Pension Reform for Virginia

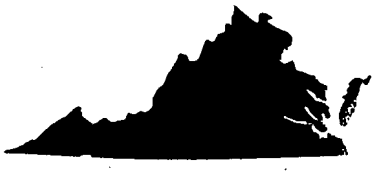
by Peter Ferrara

Introduction

by Robert C. Carlson

"...a state employee making $30,000 a year after 20 years...could make $33,000 a year more..."

A Study Commissioned by
The Thomas Jefferson Institute for Public Policy



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Foreword

In an on-going effort to offer creative alternatives for better government in Virginia, the Thomas Jefferson Institute for Public Policy commissioned this study on the Virginia Retirement System (VRS). The long-term financial health of state and local government employees should be a major concern to our elected leaders.

This study was completed prior to the recent announcement by Edwin Burton, III, chairman of the VRS, that he will ask the legislature to consider an optional 401 (k)-type pension plan for new state employees. And the federal government announced on June 29th that its workers have until the end of this year to change retirement systems in order to take advantage of the opportunities offered by investing in the business world.

According to the author, state employees would be more financially secure if they had the option of investing their retirement funds in more productive ways than is currently available. The author also promotes the idea that the retirement funds should be owned and controlled by the employee and not the VRS. There would be certain limitations on investment possibilities and an emphasis on education in financial investing similar to what private sector companies offer. State employees would have the option to change from the current system to the new defined contribution plan.

This study illustrates why the VRS should change from a defined benefit system to a defined contribution system.

The author makes a philosophical case for the change to a defined contribution plan and shows in four tables at the end of the study the significant differences in annual retirement payments between the current plan and his proposed alternative.

For instance, a state employee making $30,000 a year after 20 years of employment with the state or local government could make $33,000 a year more under the author's proposed alternative than under the current state pension system. That same employee working for 30 years, could make $29,500 more annually during retirement. The author's calculations are outlined in the tables at the end of the study and are based on investment returns substantially less than the average return in the stock market over the last 70 years.

This study is offered in order to generate public discussion on this very important issue. The ideas and conclusions in this study are those of the author and do not necessarily reflect the opinions of the Thomas Jefferson Institute for Public Policy or its Board of Directors.

Michael W. Thompson
Chairman and President
July 1998

INTRODUCTION

State and local government pension funds were ideal for the era in which they were designed — the 1950s. At that time, workers often expected to spend their entire careers with one employer, and pension plans were designed to reward longevity and discourage job-changing. Defined benefit pension plans were designed not only to provide a retirement income but also as a form of "golden handcuffs." At that time, employers also tended to be more paternalistic toward employees than they are today and were willing to assume a great deal of responsibility for the future and security of workers.

Private sector employers recognized long ago that times had changed, and the rationale behind the traditional defined benefit pension plan no longer was valid. State and local governments are only beginning to examine this issue. As Chairman of the Board of Trustees of Fairfax County's largest employee retirement plan, the Supplemental Retirement System, I was able to participate in a study comparing our defined benefit pension plan to several alternative defined contribution plans.

The comparison showed that a defined benefit plan has disadvantages to both the employer government and many of its employees.

In the typical local government pension plan, including the Virginia plan described in this report, an employee accumulates very low benefits for retirement contributions made during the first years on the job. But after some years in the system, an employee begins to accrue some retirement benefits and can see how the benefits will increase substantially if he or she remains with the employer until becoming eligible for full retirement.

The employee also realizes the tremendous loss that would be incurred by leaving the system. As Peter Ferrera explains in this report, the departing employee's eventual retirement benefit from the system will not be increased — not even for inflation that occurs between the time he leaves the system and retirement benefits begin. In addition, an employee who decides to leave and take the retirement benefits in a lump sum can take away only his or her own contributions to the system plus nominal interest earnings (4% in the Virginia plan). The employee must forfeit to the plan the employer's contributions and the investment earnings on both the employer's and the employee's contributions. After checking the retirement plans offered by other employers, the employee realizes that these losses likely could never be replaced at another job without a significant salary increase.

That is how the defined benefit plan becomes a golden handcuff. At some point, our estimate was after seven to 10 years on the job, the employee realizes that changing jobs would result in a significant reduction in retirement income. That is fine when the worker is valuable and productive. But the golden handcuff also limits the choices of workers who are no longer happy in their jobs, are unproductive, or who have reached their maximum potential in the organization. Managers in government complain that they

have workers who are just "hanging on" until they are eligible for the full retirement pension.

Changing to a defined contribution plan would remove the golden handcuffs. Employees could stay in the government workforce as long as they want and leave when they are ready without reducing their retirement benefits.

The defined benefit plan also works against the government seeking experienced, skilled workers. A defined benefit plan is great for an employee who joins the plan early in his or her career and stays in the plan until reaching full retirement age 30 or so years later. But a defined benefit plan is not a good deal for an employee in virtually any other career track.

Consider someone who wants to switch jobs in mid-career. The mid-career hire in the defined benefit plan earns full retirement benefits at a much later age than a same-age colleague who joined the plan early in his career. In fact, a mid-career hire might never qualify for full retirement benefits under the age and service formula used in defined benefit plans, depending on the employee's age when entering the plan.

The result is that state and local governments have trouble hiring mid-career employees. This is especially troublesome when the government needs to hire first-rate senior managers and technical workers. These types of employees usually can earn higher salaries in the private sector. The lower salaries of government service combined with the disadvantages of the defined benefit retirement plan discourage qualified workers from seeking mid-career transfers to government jobs.

A third problem is that a government defined benefit plan generally allows an employee who joined the plan early in his career to leave with full retirement benefits between ages 50 and 60. It is not unusual for a senior employee to be eligible for full-retirement at 50 or 55. Because at that point the senior employee likely has reached the top of the government's pay scale and retirement benefits are based on the salary earned in the last three years on the job, remaining on the job for a few more years will do little to increase retirement benefits. Thus, there is a strong incentive for an employee to leave government service soon after becoming eligible for maximum retirement benefits, even if that occurs between ages 50 and 55.

This is the age at which most private sector employees are rising to top positions, are in or near their peak productive years, and plan to work another 10 to 20 years. Their experience and institutional memory are most valuable to their employers. But a defined benefit plan encourages these valuable employees to resign, begin collecting full retirement benefits, and seek other jobs until the "normal" retirement age of 65.

When a discussion of defined benefit versus defined contribution plans takes place in a public forum, the focus usually is on arguments that the employer is trying to reduce

its costs by creating the defined contribution plan. The effect the plan structure has on the quality of the work force and employee incentives usually is ignored.

