FAIRFAX COUNTY
POST-RETIREMENT BENEFITS REVIEW

JANUARY, 2012

prm CONSULTING GROUP

AON Hewitt

TABLE OF CONTENTS

APPENDICES

A. FAIRFAX COUNTY RETIREMENT POLICY

B. SUMMARY OF GENERAL EMPLOYEES RETIREMENT INCOME PLAN

C. NUMERICAL RESULTS FOR RETIREMENT INCOME PLANS
ASSUMPTIONS FOR ILLUSTRATIONS

D. FAIRFAX COUNTY GOVERNMENT RETIREE MEDICAL AND PRESCRIPTION DRUG KEY FEATURE COMPARISON – BENEFITS IN EFFECT SPRING 2011

E. NUMERIC RESULTS FOR RETIREE HEALTH PLANS

F. COMBINED RETIREMENT INCOME AND RETIREE HEALTH PLANS

G. POLICE EMPLOYEES RETIREMENT PLANS

H. UNIFORMED EMPLOYEES RETIREMENT PLANS

I. AON 2008 REPLACEMENT RATIO STUDY

J. GOVERNANCE PAPERS

SECTION I

EXECUTIVE SUMMARY

Fairfax County engaged Aon Hewitt in November 2010 to undertake a comprehensive review of the County Government's postretirement income and health benefits. Included were benefits for general County Employees, Police Officers, and Uniformed Services. Briefly we found the following:

- Aon Hewitt reviewed Fairfax County's Retirement Policy and Mission statement. We made some comments on certain aspects of the policy but, in general, we believe the statement is sound and provides a useful guide for making decisions about the County's Retirement Plans.

- The program structure – defined benefit pensions and postretirement medical – supports the principal goal of the program – financial security in retirement for career employees – and is consistent with the Fairfax County Retirement Policy and Mission Statement.

- The current program specific provisions support the Fairfax County Retirement Policy and Mission Statement. However, there are opportunities for modifications in the area of eligibility for retirement and the Supplement paid prior to Social Security retirement age.

- The County Employees' Retirement System benefit plans are very strong, being more generous than those of your competitor group. This is primarily driven by the defined benefit plan where benefits exceed those of most competitors.

- The County Employees' Retirement System benefits exceed the minimum retirement income needed to support the employee's current lifestyle in retirement.

- The Police Officers Retirement System provides benefits that are comparable to, though slightly lower in value than, the average of the competitor group.

- The Uniformed Retirement System provides benefits that are comparable to, though slightly greater in value than, the average of the competitor group.

- Governance of the plans is strong and consistent with sound practices for pension plan governance.

Details of our results are included in this study.

The study was completed in six phases.

Phase 1 was a series of discussions with Fairfax County management to discover the County's philosophy with regard to employee benefits in general and retirement benefits in particular. There was a discussion of alternative benefit structures and some general analysis of the current benefit structure versus employee income needs.

During Phase 1 we identified the types of employees covered and the pattern of retirement for each of the groups under review and reviewed plan documents, actuarial reports, retirement handbooks and prior plan studies.

Finally in Phase 1 we identified the employer groups that would be comparators for purposes of benchmarking the Fairfax County Benefit plans. These were:

- Fairfax County Public Schools (Fairfax PS)
- Commonwealth of Virginia (VRS)
- City of Alexandria (Alex)
- Arlington County (Arling)
- Loudoun County (Loudoun)
- Montgomery County (Mont)
- Prince George's County (PG)
- Prince William County (PW)
- Federal Government (Fed)

In Phase 2 we benchmarked the Fairfax County plans for each of the three groups (Employee, Police Officers, and Uniformed) against the benefits of the comparators identified in Phase 1. These benefits were assessed on a present value basis that allowed for comparison of disparate plan provisions.

Phase 3 was a discussion of our preliminary results with Fairfax County management. This allowed a discussion of possible plan changes in both pension and medical benefits. Phase 4 was a refinement of our results and the evaluation of our recommendations by the Plan's actuary. Phase 5 was a presentation of our final results for Fairfax County review. Phase 6 was the preparation of this report. We have identified at the conclusion of our report a number of options which the County might consider, with respect to both the retirement income and retiree health care plans. We also identify those broader issues which will affect the consideration of those options.

We respectfully submit this report as the result of our efforts. The report presents our findings and conclusions, as well as documents the basis for the conclusions we have reached and our recommendations of options for consideration by Fairfax County's management and elected leadership. We would be pleased to answer any questions you have regarding the substance of this report.

SECTION II

THE FAIRFAX COUNTY RETIREMENT POLICY AND THE STATUTORY FRAMEWORK FOR RETIREMENT PLANS IN THE COMMONWEALTH OF VIRGINIA

The Fairfax County Retirement Policy

The Fairfax County Retirement Policy (the Retirement Policy) was promulgated in January, 2001, and is a two-part document addressing retirement income as well as retiree medical benefits. We reviewed the Retirement Policy and in our judgment, it continues to provide a sound basis for guiding the County's leadership in considering in what form to maintain retirement benefits. The Retirement Policy supports the key goal of maintaining a competitive retirement program as a necessary component of competitive total compensation. That goal in turn requires periodic review as the competitive framework changes, both among governmental employers and in the private sector where the County must compete for people with the talent and skills to serve the County's citizens and taxpayers.

