal includes indexing the NRA to life expectancy after 2030. This proposal would keep the ratio of workers to retirees in the VRS more stable as life expectancies continue to increase.

A sensitivity analysis calculation of the potential impact on the VRS can be estimated using low, medium, and high empirical estimates of increase in age (1.6, 2.5, and 4.5 months). If the 26,692 VRS members under twenty-nine respond to the increase in the NRA to age seventy by working on average 1.6 months longer, the VRS will continue to receive their contributions of 5 percent of salary and not pay out benefits for a total of 42,691.2 months (3,557.6 years). If members under twenty-nine work 2.5 months longer the total impact on VRS will be 66,730 months (5,560.8 years). If members under twenty-nine work on average 4.5 months longer, the total impact on VRS would be 120,114 months (10,009.5 years).

Since thirty-one percent of all retirees at June 30, 1995 had twenty-one to thirty years of service and thirty-three percent had eleven to twenty years of service, a rough approximation of average years of service would be twenty years of service (Annual Report, p. 69). A similarly rough approximation of the average final salary is $20,000. It is important to note that to some
extent the increase in the actuarial balance from fewer months paid out and more months of
correction would be offset by higher average benefits when workers do retire. Since people
would presumably be working longer, their benefits when they do eventually retire would be
higher because of their increased total years of service and higher average final compensation.

In general, in can be expected that to the extent this reform improves the actuarial balance
of Social Security, increasing the NRA will have a positive effect on the actuarial balance of the
VRS. Leonesio’s conclusion, however, is that while the NRA sends a signal about expectations
of society about when to retire, there is “no solid evidence that this would be the case” (p. 56).
IMPACT ANALYSIS:  
S. 821 and S. 822

LIMIT HIGHER END SOCIAL SECURITY 
COLAs AND RE-EXAMINE EFFECT OF CPI

Two of the most prominent issues on the Social Security reform agenda revolve around instituting changes in cost-of-living adjustments (COLAs) and adjustments to the Consumer Price Index (CPI). Although both reforms would be initiated immediately, each targets different groups. The proposed reform that limits COLAs for the top seventy percent of beneficiaries, focuses solely on those that receive substantial amounts of benefits. Conversely, the expert panel chartered to study the overstatement of the CPI would not concentrate reform on a specific group but would advocate pivotal, far-reaching reform for all entitlement recipients. In the event that both of these reforms are implemented, the wealthiest segment of Social Security would not only have their COLAs capped at the 30th percentile of benefits, but also would see their real welfare level decreased with the elimination of the inflated CPI.

Current Federal Law

The CPI is not a cost of living index, although it is used as a measure of the rise in the cost of living. Monthly benefits paid to Social Security beneficiaries are automatically increased annually for changes in the cost of living as measured by the Consumer Price Index. The increase in benefits for January, 1995 was 2.8 percent.

Current Situation of the VRS

The Virginia Retirement System currently uses a modified version of the CPI to measure its cost-of-living increases. This consists of the first three percent of the increase in the CPI plus half of each percentage increase from three percent to seven percent. VRS is accounting for the inherent overestimation of the CPI by only accepting half of any increase between three and seven percent. If reform is made at the Federal level to create a more
accurate CPI, VRS will have to amend it bylaws in order for members to maintain constant purchasing power. However, any reform introduced will enact a double penalty on current beneficiaries, through both Social Security and VRS.

Economics Literature

The indexing of benefits maintains a beneficiaries' level at a constant real value, or purchasing power, from age of retirement to age of death (Steuerle and Bakija, p. 179). With the aging process, the incomes of the elderly already tend to fall relative to average incomes in the economy. The proposed cap on COLAs would cause the income of the top seventy percent of elderly to fall even faster as they age. However, the top seventy percent of beneficiaries would still receive a COLA that represented a flat dollar amount equal to the COLA due beneficiaries at the 30th percentile. That is the positive provision in this proposal; every beneficiary would still receive a COLA to maintain a somewhat constant benefit level. For this reason, the cap at the 30th percentile includes real benefit “cuts” that are moderated by little impact on poor, elderly beneficiaries, the original population that Social Security was enacted to prevent from destitution and dependency. Reform to the CPI would have far-reaching ramifications for all current beneficiaries, effectively dropping overall welfare if the CPI no longer inflates cost-of-living increases. For new members, the effect of a change in the CPI would be negligible because cost-of-living increases would now be measured more accurately, not underestimated.

Assumptions

There is a general consensus among economists that the CPI, the measure Social Security bases its benefit increases on, is imprecise. Any reform to COLAs has to begin with a fundamental change of how the CPI is computed. The panel established in the Kerrey-Simpson
legislation addresses this situation after a year of study. Therefore, a working assumption is that the CPI overestimates cost-of-living increases by up to 1.5 percentage points.

This impact analysis will also generalize impacts for the four categories of VRS members: state employees and employees of political subdivisions, teachers, state police, and judges; sorting them into categories that might not specifically signify their economic status. Although there is no exact computation for the 30th percentile of benefits, it is estimated to fall on those beneficiaries at the lower end of the income distribution.

One final, overriding assumption is that, in the very near future, benefit levels will not be preserved as the retiree grows older; or, that inflationary pressures are imminent.

*Estimated Impact on VRS Members*

With the distribution of VRS membership consisting of state employees and employees of political subdivisions, teachers, state police officers, and judges, we are able to discern the effect of the proposed changes upon each group. The fact that benefit levels might not be maintained over time figures prominently in the entire decision process. With the data that are available about the composition of each group in the VRS membership, distinct retirement patterns should emerge around each classification.