In this report, Peter Ferrera does an excellent job explaining the relative advantages of defined contribution plans to a state government and its employees in general, and also shows specifically how a defined contribution plan could benefit Virginia's government and its employees. While Mr. Ferrera makes his points using a particular defined contribution plan proposal, readers should keep these points in mind:

- Defined contribution plans can take many forms. The level of employer and employee contributions can be adjusted to meet the needs of the government and its participants. In addition, if workers desire some "guaranteed" retirement benefit, a combination defined contribution and defined benefit plan, known as a target benefit plan, can be created.

- Disability benefits often are part of a defined benefit plan. When switching to a defined contribution plan, there are several ways to deal with this issue so that employees do not receive lower overall benefits and the employer will not see its costs increase. Mr. Ferrera recommends using part of an employee's retirement account to buy group disability insurance. Another option is to carve the retirement and disability benefits into two separate programs that are independently funded and administered.

- Plans can be designed so that the changes are "cost-neutral" to the government.

- Under some plans and assumptions, workers who join a defined benefit early in their careers and stay with the plans until retirement often get the highest benefit possible. But virtually any other worker will earn a better retirement benefit if the government establishes a defined contribution plan instead of a defined benefit plan. Ferrara's tables project substantially better benefits for government employees under the defined contribution plan, even those who join early and stay in it for 30 or 40 years. But even if less favorable assumptions than Ferrara's are used, the benefits of changing to a defined contribution plan are not reduced, especially if the change allows workers the option of staying in the current defined benefit program.

- The biggest complaint government employees have against proposed defined contribution plans is that they believe they are not qualified to invest their retirement accounts. This issue needs to be addressed squarely to ensure that the workforce is satisfied with the new plan. Governments can make a defined contribution plan successful by emulating the employee education and counseling programs that exist with private sector defined contribution plans.

Many workers, partly based on media reporting, believe that talk of converting a defined benefit plan to a defined contribution plan is just a sophisticated way of cutting retirement benefits. The fact is that for many workers the defined contribution plan will increase the benefits they will earn from government employment. Governments can ensure this, without increasing their own costs, by carefully designing a defined contribution plan then educating their employees about the new plan and its benefits. Governments also should give all existing employees the right to continue under the existing defined benefit plan if they desire.

It is time for state and local governments to review their retirement systems and the effects they have on their workforce and recruiting. Many will find that shifting to some form of defined contribution plan will improve the quality of the workforce and make recruiting easier without increasing costs or reducing overall benefits.

Robert C. Carlson

(Mr. Carlson is managing member of Carlson Wealth Advisors, L.L.C. and editor of the monthly newsletter, *Retirement Watch*. He also serves as Chairman of the Board of Trustees of the Fairfax County, Virginia Supplemental Retirement System. The views expressed are solely those of Mr. Carlson and do not reflect the opinion of any organization or government agency with which he is affiliated.)

Pension Reform for Virginia

By
Peter J. Ferrara

Executive Summary

Pension liberation is the term for a movement taking hold across the country regarding reform of pension programs for state and local government workers. The movement seeks reforms providing for worker control and choice over his or her own finances, and providing for taxpayer protection.

Traditionally, state and local government pensions have followed the "defined benefit" model, where the employer promises a specified retirement benefit in the future, and saves and invests annual contributions in a common pool to finance those benefits. The new reforms involve offering workers the choice of a "defined contribution" plan, where the employer pays a specified amount into an individual account for each worker. These funds are then invested over the years by the individual, and finance his or her benefits in retirement.

Ten states have now begun adoption of defined contribution reforms for some or all of their workers, with Michigan taking the lead with the most comprehensive plan. Legislation for such reform is pending in another 6 states, and twelve more have undertaken formal studies. This movement follows a trend in private sector pensions, where more employees now have defined contribution plans than defined benefit plans.

The defined contribution option offers the following benefits to workers:

- Portability. Defined contribution plans are inherently fully portable, as workers can take the funds in their individual accounts with them wherever they go. Traditional defined benefit plans have little or no portability.

- Vesting. A pure defined contribution plan also eliminates any vesting requirement, as the funds immediately become the property of the workers as soon as they are paid into the worker's individual account.

- Fair Benefits. Under traditional defined benefit plans, benefits are skewed to favor the longer term and oldest workers and disadvantage the younger and shorter term workers. None of these distortions occur in the defined contribution plan.

- Personal Control. In the defined contribution plan, the retirement funds for each worker are under the direct ownership and personal control of the worker in his or her own individual account.

• Better Benefits. Both shorter term and longer term workers could expect better benefits from the defined contribution plan.

The defined contribution plan offers the following benefits for taxpayers.

• No Investment Risk. With the government employer only making a specific contribution to the accounts of workers each month, the government, and by implication the taxpayers, is then not liable for investment performance of the fund.

• No Political Risk. Similarly, with a defined contribution plan taxpayers do not bear any of the political risks of the government managing a large pool of investment funds, as in a defined benefit plan.

•No Unfunded Liability. With the government again just paying a specified amount into workers account each month, there is no possibility of an unfunded liability that taxpayers would have to cover.

• Greater Control Over Costs. With the defined contribution plan, the government is responsible only for a specified, pre-agreed, monthly contribution to each worker's investment account, providing greater certainty and predictability in budgeting.

• Reduced Costs. Under a defined contribution plan, the government bears negligible administrative costs, avoiding the substantial costs of maintaining a large common investment pool and paying benefits. Funding costs may also be reduced by a defined contribution plan.

• Improved Employee Recruitment. Because of the advantages of the defined contribution plan for workers, such a plan would help state and local governments attract qualified workers

This study advances a specific defined contribution reform plan for Virginia. Workers and employers would pay the same amounts into the defined contribution plan as they do for the current system. The funds would go into an individual investment account for each worker, and would be managed by one or more government approved private investment management companies. These funds would then finance an annuity or other benefits in retirement. Workers would be free to choose this new defined contribution plan or stay in the old defined benefit plan. For the reasons discussed above, Virginia should adopt this defined contribution reform proposal.

Pension Reform for Virginia

By Peter J. Ferrara

General Overview

A quiet revolution for workers' control and choice over their own retirement finances, and with the added benefit of taxpayer relief, is beginning to take hold across the country. The issue involves reform of pension programs for state and local government workers. Because of the liberating effects of the budding reforms *for both workers and taxpayers*, the movement has been dubbed, "pension liberation."

Traditionally, state and local government pensions have involved "defined benefit" plans. Under these plans, the employer promises a specified retirement benefit and saves and invests annual contributions in a common pool to finance those benefits. The new reforms involve offering workers the choice of an alternative "defined contribution" plan. Under such plans, the employer pays a specified amount into an individual retirement account for each worker, which becomes the worker's private property. Private investment managers the worker chooses then invest these funds over the years. In retirement, the account funds are then used to finance the benefits the worker chooses and that the accumulated account contributions and investment returns can support.