It is instructive to emphasize at the outset that the current Retirement Policy is grounded in the assumption that a defined benefit plan will continue to be the cornerstone of County programs to assure that career employees have adequate replacement of income at retirement. We have included a copy of that Retirement Policy in its entirety at Appendix A of this review. We quote immediately below key excerpts from the policy:

> ***Mission***
>
> *As a progressive employer, Fairfax County strives to provide a responsible, tax efficient, competitive retirement program as a significant source of financial security for career employees as well as valuable benefits for all employees as recognition of their employment with the County.*
>
> ***Career Employee***
>
> *A career employee is an employee eligible for career benefits. The term does not necessarily reflect the full working career of an employee in our society, but more the full and sufficient contribution of service to the County for full-career benefits. Career benefits mean the level of retirement income the County supports as appropriate to meet the financial security needs of its career employees.*

Public safety employees – including police, fire, other uniformed employees and support employees – are targeted for a career defined as completion of 25 years of service with the County. Public safety employees' careers reflect the physical demands of the job.

Benefit Levels

The goal for income replacement at retirement is to replace disposable income – otherwise considered net take home pay. Usually this means replacing between 60% and 80% of final pay. General public policy is that retirement benefits not be designed to exceed 100% of final pay at any point during retirement, including when Social Security benefits become payable.

Maintaining Purchasing Power

Provisions should be made to protect benefit purchasing power through periodic increases in retirement benefits to reflect inflation. This should be done equally among retirees of the three plans.

Attraction and Retention

While some jobs within the County may be highly competitive, the retirement program is not a critical component to meet retention and attraction needs. However, this can become an issue and the opportunity to add some defined contribution benefit alternatives should be addressed from time to time when other benefit enhancements are considered to enhance benefits for shorter-service participants if needed because of retention issues.

Aon Hewitt reviewed the Policy to assure it has value in the current environment. We note that a Retirement Policy has to be consistent with the workforce planning of the County. It also must result in acceptable costs and be within the County budget. We do not make judgments in those areas.

In general terms the Policy is very sound. One of the nation's larger counties by population, Fairfax has the third highest median income in the country. It has a Retirement Policy that is designed to provide strong retirement programs – both income and medical – to its employee group, and plans in place that support the key goal of providing financial security in retirement for career employees.

The definition of a career employee as one with 25 years of service is generally consistent with other public sector employers, especially in the public safety (police and fire) group. The targeted service tends to be somewhat short for the general employee population, as governments have begun to move retirement ages to later ages. We are also likely to see higher retirement ages in federal programs as Social Security and Medicare are modified in the future, just as we have already seen higher retirement ages for Social Security. The earliest retirement age of 50 and the general target of age 55 with 25 years of service were quite common at one time. The movement at all levels, public and private, has been to require later ages and longer periods of service for full retirement.

As to the plan structure, the policy does not seem to require a defined benefit plan but its targets (early retirement ages, a broad range of retirement ages, purchasing power protection) require that approach. We also believe defined benefit plans to be the most financially efficient way to provide retirement income.

Overall and subject to the workforce consistency and affordability, we believe the Retirement Policy remains a good guideline for designing a retirement program.

In addition to the County's sound Retirement Policy, there are other reasons that we believe that a defined benefit plan should continue as the foundation of the County's retirement programs. These include:

- At least with respect to the peer group comparators with whom the County compares its benefits and compensation programs periodically to assess their competitiveness, a defined benefit plan as the cornerstone of the retirement programs remains the norm. Of all the jurisdictions in the metropolitan area of which Fairfax County is a part, only the District of Columbia does not have a defined benefit plan.

- To achieve any given level of income replacement that is intended, which is and we believe should be an explicit goal of Fairfax County's Retirement Policy for career employees, a defined benefit plan is the most efficient way to create that intended outcome. We discuss this subject in more depth in Section X of this report, Defined Benefit and Defined Contribution Plans.

- Along with pay and other benefits and the work environment, properly designed retirement plans provide incentives to help recruit and retain the people that Fairfax County will need; and

- For some employers, an additional consideration is to assure that employees who have served the employer over a career will have adequate resources when it is time to retire. A defined benefit plan provides the best vehicle for providing income to both incent and enable employees who are at the end of their productive careers to retire.

- A defined benefit plan can act as a convenient and efficient vehicle to execute workforce management strategies.

The Statutory Framework in the Commonwealth of Virginia

There is a key additional consideration that applies to all local government jurisdictions in Virginia that arises from the requirements of the 1950 Code of Virginia, Title 51.1 Pensions, Benefits, and Retirement (the Code).

The Code, in § 51.1-800, sets forth the requirement that local governmental jurisdictions maintain a retirement plan for employees, as follows:

> *§ 51.1-800. Counties, cities, and certain towns to establish local systems or participate in Virginia Retirement System*
>
> A. *Every county and city, and every town having a population of 5,000 or more, shall provide a retirement system for those officers and employees listed in subsection B either (i) by establishing and maintaining a local retirement system which provides a service retirement allowance to each employee who retires at age sixty-five or older which equals or exceeds two-thirds of the service retirement allowance to which the employee would have been entitled had the allowance been computed under the provisions of the Virginia Retirement System or (ii) by participating directly in the Virginia Retirement System.*
>
> B. *The following persons shall be covered by a retirement system as provided in subsection A:*
>
> 1. *Officers and employees who are regularly employed full time on a salaried basis, whose tenure is not restricted to temporary or provisional employment.*
>
> 2. *Officers and employees who are regularly employed full time on a salaried basis, whose tenure is not restricted to temporary or provisional employment by an organization other than a public school board that functions solely within the boundaries of a county, city, or town, unless the cost of the organization's operation is borne by (i) users of services, (ii) more than one county, city or town, or (iii) an entity other than a county, city, or town.*

It is our understanding that the County's counsel has interpreted the statute to mean that the maintenance of a defined benefit plan that meets the test set forth in the statutory language above is required. Stated another way—this section would preclude the County's substituting a defined contribution plan for the current defined benefit plan as the sole retirement income vehicle of employees.