The first VRS retirement category is state employees and political subdivision employees. What VRS data demonstrate is that this group does not retire in overwhelming numbers until age sixty-five. That is the first point at which a majority of this group retires. Given what we know about years of service for the typical 1995 VRS retiree, 54 percent worked over twenty years in the system. We have to assume that a sizable portion of political subdivision employees are fully vested in the VRS and therefore have a substantial level of benefits accrued from Social Security payroll taxes. In terms of compensation through state
employment, this category is generally on the lower end of the pay scale. There are 43,456
state and political subdivision employees earning $2,000 or under per month, or twenty-eight
percent of the total. Those earning between $2,000 and $3,000 per month total 82,825, or
fifty-four percent of all employees in this category. Therefore, eighty-two percent of state and
political subdivision employees earn $36,000 per year or less.

In terms of the first reform, limiting COLAs to a maximum at the level of the 30th
percentile, this particular group of VRS retirees would seem to straddle this 30th percentile,
leaving some worse off and others no worse off in terms of welfare. With a further breakdown
by a more specific job category, results would be more discernable. However, it is reasonable
to conclude at least twenty-eight percent of the VRS members in this category would not be
affected by the cap on COLAs at the 30th percentile; that is they would fall below that benefit
level. For this category of VRS members, there would no increased reliance, or only a slightly
increased reliance on VRS benefits in retirement if this reform was implemented.

As for the change in the overstatement of the CPI, all retired VRS members are worse
off, comparatively, since they had previously been receiving adjustments based on an inflated
version of the CPI. However, if the estimate is computed correctly and yields a fair and
equitable adjustment for the cost of living, no one would be at a lower, real level of welfare.

For the teacher category of the VRS, many of the same conclusions hold. Teachers
would comprise the group that would split the 30th percentile, with significant portions on
either side, meaning that some would be affected while others would be no worse off. This
results from the teacher classification consisting of large numbers of members with lengthy
employment and salary histories and others employed for a relatively short period of time with
no discernable income to report.
Only 16,056 or fifteen percent of the teacher members of VRS fall in the $2,000 or under per month income category while between incomes of $2,000 and $4,000 there are 64,062 teachers or sixty percent of their total. Based on these numbers, significant quantities of teachers would fall on either side of the 30th percentile of Social Security benefits and therefore some would be effected while others would fall below the designated percentile. As for those who do reach a benefit level slightly above the 30th percentile, the welfare loss would be slight due to the fact beneficiaries would still receive COLAs for that level of benefits. A slight increase in the reliance on VRS benefits for teachers will result if the cap is placed on Social Security COLAs at the 30th percentile. Again, the change in the computation of the CPI will result in no welfare change for those not yet retired, but leave those who were receiving the inflated version worse off.

The State Police subdivision of the VRS membership offers a generally higher income category than most other VRS members. Therefore we can almost be assured that any cap on COLAs would have a devastating effect on the Social Security benefits of this group. Since State Police would usually fall above the 30th percentile, any restriction of COLAs would decrease the welfare of beneficiaries. Due to the fact State Police are heavily affected by this reform, a stronger reliance on VRS benefits for this group will result.

State Police members of VRS have only forty-four members in the $1,000 and under income category, or three percent of their total. Over seventy-eight percent of Virginia State Troopers earn above $2,000 but below $4,500 per month. Therefore, it is plausible to conclude that the vast majority of VRS members in this category would be above the 30th percentile in Social Security benefits and lose welfare under this reform enactment.

Judges in the VRS system will also become more reliant on VRS funds upon
retirement. Since they are the highest paid category of VRS members, we can be sure they will be most profoundly affected by the cap on COLAs introduced in the reform legislation. A decrease in the overall retirement welfare of judges will result, and prompt a provisional shift in dependence from Social Security to VRS.

The judge classification of VRS is composed of only 376 members. However, this category will incur the most definitive shift in reliance to VRS benefits because their income levels are far above the 30th percentile level of benefits. No judge earns less than $7,500 per month, which places this category in the upper echelon of VRS members. This income level would therefore be the most profoundly affected by the cap on COLAs and its impending reduction in real benefits.

Conclusion

Although VRS benefit levels are not directly linked by formula or law to Social Security benefit levels, we have determined that the proposed reforms to the Social Security System may have an impact on the overall administrative costs and financial balance of the Virginia Retirement System. The direction and magnitude of the impact on the VRS, however, will depend on the individual retirement decisions of VRS members. We are fairly certain that there will be an impact on the administrative costs of VRS should the Personal Investment Plan Act of 1995 (S. 824) pass Congress. We are less certain about the impact of PIPs on the savings and retirement decisions of VRS members - the decisions of VRS members may increase or decrease the financial responsibility of the VRS to retirees overtime. If the retirement age is accelerated and eventually increased to 70, as proposed under S. 818, we predict that members of the VRS may elect to remain in state service longer, accruing additional service credits and higher benefit
levels upon retirement. We expect that reduced time in retirement by VRS members will improve the long term actuarial balance of the VRS. In terms of S. 821 and S. 822, the restoration of accuracy to the CPI will have an effect on those currently receiving retirement benefits, although little welfare loss will be accumulated by those not yet in their retirement years. Instituting a cap on COLAs at the 30th percentile of benefits will effect those in higher income brackets while leaving little impact on low income beneficiaries.
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REFERENCES


### IMPORTANT ACRONYMS

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<thead>
<tr>
<th>Acronym</th>
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<td>Consumer Price Index</td>
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