Michigan has been the leader in the new trend towards defined contribution plans among the states, adopting a comprehensive plan proposed by Governor John Engler in 1996. California began adopting such a plan for some of its workers that year as well, and that reform process continues. Ten states have now adopted defined contribution reforms for a portion of their workers. Legislation for such reform is now pending in 6 states, and formal legislative studies for such reforms are under way in 12 other states, including Virginia.

This new trend among the states follows a dramatic shift in the private sector towards defined contribution plans over the past 20 years. The number of private sector employees in such plans soared from 11 million in 1975 to 43 million in 1995, an increase of about 300%. By contrast, defined benefit plans in the private sector have stagnated, growing over the same period by less than 10%, from 33 million covered workers to 36 million. *More private sector employees now have defined contribution plans than defined benefit plans.*

For workers, the defined contribution plan is fully portable. Workers are able to take the funds paid into their accounts wherever they go. Those who work for a few years in the public sector and then move on, as many now do, would not lose their entire employer pension contributions, as with typical defined benefit plans. Moreover, the funds are under the control of each worker. They don't have to worry about politicians mishandling the funds, accumulating unfunded liabilities, or cutting their benefits. Indeed,

in the private market the longer-term workers will earn substantially higher benefits than promised in defined benefit plans. Overall, such reform provides workers with broad freedom of choice and control.

For taxpayers, the defined contribution plan avoids the risks of having the government responsible for investing huge pools of retirement funds. Instead, the government's expenses are fixed as a percentage of payrolls each year, with no investment risk or danger of unfunded liabilities. This promotes certainty and stability in budgeting. In addition, the simple defined contribution plan saves large amounts in administrative costs, and possibly funding costs as well. At the same time, because of the above benefits of defined contribution plans for workers, such plans will help state and local governments recruit the best workers.

Basically, the defined contribution plan privatizes the investment function of the public employee pension system.

This report will review these issues in more detail, and advance a pension liberation proposal suited to Virginia. It will first describe the Virginia public employee retirement system. It will then discuss the reforms being proposed and adopted in other states. The report will next outline a specific proposal for Virginia. The advantages of such reform for both workers and taxpayers will then be fully analyzed. The report will conclude by responding to potential criticisms.

The Virginia Public Employee Retirement System

The Virginia Retirement System (VRS) provides retirement, survivors and disability benefits for state workers from 234 state agencies, for the employees of 136 cities and towns in the state, for the teachers and other employees of 146 local school boards, for workers employed by 92 county governments, and for the employees of 138 other political subdivisions in the state.[1] Altogether, the plan covers about 84,000 state workers, 112,000 teachers, and 75,000 workers from the other political subdivisions.[2] It provides benefits to about 84,000 retirees and other beneficiaries.[3] These benefits are in addition to those provided by Social Security.

Separate defined benefit plans cover about 1,600 state police officers and about 400 state judges. The discussion below will focus on the predominant VRS plan.

The normal retirement age for workers in the VRS is 65. Workers with 30 years of service can retire with full benefits at age 55. For those with less than 35 years of service, full retirement benefits are equal to the average of the 3 years of highest pre-

[1] Virginia Retirement System, Comprehensive Annual Report for the Fiscal Year Ended June 30, 1997, p.27
[2] Ibid., p.10
[3] Ibid., p.4

retirement compensation times years of service times 1.5% of the first $13,200 of average compensation and 1.65% of average compensation above $13,200. So, for example, take a worker with 25 years of public service and average compensation for the highest 3 years of $30,000. The worker's annual retirement benefit would be 1.5% of $13,200 plus 1.65% of $16,800 times 25, or $11,880. For a typical state government retiree who retires after 21 years of government service, the average benefit is currently about $900 per month, or $10,800 per year.[4]

For those with more than 35 years of service, full retirement benefits are equal to the average of the 3 highest years of pre-retirement compensation times years of service times 1.65%. So, for example, take a worker with 35 years of public service and average compensation for the 3 highest years of $30,000. The worker's annual retirement benefit would be 1.65% times $30,000 times 35, or $17,325.

Workers are eligible for early retirement at age 55 with at least 5 years of service, or at age 50 with at least 10 years of service if they worked for a public employer at any time after Jan. 1, 1994. But the full benefits calculated as above are reduced by 0.5% for each of the first 60 months of early retirement and 0.4% for each additional month after age 55. Benefits are reduced by 0.6% for each additional month of early retirement before 55. So, for example, a worker with 20 years of service and $30,000 of average compensation retiring at 55 would have the full annual benefit calculated under the formula above ($9,504) reduced by 54% (0.5% x 60 + 0.4% x 60), to $4,372.

If the worker is closer to achieving the service requirement of 30 years for full benefits at 55 than to the normal retirement age of 65, then the benefit reduction can be calculated based on the number of years short of the service requirement. For example, take a worker at 55 with 25 years of service and $30,000 average compensation. Instead of 10 years of calculated benefit reductions based on the normal retirement age of 65, the worker's benefits would be reduced for just the 5 years short of the service requirement of 30 years for full benefits at 55. So the worker's benefit would be the full retirement benefit ($11,880) reduced by 30% (o.5% times 60), or $8,316.

Workers may choose post-retirement survivors benefits under a range of different options, including continuation of 100% of the retirement benefit to the survivor, 50% of the retirement benefit, or some other chosen percentage. However, if these survivors' benefits are chosen, the retirement benefit is actuarially reduced depending on the percentage of continuing benefits chosen and the age of the designated survivor beneficiary. Workers are also eligible for survivor's benefits for death before retirement, in varying amounts depending on salary and length of service. Workers are eligible as well for disability benefits, which vary depending on salary, length of service, and other factors.

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[4] Ibid., p. 86

Once these retirement, survivors, or disability benefits begin, the VRS pays an annual cost-of-living increase equal to the first 3 percentage points of inflation measured by the Federal CPI-Urban index, plus half of each additional point up to 7% inflation. So the maximum COLA increase in any year is 5% (3% plus one-half of 4%).

Except for the disability benefits, the right to these benefits vests only after 5 years of employment. (Vesting is when workers become entitled to receive some benefits at some point, now or in the future.) Workers who leave or die in service before then receive back only the employee share of VRS contributions plus 4% annual interest. *Even after 5 years, workers who leave cannot take the employer contributions or any investment returns from these funds with them.* They can only take out the employee contributions plus 4% interest, and forego all future benefits under the system. Or they can wait until retirement and receive whatever retirement benefits they may be entitled to given their years of service.