While we are not authorized to engage in the practice of law, we should note that we agree with this conclusion for a simple mathematical reason. The Code sets forth in this section the requirement that the service retirement allowance for "each employee" be at least two-thirds of the service retirement allowance to which the employee would have been entitled under VRS (referred to in this report as the "two thirds requirement"). While it is theoretically possible that a defined contribution plan could be designed with contributions sufficiently high to achieve this result in virtually every case, there is simply no way mathematically to assure that the result would be achieved for each and every employee, which is what the statute requires.

The problem is that the test must be met for each employee, and at every age and service combination that might apply. And even if contributions were set at levels that provided, on average, a significant cushion above the threshold set forth in the statute—two-thirds of the VRS service allowance—there is no way to control for unforeseen events that might adversely affect the outcome, including:

- The investment choices that the employee will have made over a career (including short careers that would still qualify for a service allowance under VRS) and particularly those choices in place at retirement;

- Annuity prices that might pertain at the point at which the statutory test applies;

- The questions that might arise from the consequences of future investment decisions or from longevity that exceeded expectations if the participant did not elect to annuitize at retirement; and

- Variables associated with popular features in 2012 in defined contribution plans such as in service distributions, loans, broad employee-directed investments, etc. to the extent that such a plan incorporates them.

Even if this theoretical defined contribution plan required the participant to purchase an annuity at retirement (which would be an extremely unusual feature in such a plan), it is mathematically impossible to achieve 100% certainty that the two thirds requirement set forth in the statute will be met for every retiring employee.

We should note that we are aware of two jurisdictions in Virginia that have reached a contrary conclusion. The City of Richmond since July 1, 2006 has required all newly hired general employees (with the exception of senior executives) to participate in a defined contribution plan with a city contribution based on years of service as follows:

Years of Service	Employer Contribution
Less than 5 years	5% of pay
5 to 9 years	6%
10 to 14 years	8%
15 or more years	10%

This plan is also an option available to police officers and firefighters, in lieu of participating in the defined benefit plan.

In addition, the City of Charlottesville established a defined contribution plan effective July 1, 2001 and offered employees a one-time opportunity to elect that plan in lieu of continuing to participate in the Charlottesville Supplemental Retirement Fund (City Pension Plan), a defined benefit plan. In addition, new hires since that time are given a one-time opportunity to elect either the defined contribution plan or the City Pension Plan.

While the City Pension Plan continues to be available to both current participants and new hires and meets the statutory standard under the Virginia Code, for those participants who elect the defined contribution plan the questions we raise above still pertain, in light of the requirement that the service allowance at retirement must meet the statutory test for each employee.

We do not make any definitive judgment as to whether these plans meet the Virginia Code requirements but we do believe there is sufficient uncertainty in this area to cause us some concern.

So, both to achieve the County's goal of sufficient retirement income and to comply with the requirements of the Virginia Code, we believe that the defined benefit plan should continue to be the cornerstone of the County's retirement programs for employees. We do, however, discuss options for the plans that might be considered in Section XIII of this report.

SECTION III

BENCHMARKING – HOW DO FAIRFAX'S PLANS COMPARE?

Phase 2 of the Statement of Work is a competitive benchmarking of the Fairfax County retirement plans against comparators agreed to in Phase I. Provisions to be reviewed include retirement benefit designs, retirement eligibility and early retirement provisions, and employee contribution requirements. Benefits that were valued included:

- Benefits that provide retirement income. This included both defined benefit plans and defined contribution plans. These were combined in the manner noted later in this section.

- Benefits that provide retiree healthcare coverage. These included medical plans and prescription drug plans.

County retirees are also eligible for life insurance benefits. This study does not include an analysis of this benefit as our focus is on benefits provided to retirees while living.

Fairfax Plans Included

Fairfax County Plans included in our analysis are:

- Fairfax County Employees' Retirement System (Plans A & B)
- Fairfax County Police Officers Retirement System
- Fairfax County Uniformed Retirement System (Plan D)
- Fairfax County CIGNA Open Access Plus (OAP) High Option Health Plan with Prescription Drugs

There is a retirement income plan that covers full-time teachers and related educational personnel, instructional assistants, administrators, administrative support and technical staff members of the Fairfax County Public Schools (FCPS). However, the bulk of the plan's benefits are provided through the Virginia Retirement System (VRS) and the FCPS plan is not treated as a primary plan. The Educational Employees' Supplementary Retirement System of Fairfax County (ERFC), together with the main program, VRS, is included as a comparator to the Employees' Retirement System.

In addition, retirees are eligible to choose from several options for health coverage – CIGNA OAP High, CIGNA OAP Low, CareFirst Point-of-Service (POS), and Kaiser (for pre-Medicare retirees only). We chose to benchmark the CIGNA OAP High Option as it is the option with the most retiree enrollments at the time of this study.

Comparators

A significant element of this review is a comparison of the benefits against those of various governmental entities. These governmental units were chosen in discussions with the County and they represent employers competing in the same local labor market as Fairfax County for similar types of employees.

The plans of the following jurisdictions were valued:

- Fairfax County Public Schools (Fairfax PS)
- Commonwealth of Virginia (VRS)
- City of Alexandria (Alex)
- Arlington County (Arling)
- Loudoun County (Loudoun)
- Montgomery County (Mont)
- Prince George's County (PG)
- Prince William County (PW)
- Federal Government (Fed)

In valuing comparator retirement income plans, we chose the plan most appropriate for the Fairfax employee class. General employees were valued against the plans for the general employees of each comparator. Police plans were valued against police plans and the Uniformed Plan D was valued against plans covering uniformed employees or fire employees where they were specified.