The VRS is financed by contributions from both workers and employers. The employee contribution is 5% of wages, which the employer can agree to pay. In fact, Virginia state and local government employers agree to pay about 86% of these employee contributions overall.[5] Employers are required to pay varying amounts that designated actuaries determine as necessary to finance the promised benefits. In FY97, the state paid 4.18% of payroll for its VRS contribution as an employer, and school districts paid 6.41% of payroll on average. The contribution rates for other political subdivisions ranged from 29.92% of payroll down to 0%. These employer contributions cost state taxpayers over $855 million in FY 97 alone.

At the end of the last fiscal year, the VRS trust funds held about $25.5 billion in accumulated assets.[6] However, the system was still not fully funded, as these assets amounted only to about 80% of accrued benefit liabilities.[7]

Pension Liberation Across America

As previously mentioned, Michigan has adopted the most comprehensive defined contribution reform. Under that 1996 reform, current state employees can choose the new defined contribution plan or stay in the old defined benefit plan. *All newly hired employees will be in the defined contribution plan.* The reform originally committed to including all public school employees in the reform. But since the old defined benefit plan was not fully funded, this has been delayed to avoid transition-funding problems.

Under the defined contribution plan, Michigan contributes a minimum of 4% of the worker's salary to an individual investment account for each worker. Michigan will then match voluntary employee contributions up to an additional 3% of salary, making a total

[5] Ibid., p. 30
[6] Ibid., p. 20
[7] Ibid., p. 40

contribution of 10%. The worker can contribute up to an additional 13% of salary without employer match at the worker's choice.

The plan includes a vesting feature added to the traditional defined contribution model. The employer contributions are vested 50% after 2 years, 75% after 3 years, and 100% after four years. Before such vesting, the employer contribution to a worker's individual account must be returned if the worker leaves to work for another employer.

Current Michigan employees could choose to switch to the new defined contribution plan only during an "open season" in the first four months of 1998. For those who made the switch, all past employee contributions to the defined benefit plan were transferred to the defined contribution plan. In addition, for workers who were vested in the defined benefit plan, an amount equal to the present value of their accumulated retirement benefits was transferred to their defined contribution account as well. Once a worker switched to the defined contribution plan, he cannot later choose to go back to the defined benefit plan. On the other hand, after the four-month window in early 1998, workers in the defined benefit plan can no longer choose to switch to the defined contribution plan. For current workers who did switch, their prior service in the old defined benefit plan is counted toward the 4 year vesting requirement of the defined contribution plan.

Investment options are structured for these Michigan workers to make investing easy and reasonably secure. First, they can choose from three core investment funds with set percentages of asset allocations in different investment areas, reflecting a range of risk and return variations. State Street Global Advisors, the third party administrator for the plan and one of the largest pension investment firms in the world, maintains these three funds, choosing the particular investments and holding to the preset asset allocation requirements.

Secondly, the worker can choose from among 12 pre-selected mutual funds considered the best in their primary investment areas, whether stocks, or bonds, or other private investments.

Finally, the worker can choose a self-directed option, which includes the choice of hundreds of mutual funds, determined to be sound and suitable for retirement investment.

Workers who leave state employment under the defined contribution plan can leave their assets in the same structured investment system, or roll them over into an Individual Retirement Account or a retirement plan maintained by their next employer.

Current workers who switched to the defined contribution plan will receive the same retiree health benefits as under the old defined benefit plan. For new workers in the defined contribution plan, the state will pay 3% of the cost of the health benefits for each year of service, up to a maximum of 90%. The retiree pays the rest. These benefits vest

after 10 years of service. Retirees can choose any alternative private health plan and direct the state premium contribution towards payment of that plan. This includes private Medical Savings Account plans.

The state's reform plan provides for no change in the benefits of current retirees. Moreover, there will be no change in benefits as well for employees who choose to stay in the old defined benefit plan.

The state Department of Management and Budget estimates that Michigan will save almost $100 million in the first year alone because of the new defined contribution plan, due to savings on employer contributions and administrative costs. Yet, 45% of state employees who effectively received no benefits under the old plan because they left state employment too early will now be able to benefit under the new system after state employment of only 2 years, with fully vested benefits after only 4 years.

In addition to the state, four major counties in Michigan have switched to defined contribution plans for their workers. These include Oakland County, Saginaw County, Washtenaw County, and Wayne County. The state capitol, Lansing, has switched as well, and the city of Kalamazoo has a partial defined contribution plan.

The reform process in California began with legislation proposed in 1996 by Assemblyman Howard Kaloogian (R-San Diego). His bill would have authorized, but not required, state and local employers throughout the state to offer defined contribution plans as an alternative to their defined benefit plans. The defined benefit option would have to be maintained as well.

For workers who chose the new retirement plan, the bill required employers to transfer accrued benefits from the defined benefit plan to the worker's defined contribution account. Remaining details of the defined contribution plan, such as employer and employee contributions, would be left to negotiations between employers and workers. The bill would allow immediate vesting of all employer contributions to the defined contribution accounts. It would also allow a structured investment system as under the Michigan reforms discussed above.

The bill would expand benefits to 70% of state workers, who receive no benefits under the state's current defined benefit plan because these employees never satisfy the vesting requirements. At the same time, because of savings on administration and funding costs, the state Department of Finance estimated that the bill would save a whopping $1,642 each year for each new employee who chose the new system. The bill would affect 1.2 million workers in the California Public Employees Retirement System (CalPERS) and State Teachers Retirement System (STRS) plans, which hold $165 billion in vested assets.

A limited version of Kaloogians's plan passed in 1996, providing for new defined

contribution options for employees of the state's colleges and universities. Kaloogian is continuing legislative efforts to expand this option to all government workers in California including all employees of the state legislature.

Other states with defined contribution systems for some of their employees include Ohio (university employees), Illinois (university employees), Washington (public school employees), Alabama (university employees), West Virginia (public school employees), South Dakota (university and some other employees), Colorado (public school employees) and Missouri (university employees). Legislation to provide for such plans for more government workers is pending in California, Colorado, South Dakota, Florida, Oklahoma, and Arizona. Twelve states also have studies under way to consider such reform--Connecticut, Iowa, Massachusetts, Missouri, Montana, New Mexico, North Dakota, Ohio, Oklahoma, Vermont, Virginia, and West Virginia.

A Defined Contribution Plan for Virginia

Virginia should offer its workers an alternative defined contribution retirement plan. This plan can be structured as follows.

Workers and employers would each pay the same amount into this defined contribution retirement plan that they pay for the current retirement system. Employers would be required to assume the employee contribution share for the defined contribution plan to the same extent that they do for the current defined benefit plan. As the actuarially determined employer contribution for the defined benefit plan changes up or down in future years, the employer would be required to pay the same rate for the defined contribution plan. Workers would be allowed to voluntarily contribute additional amounts, up to a total of 20% of their wages counting the employer contributions, or any higher limit allowed by federal tax law.

All contributions to the defined contribution plan would go into an individual investment account for each worker. These contributions would immediately become the private property of each worker *with no vesting period.* The worker would then choose an investment company to manage his or her account and pick the particular investments for the account. The workers could choose from a wide range of different companies approved by the state. Companies that wanted to manage such funds would apply to the state for approval. The state would approve only reliable firms with established expertise, which would commit to comply with the state's rules and regulations. Such companies would include major stock brokerage firms, banks, insurance companies, mutual funds and others. Workers could switch among these investment companies during an open season each year.

The investment companies would then determine what particular stocks, bonds and other investments to buy with the funds in each worker's account. High risk and speculative investments would be prohibited. But the funds could be invested in domestic

and foreign stocks and bonds, government securities, perhaps certain real estate vehicles, and other instruments. The Federal regulations currently applying to investments in Individual Retirement Accounts and 401(k) plans would be a good model to follow.

Investment returns to the accounts would be tax-free over the years. Some of the contributed funds would be set aside to buy private life and disability insurance matching the survivors and disability benefits of the current VRS defined benefit system. The investment company chosen by the worker would be responsible for obtaining such insurance and competitive group rates would be expected. No withdrawals from the defined contribution investment account would be allowed before retirement.

The worker could retire at any age at which retirement is permissible under the current defined benefit system, which would be age 50 after 10 years of service, 55 after 5 years of service, or 65. Retirement benefits would equal what the funds accumulated in each worker's retirement account could support. Workers could choose to buy a private annuity with some or all of the funds, which would guarantee specified benefits for the rest of the worker's life. Or the worker could rely on periodic withdrawals from the accounts, which would be limited to ensure that workers would not run out of funds before a reasonable life expectancy.

Workers today who have already paid into the current defined benefit plan for any number of years would be free to switch to this new defined contribution plan. They would each receive a lump sum payment from the current defined benefit plan into their new defined contribution retirement accounts. This payment would be equal to their share of the assets in the current defined benefit plan set aside to finance their accrued retirement benefits. This should compensate them sufficiently for *both* the employer and employee contributions paid into the system over the years.

The new defined contribution plan would only be an option for all current and future government workers in the state covered by any of the current defined benefit plans. Each would be free to choose it or to choose to stay in the current defined benefit plan. Workers who remain in the defined benefit plan would continue to be free to choose the new defined contribution alternative during an open season each year.

Advantages of Defined Contribution Reforms

This proposed reform with a defined contribution plan would produce enormous advantages for the state workers and taxpayers of Virginia.

Advantages for Workers

Portability. The clearest advantage for workers of the defined contribution plan is portability. The funds would be paid directly into each individual worker's own account and immediately become the worker's direct property. When a worker leaves state

employment for another job, he or she can then take this individual retirement account with them. This account would include all past employer and employee contribution plus full market investment returns. As a result, *the defined contribution plan provides for full portability.*

The current defined benefit VRS plan, by contrast, has no real portability. When a worker leaves, he or she can take with them only the employee share of past contributions plus 4% compounded interest. They must give up the employer contributions for all of their years of work, all investment returns on those contributions, and the full market investment returns on the employee contributions in excess of 4% annual interest.

This lack of portability is highly damaging to shorter term and younger workers. Shorter term here means those working less than about 15-20 years in state employment. For reasons discussed fully below, the VRS, like defined benefit plans generally, does not provide good benefits for younger workers who stay less than about 15-20 years in service. The system is skewed to favor the longest-term workers. As a result, the shorter-term workers can only take the employee share of retirement contributions plus nominal interest when they leave. And they are not offered good benefits if they just wait to receive what the system will later pay them. Frankly, these workers can do much better by just taking their own money out and investing it, rather than waiting for these future benefits from the system.

As a result of the lack of portability and the plan's benefit structure, most state workers end up not getting any significant benefits from a typical defined benefit retirement system. They just end up leaving with their own money back. In California, which has defined benefit plans for their government workers similar to the VRS, 70% of state and local workers end up not getting any retirement benefits from the system. In Michigan, 45% of state workers and 65% of public school employees effectively received no benefits under the old defined benefit plan. *Notably, the actuaries for the Virginia plan assume that 75% of workers who leave before age 50 will elect to simply take the employee contributions plus interest from the system, effectively receiving no benefits from the employer share of contributions.*[8]

The defined contribution plan solves these problems with full and immediate portability. Under the plan proposed above, 100% of workers would get retirement benefits for the years they worked for state or local government. And they would take those benefits with them wherever they go. This would be highly beneficial for younger and shorter-term workers who stay in public employment less than 15 or 20 years. This probably constitutes the majority of people who work for state or local government.

Vesting. The defined contribution plan also eliminates any vesting requirement. The funds paid into the worker's account immediately become the property of the worker

[8] Virginia Retirement System, Comprehensive Annual Report for the Fiscal Year Ended June 30, 1997, p.71.

and remain fully available to pay future retirement benefits. This includes the employer as well as employee contributions and all investment returns on those contributions. Under the current defined benefit system, by contrast, the 5 year vesting requirement eliminates any real benefit for workers who stay less than 5 years.

Consequently, the defined contribution plan is highly beneficial for these shortest-term workers. A vesting requirement can be imposed on a defined contribution plan, as in Michigan, allowing workers to take permanent control of the funds in their own accounts only after the vesting period. But there is really no good reason for such a requirement in the defined contribution context. A vesting requirement in a defined benefit plan makes sense to eliminate small and relatively inconsequential benefit payments to numerous short-term employees, and the burden of keeping track of the financing and payment of such benefits. But in a defined contribution plan, the government simply pays a proportion of the worker's salary into the worker's retirement account. The worker owns and controls these funds. Eliminating any vesting requirement would allow all workers to receive retirement contributions for the years they worked for the state or local government, without any significant administrative burden on the system.

Fair Benefits. Under traditional defined benefit plans, benefits are skewed to favor the longer term and oldest workers and disadvantage the younger and shorter-term workers. This occurs in the VRS as well, in several standard ways.

First, of course, the vesting requirements eliminate benefits for those working less than 5 years, with the funds devoted to benefits for those working longer term.

Secondly, the benefits are a percentage of final salary, which tends to be much higher for those who have worked the longest, and for older workers. Take the example of a worker who enters governmental employment at 22, continues that employment for 15 years, and then leaves for a private sector job. The final three years of salary used to calculate the worker's benefits at retirement will be the years when the worker was 35-37. No salary increases for the next 25-30 years of the worker's career will be counted since this person will have left government employment. By contrast, suppose another worker starts employment at 22, continues working for the same government employer for 40 years, and retires at 62. As compared to the first worker, this employee's benefits will naturally equal an additional 1.5% - 1.65% of salary for each additional year worked past age 37, which fairly gives the worker credit for the additional years worked. But this additional 1.5% - 1.65% per year will be taken against the final salary at age 62, which will include 25 years of additional salary increases. This gives the second worker more benefits for each year of work than the first worker.