In valuing comparator retiree health plans, we chose the plan most similar in structure to the County's CIGNA OAP High Option.

The Employee Examples

In order to make our examples meaningful to Fairfax County, we selected retirement examples that reflected the Plans' experience and the likely future retirement patterns of employees. We looked to three sources for selecting our examples. These were:

- The actuarial valuation of each plan;

- Supplemental average retirement age and service information provided by the County;

- Discussions with the County as to the appropriate age/service/salary combinations

Based on these sources we adopted the following examples.

Employees' Plan – Each of the employee examples meets the "Rule of 80." The "Rule of 80" means that a retiree has reached the point when his or her age plus service is at least 80, and he or she is then eligible for an unreduced pension benefit. This selected condition for examples is based on the data but also on the obvious incentive career employees have to work until that condition is met.

The average non-school employee retires at age 61 with 21 years of service. Based on discussions with Fairfax County staff we used a salary at retirement of $65,000. It should be noted that employees tend to retire at the end of long careers and will normally have a higher salary than the average employee.

County employees working at the Fairfax County Public Schools and not covered by the plans for educational employees (school employees) retire on average at age 63 with 18 years of service. Using the same approach as for the non-school employees we settled on a salary at retirement of $35,000.

We chose the following age/service combinations for other examples: Age 55 with 25 years of service, age 57 with 23 years of service, age 65 with 25 years of service.

Police Officers Plan – Based on the valuation and data provided by the County, police retire on average at age 51 with 26 years of service. We used an average salary of $90,000. Because police officers typically retire early, we limited the analysis to that single example.

Uniformed Plan – Based on the valuation and data provided by the County, uniformed personnel retire on average at age 52 with 26 years of service. There were some indications that some uniformed personnel retired at rather high salaries. This may be attributed to large sick leave banks, and the accumulation of unused sick time, that are converted to salary at the time of retirement. We used an average salary of $90,000 to be consistent with the police group. Because uniformed staff personnel typically retire early, we limited the analysis to that single example.

Valuing Benefits

There is a more complete discussion of pension benefit values and retiree health care benefit values in Sections IV and V, respectively. As an overview, we provide Fairfax with two comparisons – one for the current year and one measuring the value of the benefit over the retiree lifetime.

In the first case, we show the pension benefit at retirement or the health care plan in the year of retirement. This gives an initial look at how benefits compare. However, benefits vary in many ways, in form and over time. Some examples of how such differences arise include the following:

- The Fairfax Employees' Plan provides supplemental benefits when the employee retires before the Social Security Normal Retirement Date. This extra benefit is referred to as a Social Security supplement and is identified in the Fairfax Employees' Plan as the Pre-Social Security Benefit. The Employees' Plan provides a higher benefit before the employee's eligibility for Social Security normal retirement age – age 66-67 for unreduced benefits as defined by Social Security – and a lesser benefit after full Social Security eligibility.

- The cost-of-living escalator may differ among plans, increasing benefits at differing rates in the future.

- Defined contribution plans do not provide a fixed level of income after retirement. This could be measured by the annuitized value (in theory, how much an insurance company would provide in an annual benefit for the sum of money in the defined contribution plan, if the assumed discount rate were available.)

- In the case of retiree health care benefits, a different level of benefit is paid from the plan before Medicare eligibility and after becoming eligible for Medicare.

To overcome these differences and to get a quantitative measure of the value of benefits, we calculated the "present value" of those benefits over the life of the retiree under each plan. Conceptually, the present value is the total amount of money needed to provide the benefit over the retiree's lifetime if it were invested at a specified annual rate of return, generally called the discount rate.

There are other methods for valuing and comparing benefits but most of them are flawed. The principal alternative would be the use of cost – what the plan costs each jurisdiction for the current year or some relatively short period. However, cost can vary for many reasons, and therefore we did not compare plans on a cost basis. Cost variations include, for example:

- Demographic differences – each jurisdiction's population could have a different make-up, leading to cost comparison issues. For example, a younger employee population generally has a lower benefit cost than an older employee population, because there is more interest discounting in the determination of their liability and because younger populations will have lower claims costs. The make-up by gender of the participants in the various employers' plans will have an effect on costs. For example, a heavier concentration of females in a group will increase the cost of that group due to their longer life expectancy. The percentage of employees married in a population will also impact the comparison of costs, if one group has more married lives than another. A higher percentage of married retirees in a group will certainly lead to higher retiree health benefit costs relative to a group with less married retirees.

- The availability of benefits from other employers (via an employed spouse, or prior employment). Especially for groups near Washington, DC where the Federal Government has a large workforce, we often find costs to be distorted when comparing groups with greater or lesser access to two plans. This can be especially problematic in the area of health care costs, where the percentage of participants covering family members can vary greatly.

- For funded benefits, the level of current funding, past investment returns, how long the plan has been in existence and the pattern of benefit changes would have significant impact on current cost and the comparison across employer plans.

For these reasons we believe the use of present values of the benefit earned at retirement gives the best measure of the comparative worth of differing plans.