Indeed, compare the first worker to an older worker who also works 15 years for the government. Assume this older worker starts government employment at age 47, continues that employment for 15 years, and retires at age 62. That worker will receive benefits equal to 1.5% - 1.65% for each of the 15 years of service, or 23% - 24%, times

the average salary at ages 60-62. The average salary at these ages will incorporate an additional 25 years of salary increases prior to government employment as compared to the salary at ages 35-37 which is used to calculate the benefits of the first worker, who will receive 23% - 24% times this lower average salary. *So the older worker will receive much higher benefits even though he or she worked the same number of years as the younger worker.*

Thirdly, granting the same percentages of final salary for each year worked does not give the full value to younger workers of the contributions made for them. Consider again our worker who enters government employment at 22, works for 15 years, and then leaves for private sector work. The contributions paid into the system for him during his years of employment, including the employer and employee contributions, continue to earn investment returns for many years after he leaves government employment. Yet, this worker will only get the same 1.5% - 1.65% of final salary for each of his 15 years of government employment as other workers. Consequently, the worker will get nothing for all the years of investment returns after he leaves employment on the contributions made for him. These returns will be redistributed to finance the higher benefits of older and longer-term workers. Indeed, the contributions for the older worker who entered government employment at age 47 and retired at 62 only earn returns for 15 years before the worker's retirement, while the contributions for the younger worker earned returns over a 40 year period before retirement at age 62. Yet, the older worker receives more in benefits rather then less, with funds effectively redistributed to that worker from the younger worker.

Inflation makes the problem even worse. Salary increases over the years usually incorporate compensation for inflation. When benefits are calculated based on salary, they will incorporate the compensation for inflation included in the salary increases over the worker's career. But for younger, shorter-term workers, this inflation compensation stops when they leave government employment, as the salary used for their benefit calculations is fixed at that age. So, for our 15-year worker who leaves for the private sector at age 37, the value of his salary for retirement benefit calculations will be depreciated by inflation over the next 25 years, until retirement at age 62. The value of the worker's benefits will consequently be depreciated by such inflation as well. By contrast, the longer term and older workers will be fully compensated for inflation through their salary increases over working years.

None of these distortions occur in the defined contribution plan. The contributions to the worker's account immediately vest as the property of the worker, so the worker gets to keep those contributions. Each worker also gets the full market investment returns on the contributions for every year thereafter, giving him the full value of those contributions, rather than redistributing some to others based on a calculated percentage of final salary. Finally, those investment returns over the years will also compensate for inflation (as the average stock market return has since World War II), again giving the worker additional compensation than under the current VRS plan.

Consequently, the defined contribution plan gives fair, undistorted benefits to each and every worker. Those who work longer get proportionally higher benefits to the extent they worked longer. But they do not get disproportionally higher benefits, skewed to favor them over other workers, and effectively redistributing funds from these workers to them.

Personal Control. In the defined contribution plan, the retirement funds for each worker are under the direct ownership of the worker in his or her own individual account. Workers can then pick the private investment manager that will best serve them in the private competitive market. They consequently no longer have to worry about adverse changes in their retirement plan or politicians failing to make good on their promises, at least for the years already worked, as the contributions for those years already belong to them in full.

Better Benefits. Younger and shorter term workers who work roughly 20 years or less in government employment would generally get much better benefits from the defined contribution plan, because of all the factors discussed above. *However, even the longest-term workers could get better benefits from the defined contribution plan as well.*

This is shown in the accompanying Table at the end of this study. The Table assumes that 10% of salary is paid into the defined contribution plan each year. Of this total, 15%, or 1.5% of payroll, is assumed to be devoted to financing pre-retirement survivors and disability benefits equivalent to those paid by the VRS. Current expenditures for these benefits seem to be running slightly less than this as a percent of payroll.

The remainder of contributions are assumed to be invested and to earn a 5.5% real rate of return over the long run. In fact, over the 70-year period from 1926 to 1996, going back before the Great Depression, the composite real rate of return on all stocks in the Standard and Poors 500 was 7.5%.[9] The composite real rate of return on smaller company stocks on the New York Stock Exchange over this period was even higher, at 9.5%.[10] A diversified portfolio of 75% large stocks and 25% small stocks would have earned a real return of 8%. Over the long term, the real return paid by investment quality corporate bonds has been 3-4%.[11] So a 5.5% real return is a quite fair assumption allowing for some diversification of stocks and bonds, reasonable administrative costs (which should be less than 50 basis points), and quite ordinary investment performance.

All workers were assumed to enter state government employment this year at age 25. They then leave for private sector employment after the varying periods described below, and continue to work until the normal Social Security retirement age. Different examples could be used with differing ages for entry and exit of employment. More

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[9] Stocks, Bonds, Bills and Inflation, 1997 Yearbook, (Chicago, Ill., Ibbotson Associates, Inc., 1997)
[10] Ibid.
[11] Calculated from Moody's Investor Services, Industrial Manual, Bond Survey

sophisticated variations in employment history could be used as well. But none of this would change the basic conclusion.

Take the example of a worker who starts government employment at 25 and works for 10 years before leaving for the private sector. Payments into the system stop after those 10 years, but the accumulated funds continue to earn investment returns after that. A worker who earns $30,000 per year over his career after inflation would reach retirement in the future with a fund of almost $200,000 ($192,143) in today's 1998 dollars. That fund would finance an annuity with benefits about 5.5 times what the VRS would pay, and almost completely replacing pre-retirement income.

Or take a worker who enters government employment at 25, works for 20 years, and then leaves for the private sector. Again, payments into the system stop after 20 years, but the funds continue to be invested and earn returns. A $30,000 per year worker would reach retirement in the future with a fund of about $300,000 ($304,634) in today's 1998 dollars. That would finance an annuity with benefits about 4.5 times what VRS would pay, and about 40% more than pre-retirement income. Again, results are similar for workers making $40,000 and $50,000 per year.

A $30,000 per year worker who continues to work for the state government for 30 years would reach retirement with a fund of $370,483 in today's dollars. This would finance an annuity with benefits about 3.5 times as high as VRS would pay, and about 70% more than pre-retirement income. The 40 year worker at $30,000 per year would reach retirement with a fund of over $400,000 ($409,036) in today's dollars. This fund would still finance an annuity almost 3 times as large as VRS, and replacing almost twice pre-retirement income. The results for the higher income workers in each of these cases are again similar.

State employees who work 30-35 years or so in the public sector can take advantage of early retirement at full benefits under the VRS. In those cases, the workers would get the above VRS benefits for more years than were assumed for the defined contribution benefits. But even in these cases, the accumulated funds in the defined contribution plan would be sufficient to pay higher benefits than the VRS.

The reasons for the advantage of the defined contribution plan for the shorter-term workers were discussed above. But how can the advantage for the longer-term workers as well be explained? Workers just do not seem to be getting the most for their money in defined benefit plans. While the VRS is currently earning fabulous returns, as are most investors right now, that likely won't continue over the long run. Moreover, those high current returns are not reflected in the benefits promised to workers in any event. The current high returns in the VRS are being used to increase the funding ratio of the plan and reduce employer contributions. With a defined contribution plan, workers would be enjoying the full, current high returns themselves through their individual account investments. The analysis above shows that during normal times at standard long term

returns, which are much less than what the market is providing now, longer term workers would still get better benefits investing the funds on their own rather than through the VRS defined benefit plan.

Advantage for Taxpayers

No Investment Risk. The most obvious advantage for taxpayers of the defined contribution plan is that it eliminates investment risk for them. With the government managing a common pool of investment funds under a defined benefit plan like the VRS, the taxpayers bear the complete risk of poor investment performance. If such poor performance leaves the pool unable to pay the promised defined benefits, then the taxpayers will have to make up the difference.

Under the defined contribution plan, however, the government simply makes a specific contribution to the accounts of the workers each month. The government, and by implication the taxpayers, are not liable for the investment performance.

No Political Risk. Defined contribution plans greatly reduce another set of risks that are usually overlooked -- political risks. With the government specifying benefits far in the future, as under a defined benefit plan like the VRS, there is always a strong danger of political giveaways by short-sighted politicians. These politicians can promise higher retirement benefits, while leaving future officials and taxpayers to pay for them. Under a defined contribution plan, where the government does not specify future benefits but only makes regular investment contributions, this risk is eliminated.

Moreover, a large government investment pool, as under a defined benefit plan, is always subject to the danger of political interference that could raise costs. Political favoritism may influence investment policy, prohibiting some investments and forcing the fund into others. By taking the focus off of simply maximizing investment returns, such political favoritism will reduce investment returns and increase the cost of funding the specified defined benefits.

Politicians may seek to raid the large, tempting investment pool in other ways as well. They may seek to draw supposedly excess funds out of the pool in one way or another, perhaps by replacing an over-funded plan with a new one, or reducing the government's contributions. Or they may try to use the funds for short-term added benefits. Politicians and bureaucrats have been known even to siphon funds out of these plans improperly or illegally. These actions would again raise costs for taxpayers.

Government management of the funds also creates the risk of less than competent handling of the funds by bureaucrats who lack the incentives, competitive pressures, and expertise of private investment managers. Attempts to insulate the funds from political and bureaucratic control by contracting out to private investment managers may not be

entirely successful. The investment managers can still be subject to political pressure, political mandates in their contracts, or even counterproductive legislative mandates.

Finally, a large government investment pool creates the risk for taxpayers of greater government control of the private economy. Through such a pool, the government may end up owning large shares of private companies. The government would also hold a large share of investment capital that it could use to impose mandates on the private sector.

Even where there has been a good record of avoiding these abuses in the past, the danger is always present. However, none of these risks arising from a large government investment pool exist in a defined contribution plan, where the government does not maintain such a pool.

No Unfunded Liability. The defined contribution plan eliminates the danger of any unfunded liability, from any source, that must be covered by taxpayers. Under a defined benefit plan, like the VRS, any shortfall in the common investment pool that leaves the pool unable to pay the promised benefits, creating an unfunded liability, must be covered by the taxpayers, regardless of the cause of the shortfall. In the defined contribution plan, where the government does not maintain a common investment pool but only pays a specified amount to each worker's individual account each month, there is no possibility of an unfunded liability that taxpayers would have to cover.

Greater Control Over Costs. The defined contribution plan provides the government and taxpayers greater control over costs. Costs under a defined benefit plan, where the government has pledged to provide a certain benefit amount regardless of cost, can vary greatly, depending on a wide range of factors outside the government's control. Retirees can live longer, greatly increasing costs. More workers may stay with the government employer long term, increasing costs. Interest rates or the stock market may decline, requiring increased contributions to make up the difference.

With the defined contribution plan, by contrast, the government is responsible only for a specified contribution each year. This contribution is completely dependent only on what the government agrees with workers to pay. This means greater certainty and predictability in budgeting. There is no possibility that taxpayers will be surprised with a large, unexpected unfunded liability requiring increased taxes.

Reduced Costs. A defined contribution plan will also significantly reduce costs. Defined benefit plans have substantial administrative costs for the government employer. The government must maintain and pay for the management of the large common pool of assets. It must also administer the benefits, determining eligibility and making payments.

With a defined contribution plan, by contrast, administrative costs for the government employer are negligible. The government simply pays an amount into each

employee's own account as part of payroll processing. The worker and his investment company take over administration of the account after that.

Improved Employee Recruitment. Finally, because of the advantages to employees noted above, defined contribution plans can help state and local governments attract employees. Highly talented workers may not be willing to commit to state government employment for the long term. But they may be willing to work for a state or local government for a few years. The defined contribution plan would make it easier to recruit such workers because it is fully portable, and the workers can take the saved contributions with them when they leave one job for another. Moreover, workers would favor the freedom of choice, personal control, and possibly higher benefits that they could get through defined contribution plans.

Criticisms of Defined Contribution Plans

Unsophisticated Workers

One of the major criticisms of defined contribution plans is that most workers are too unsophisticated about investing to handle the responsibility of directing their own retirement investments. This underestimates the capabilities of working people. Nevertheless, the plan proposed above was carefully structured to avoid this problem. Under this proposed plan, workers would simply pick from a range of sophisticated, highly reliable, investment management companies. These would include large banks, insurance companies, stock brokerage firms, and others. These highly sophisticated investment managers would then be picking the individual stocks, bonds and other investments, not the workers.

Moreover, the defined contribution plan can include a strong employee financial education program. Different investment managers can make periodic presentations regarding their investment strategies. Financial experts can make regular presentations regarding the risks and rewards of relative investments, and basic principles such as diversification. This education will help employees better understand the defined contribution plan, and better handle their own personal savings.

Investment Risk

Probably the main criticism of defined contribution plans is that they shift investment risk from the employer to the worker. In a defined benefit plan, the worker receives the specified benefits regardless of investment performance, so the worker bears no investment risk. In a defined contribution plan, the worker's benefits depend entirely on the investment performance of his or her retirement account, so the worker bears full investment risk. Poor investment performance leads directly to lower benefits.