Assumptions Used to Value Benefits

In order to value the benefits, we need to make assumptions about the future, and the past where we do not have actual information available. We elected to use the assumptions selected by the various Fairfax County plans' actuary and reviewed the recent experience study results that the actuary performed. No one has analyzed the retirement experience of the plans in more detail. Use of these common actuarial assumptions is critical to producing an apples-to-apples comparison. A brief summary of the principal assumptions is as follows:

Assumption	Use	Value
Interest rate	Discounting present values of defined benefits, accumulating employee contributions, and accumulating defined contribution plans	7.5%
Salary scale	Used to estimate salaries back to hire or to a future retirement date	4%
Inflation	Used to increase benefits after retirement in conformance with the plan provisions	3%

Assumption	Use	Value
Trend	The rate of increase in the cost of medical benefits in the future	From the FAIRFAX COUNTY GOVERNMENT Post-Employment Benefits (Other than Pension) Actuarial Valuation as of July 1, 2010: Currently 9.25% for pre-65 benefits and 7.25% for post-65. Rates decline over time, with a long term assumption of 5%.

In valuing retirement income benefits we used the terms of the plans as they exist on July 1, 2011. In valuing retiree health benefits, we used the terms of the plan in effect during spring 2011.

Employee and Employer Contributions

In valuing the various employer plans, we broke out the portion of the value funded by employees (or retirees in the case of health care benefits) and the portion funded by the jurisdiction. This split was based on the level of employee/retiree contribution required by the plan.

In public plans, employers are permitted to "pick up" employee contributions under IRS code 414(h)(2). Due to the tax-deferral aspect of this "pick up" for employees, it is near universal for governmental plan sponsors to structure their plans with an employer "pick up." Some believe the resulting contribution is now an employer contribution rather than an employee contribution. However, in some cases the employee's salary was actually reduced when picked up or the employee made a trade off in wages or future increased wages.

The way that the Virginia Retirement System (VRS) determines and accounts for employee contributions presents a particular challenge analytically, revolving around the question of whether and when those contributions should be viewed as employee contributions made by participants, or employer contributions made on behalf of plan participants by the participating employer.

The VRS requires a 5% of pay contribution by employees. In December 2011 the Joint Legislative Audit and Review Commission (JLARC) did a review of retirement benefits for Virginia employees that shines some light on the subject.

That report (page 8) states:

> *Several aspects of the State's retirement plans contributed to their competiveness. The clearest contributor was the fact that, at the time, employees did not have to pay for any portion of the cost of their benefits. While the Code of Virginia required an employee contribution of five percent of salary, the State*

paid this on employees' behalf. In 2008, Virginia was one of only four states that did not require public employees to contribute to the cost of their retirement benefits.

Page 66 of the JLARC report states (emphasis added):

In 1983, the General Assembly altered the cost-sharing arrangement between members of the plans for State employees and the State by choosing to pay the member contribution on behalf of employees <u>in lieu of a salary increase</u>. Since that time, State employees have not been required to contribute to the cost of their defined benefit plans.

It could be argued that the almost 30 years of time since the change had mitigated the pay reduction. However, for employees of the Commonwealth of Virginia, from Page 21 of the JLARC report:

As shown in Figure 3, in its 2011 total compensation analysis, Mercer benchmarked the value of VRS Plan 1 employees' total compensation package at 94 percent of the market median.

In any event, an analysis of the current total compensation for Fairfax County and for the comparator group, including the Commonwealth of Virginia employees is beyond the scope of this project.

Additionally,

- The contributions are accounted for separately in an employee contribution account.
- The account accrues interest at 4% (irrespective of the investment return earned by VRS on assets which back the system) compounded annually on the balance as of the previous June 30.
- A participant who is not vested is entitled to a refund of the contribution account including interest when separating from service.
- Vested participants may elect to take their contribution account (including interest) or to leave those contributions in the plan to be eligible for a deferred benefit at retirement.

Thus, while the treatment of "picked up" contributions may be open to debate, a pick up of employee contributions, together with a reduction in salary (or a non-increase) is equivalent to an employee contribution. In addition, the picked up contributions are treated in all ways as if they were made by the employee.

If this plan were implemented de novo at Fairfax for its employees, the plan would call for a 5% contribution. If Fairfax elected to pick up the contributions in full, it is reasonable to suggest Fairfax would adjust pay, either a pay decrease or no pay increase for some period of time.

Individual jurisdictions within the VRS may elect to pick up employee contributions. We identified three other comparator jurisdictions where there is a pick up of employee contributions that are treated (and communicated) as employer contributions. These are Fairfax Public Schools, Loudoun County, and Prince William County.

In the Report of the City of Alexandria Ad Hoc Retirement Benefit Advisory Group to the City Council and City Manager (November 9, 2011) there was the following comment. The footnote applied to the total Alexandria VRS contribution but would also specifically apply to employee contributions that were picked up by the City.

> *The City's "employer contributions" to VRS are really substitute salary. If the City did not pay contributions to VRS, all or at least some portion of this money would have been paid to employees as salary. If paid as salary, this money would have been subject to income taxes and payroll taxes. Provisions of the Federal and State tax codes exclude employer contributions to qualified pension plans from the employees' taxable income and exclude the contributions from payroll tax obligations of both the employer and the employee, reflecting a public policy of encouraging retirement savings over current consumption.*

In the Maryland jurisdictions, where the Counties pick up the employee contribution, they are all communicated as employee contributions.

<u>For purposes of this study, we elected to use the terms of the plan when deciding if there is an employee contribution required.</u> If the plan called for an employee contribution, it was treated as such, whether or not picked up by the governmental body. However, we should emphasize that in making judgments about the relative strength of the plans provided by Fairfax County it is certainly arguable that for those jurisdictions that have communicated that the employer is making the contributions on the employees' behalf, all the contributions could be viewed as employer contributions. In Appendix C, to illustrate this point, we include results of selected Employees' Plan examples showing the outcomes if all defined benefit contributions under VRS were treated as employer contributions.

SECTION IV

BENCHMARKING RESULTS: GENERAL EMPLOYEES – RETIREMENT INCOME PLANS

This section reviews the approach and results of our competitive benchmarking of the Fairfax County retirement plans for general employees. Each of the comparators chosen maintains plans similar to those sponsored by Fairfax County. The comparators are (retirement income plans in parentheses):

- Fairfax County Public Schools (ERFC and VRS)
- Commonwealth of Virginia – VRS (pre and post 7/1/10)
- City of Alexandria (VRS and supplement)
- Arlington County (Employees' Retirement System)
- Loudoun County (VRS)
- Montgomery County (RSP)
- Prince George's County (Maryland EPS and supplement)
- Prince William County (VRS)
- Federal (FERS and TSP)

Comparing Benefits

A summary of each plan benefit as we valued it is included in Appendix B. There were some special issues in comparing retirement income benefits.

- Several of the plans are defined contribution or provide benefits that mimic a defined contribution plan.

- Many of the plans have provisions that trigger at various ages. For example, the Fairfax County plan has a supplemental benefit payable from early retirement to the Social Security Normal Retirement Age. That is currently age 66 for those employees who retire today and will gradually rise to age 67.

- The Federal program provides a supplement to age 62 under certain eligibility conditions.

- The plans have differing averaging periods for the salary portion of the benefit and cost-of-living provisions vary.

To provide apples-to-apples comparisons, we used a lump-sum present value approach. In basic terms, a present value converts a number of payments in the future to a value today.

That amount of money, invested at a rate of return called the discount rate, would provide all those payments in the future with nothing left at the end.

We also used the current plan benefit in our comparisons. Over time the benefits at Fairfax County have changed, and there have been changes at most comparators. The impact of those changes (in benefit levels and contribution rates, for example) is not captured in these values. The results, while based on employees retiring in the current year, should be thought of as the value of the current plan structure and the relative values as a benefit payable to an employee retiring today having worked under the current plan terms for the employee's entire career.

The following is a description of the values shown for the Fairfax Plans and for each comparator plan.

Basic Benefit	This is the benefit calculated under the main formula of the plan in question. In the case of Fairfax, for example, it is the benefit payable without regard to any temporary supplement. In a few cases, the benefit is not shown. These are generally defined contribution plans that do not provide for a fixed benefit amount.
Value of the Basic Benefit	This is the present value of the benefit. It is important to note that this is the basic benefit – there are no cost-of-living increases assumed nor is the value of the supplement included.
Value of the Supplement	If a plan provides a temporary supplement (as does the Fairfax Employees' Plan), this is the present value of that benefit, without the value of cost-of-living increases.
Value of C-O-L Provisions	This is the present value of future increases in benefit due to increases associated with a cost-of-living provision.
Total Value of Benefit	The sum of the above pieces, this represents the amount of money needed, invested at the discount rate to provide the benefits noted, including the supplement and cost-of-living increases.
Value of Employee Contributions	This assumes employee contributions are accumulated at the discount rate (not the rate provided for in the plan) to retirement. It is the employee paid portion of the value.
Employer Provided Value of Benefit	This is the difference between the Total Value and the Value of Employee Contributions. It represents the portion of the benefit provided by the employer.

It would be of value to describe in more detail what the results mean.

For example, from the illustration for Fairfax Plan A below, assume a retiree is age 61 and is getting an annual lifetime benefit of $24,346, or a monthly benefit of $2,028.83. The present value of that benefit is $251,352 using a discount rate of 7.5% and a specified mortality table. If that $251,352 is invested at 7.5% we will be able to take each of the retiree's payments out of the fund and have nothing left after the retiree receives his last payment.

By valuing benefits in this manner we can compare benefits that might be different in timing or type. As a side note, the present value of a defined contribution plan is the account value at the time of retirement.

Here is a sample of the charts included in each benefit comparison.

Reference Employee	
Age	61
Past Service	21
Retirement Age	61
Base Salary	65,000
Total Salary	65,000

Results

	Fairfax A	Fairfax B
Basic Benefit	24,346	27,051
Value of Basic Benefit	251,352	279,280
Value of the Supplement	55,818	55,818
Value of C-O-L Provisions	76,433	84,573
Total Value of Benefit	383,602	419,671
Value of Employee Contributions	80,467	107,223
Employer Provided Value of Benefit	303,135	312,448

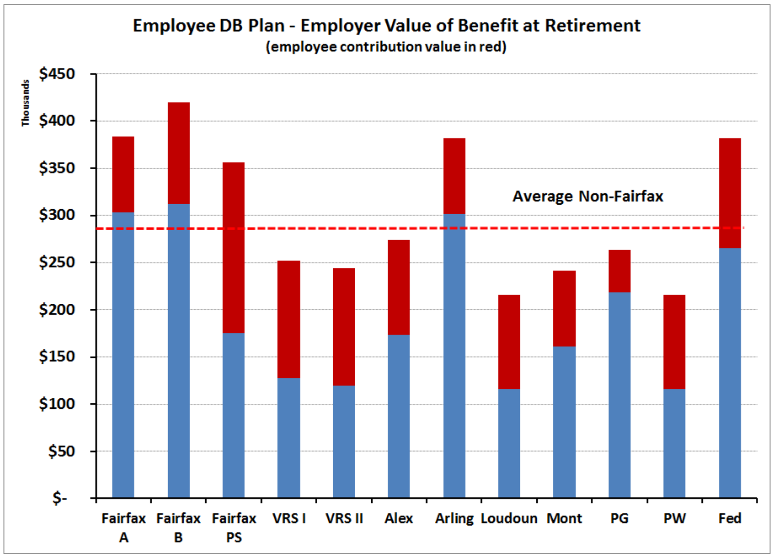
The top portion of the chart lists the specifics on the retiree we are valuing – in this case the employee is age 61 with 21 years of past service. The employee earned $65,000 in his last year of employment – this is not his final average earnings. That is determined in the various calculations by assuming a 4% back salary scale, resulting in a final average earnings rate of $62,532 in the Fairfax plan, for example.