What is not widely recognized is that while defined contribution plans leave workers subject to investment risk, defined benefit plans without full inflation adjustments leave workers subject to inflation risk. As inflation rises, the specified benefit in an unadjusted or not-fully-adjusted defined benefit plan is worth less and less. Under a defined contribution plan, by contrast, the worker's investments (paid by the government in Virginia) would rise along with inflation over the long run, providing a real, above inflation, market rate of return. This would tend to keep prospective long run benefits rising with inflation. *The VRS has only a partial inflation adjustment, so it is partially subject to this inflation-adjusted problem.*

Also not sufficiently appreciated is that, for several reasons, workers can fully handle the investment risk posed by defined contribution plans. First, retirement investments are very long term. The worker is investing not only for his entire career, but also for his entire life, as the remaining retirement fund will continue to be invested to support benefits throughout retirement. With such a long term investment horizon, perhaps 60 years or more, workers can weather many ups and downs in investment performance, with the average return on a diversified portfolio very likely over the long run to close in on the average long term market return.

Secondly, workers can easily invest in simple, widely available, highly diversified pools of stocks, bonds and other investments, through mutual funds and other vehicles. Such diversified pools will track the general market investment returns discussed above over the long run. Indeed, with a sufficiently broad-based investment pool, the worker would basically own a piece of the economy as a whole. If the entire economy collapses, state and local governments will not be able to support defined benefit plan promises either.

Thirdly, with professional investment managers handling the specific investments for workers, investment risk can be minimized in a sophisticated and reliable manner through diversification and other market strategies.

Workers, indeed, may be able to handle this investment risk better than state and local governments. For they can do so without all of the political risks discussed above.

Transition Issues.

Another argument is that the transition to a defined contribution plan will be costly because the government will have to pay the workers leaving the defined benefit plan their share of accumulated funds to take to the new plan. But if the defined benefit plan is fully funded, then it will have the money saved in its common trust fund to pay the departing workers. If the defined benefit plan is not fully funded, then it needs to be in any event, and the government will have to bear that cost anyway.

Moreover, experience shows that those who leave defined benefit plans to take a

defined contribution option are primarily the shorter term and younger workers with little in accumulated funds in the defined benefit plan. As a result, while 63% of the government workers in West Palm Beach, Florida chose the newly offered defined contribution plan, they took with them only 14% of the assets of the old defined benefit plan. The assets of that plan actually continued to increase through the transition, climbing from $80.7 million before the conversion to $86.4 million after the conversion.[12] Similarly, while 42% of the government workers in Oakland County, Michigan chose the new defined contribution plan, they took with them only 13% of the assets of the old defined benefit plan. That plan's assets continued to increase throughout the transition as well, climbing from $440.4 million before the conversion to $513.6 million after.[13]

Because of this effect, the VRS should be sufficiently well funded to handle the adoption of a defined contribution option for workers. Moreover, the state is increasing the relative funding of the plan over time, increasing its ability to fund any transition. In any event, the reform could simply provide that workers leaving for the defined contribution plan would take with them only a proportion of the funds for their accrued benefits equal to the plan's total proportion of full funding. So if the plan were only 80% funded, workers who chose the defined contribution plan would take assets from the defined benefit plan equal to only 80% of the funding for their accrued benefits.

Conclusion

Virginia should adopt the defined contribution reform plan advanced in this study. That plan would offer state and local government workers the choice of a defined contribution retirement plan in place of their current defined benefit plans. Such a plan offers great advantages for both workers and taxpayers.

[12] Peter J. Ferrara, Pension Liberation, American Legislative Exchange Council, State Factor, 1996
[13] Ibid.

DEFINED CONTRIBUTION RETIREMENT BENEFITS VS. DEFINED BENEFITS PLAN

Assumes 5.5% Real Return on Investments

All Figures in Constant 1998 Dollars

10 Years of Work

	Defined Contribution Plan			Defined Benefit Plan	
Annual Salary	Total Investment Fund Accumulated by Retirement	Annual Annuity Benefit	Replacement Rate	Annual Benefit	Replacement Rate
$30,000	$192,143	$26,788	89%	$4,752	16%
$40,000	$256,191	$35,767	89%	$6,402	16%
$50,000	$320,239	$45,126	90%	$8,052	16%

20 Years of Work

	Defined Contribution Plan			Defined Benefit Plan	
Annual Salary	Total Investment Fund Accumulated by Retirement	Annual Annuity Benefit	Replacement Rate	Annual Benefit	Replacement Rate
$30,000	$304,634	$42,471	142%	$ 9,504	32%
$40,000	$406,178	$56,706	142%	$12,804	32%
$50,000	$507,723	$71,544	143%	$16,104	32%

30 Years of Work

	Defined Contribution Plan			Defined Benefit Plan	
Annual Salary	Total Investment Fund Accumulated by Retirement	Annual Annuity Benefit	Replacement Rate	Annual Benefit	Replacement Rate
$30,000	$370,483	$51,651	172%	$14,256	48%
$40,000	$493,977	$68,964	172%	$19,206	48%
$50,000	$617,471	$87,009	174%	$24,156	48%

40 Years of Work

	Defined Contribution Plan			Defined Benefit Plan	
Annual Salary	Total Investment Fund Accumulated by Retirement	Annual Annuity Benefit	Replacement Rate	Annual Benefit	Replacement Rate
$30,000	$409,036	$57,026	190%	$19,800	66%
$40,000	$545,381	$76,140	190%	$26,400	66%
$50,000	$681,726	$96,064	190%	$33,000	66%

(To calculate these figures, annual contributions of 10% of wages were accumulated along with a 5.5% real return on investment. At retirement, an equation was solved to determine the annuity value. The annuity value X was determined by multiplying X by the probability of living each year until age 125. X is the amount that sets the sum of all these products equal to the trust fund value at retirement.)

About the Author

Peter J. Ferrara is General Counsel and Chief Economist at Americans for Tax Reform in Washington D.C. He served in the Justice Department from 1992-93 as a policy advisor to the Attorney General and was counsel at the Washington, D.C., law firm of Shaw, Pittman, Potts & Trowbridge from 1983-1992. He has also taught law, worked in the Reagan White House and in the Department of Housing and Urban Development. Ferrara is a graduate of Harvard College and Harvard Law School.

"... a wise and frugal government, which shall restrain men from injuring one another, shall leave them otherwise free to regulate their own pursuits of industry and improvement, and shall not take from the mouth of labor the bread it has earned. This is the sum of good government, and this is necessary to close the circle of our felicities."

Thomas Jefferson
1801

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