The County Plan

We looked at both Employees' Plan A and Plan B. It is interesting to note that Plan B provides a benefit that is about 9% higher than the Plan A benefit. However, just under 75% of this added value is bought by higher employee contributions. The employer provided benefit under Plan B is about 3% higher than Plan A.

We compared these benefits to the comparator group on a present value basis, using the assumptions noted above and salaries of $65,000 and $35,000. The full results are in Appendix C. However, here are the graphical results for an employee who is age 61 with 21 years of service and a salary of $65,000. We are showing the value of employee contributions in red and the value of employer provided benefits in blue.

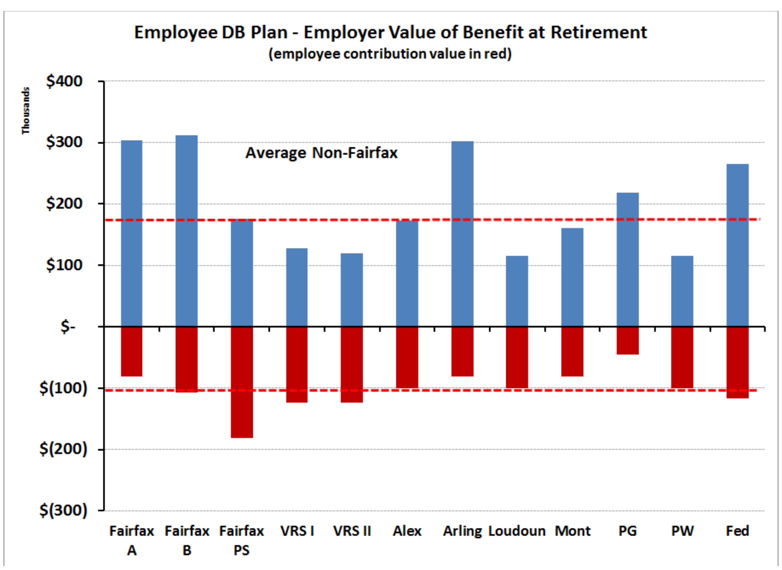
Age 61 with 21 Years of Service / Salary $65,000



As can be seen, the Fairfax benefits are very strong. In fact, the Plan B benefits are the highest shown and the Plan A benefits are larger than all but the Federal Government (though Arlington is very close.)

The Plan A benefits, with an employee value of $81,000 and an employer value of $303,000, exceed the average of the comparator group by 35%. Plan B, with an employee value of $107,000 and an employer value of $312,000, exceeds the average of the comparator group by 38%. When we focus on the split between the Fairfax-provided piece and the employee provided piece, the results are:

Age 61 with 21 Years of Service / Salary $65,000



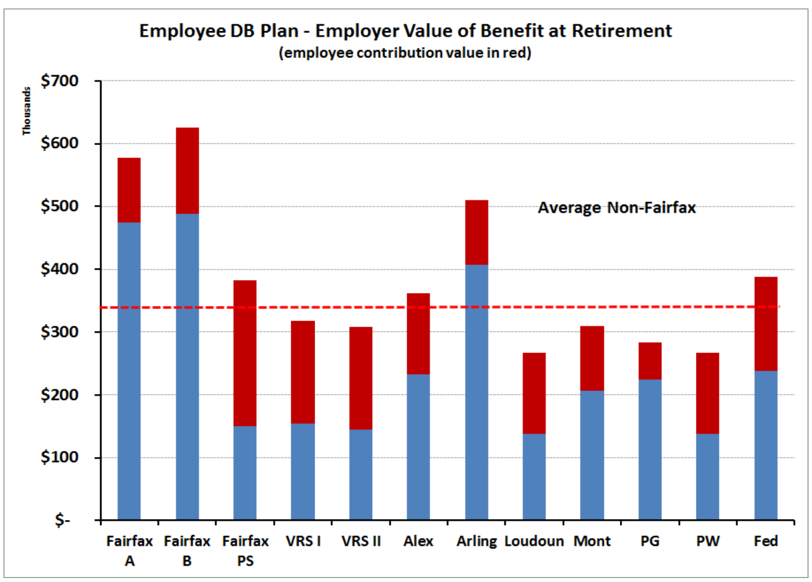
Plan B has the highest employer provided value and Plan A falls in line with the Arlington benefit. Plan B, at employer provided value of $312,000, exceeds the average employer value by 75% and Plan A, at employer provided value of $303,000, by 71%. Plan B has employee contributions at $107,000 that are just about equal to the comparator group while Plan A, at $81,000, requires contributions about 20% less than the average for the other comparators.

Other Age and Salary Combinations

The relative results are almost the same for a $35,000 salary, reflecting the experience of a School system employee covered by these plans. Plans A and B are very strong and the same general relationship holds for the employer portion of the benefit and the employee contribution requirement.

It can be noted that the temporary supplement payable to Social Security Normal Retirement Age under the Fairfax Employees' Plans provides a significant portion of the added plan value. At age 55 it shows up strongest. Here are the graphical values for an employee at age 55 with 25 years of service and a $65,000 salary.

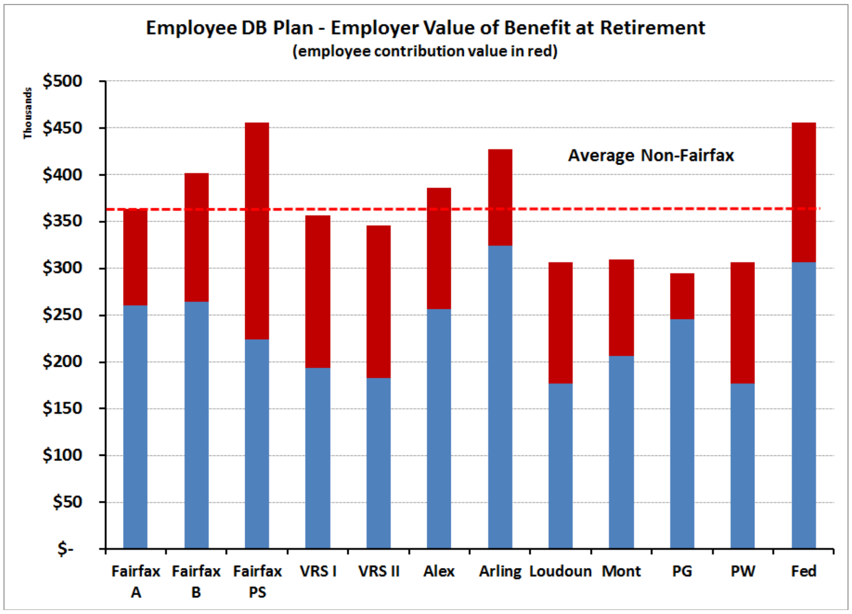
Age 55 with 25 Years of Service / Salary $65,000



At this age and service combination, both Plans A and B are well above the comparator group. Plan A, with an employee value of about $100,000 and an employer value of about $480,000, is 50% higher and Plan B, with an employee value of about $130,000 and an employer value of about $490,000, is 84% higher than the average of the comparator group. The employer portion is leveraged and both plans more than double the value of the comparator employer value.

However, at age 65 when the supplement is minimized (payable for one more year to age 66), the graphical value is:

Age 65 with 25 Years of Service / Salary $65,000



Here Plan A is just about average and Plan B exceeds the average by about 10%. Both Plans exceed the employer provided value, but only by 13% and 15% respectively.

Overall

The Fairfax Employees' Plans provide generous benefits when compared to the comparator group. Besides the overall level of benefit provided, a significant portion of the added value comes from the temporary supplement available for those who retire on a normal service retirement before they are eligible to receive full Social Security benefits. That added value erodes as a participant approaches Social Security normal retirement age and disappears entirely when that age is reached.

SECTION V

BENCHMARKING RESULTS: GENERAL EMPLOYEES—RETIREE HEALTH CARE PLANS

This section reviews the approach and results of our competitive benchmarking of the Fairfax County retiree health care plans for all employees. Although Fairfax County offers several choices to retirees for health coverage, we benchmarked the CIGNA OAP High option since it had the largest retiree enrollment at the time of the study. Each of the comparators chosen maintains retiree health care plans and subsidies to those plans similar to the CIGNA OAP High Option plan sponsored by Fairfax County. The comparators, and the health plan option we used in benchmarking, are:

- Fairfax County Public Schools (CareFirst Blue Preferred PPO)
- Commonwealth of Virginia – (Anthem PPO)
- City of Alexandria (UnitedHealthcare POS)
- Arlington County (CIGNA POS)
- Loudoun County (CIGNA PPO)
- Montgomery County (CareFirst High Option POS with Standard Rx)
- Prince George's County (CIGNA PPO)
- Prince William County (Anthem KeyCare Enhanced PPO)
- Federal (BCBS Standard PPO)

Comparing Benefits

A summary of each jurisdiction's key benefit features as we valued it is included in Appendix D. These features include a retiree's out-of-pocket costs for specific, and highly utilized, health services, and the jurisdiction's explicit subsidy provided to a retiree to purchase coverage.

Unlike retirement income plans, Fairfax County provides the same benefits and explicit subsidy to all employee groups, with no distinction between general employees, police, and uniformed employees. With the exception of Prince George's County, all comparators provide the same retiree health care benefits to all employee groups. The only distinction that Prince George's County makes in its retiree health care program is to charge Public Safety retirees a lower rate for prescription drug (Rx) coverage.

In retiree health care, the age of a retiree (and their covered dependents) plays a significant role in benefits provided and in the cost of those benefits. All comparators recognize Medicare as the first and primary payer of health costs, starting generally at age 65. With Medicare as the first payer for medical services, each employer's plan pays second on a medical claim which results in lower costs to retirees and to the employer for a person entitled to Medicare.

We are illustrating the costs for a retiree and the comparator jurisdictions on a 2011 basis. And, similar to the retirement income comparisons, we also used a lump-sum present value approach, separately identifying the value of coverage for retirees prior to age 65, and after age 65. In basic terms, a present value converts a number of payments in the future to a value today. That amount of money, invested at a rate of return called the discount rate, would provide all those payments in the future with nothing left at the end.

We also used the current plan benefit in our comparisons. Over time, the benefits at Fairfax County have changed and there have been changes at most comparators. The impact of those changes (in benefit levels and contribution rates, for example) is not captured in these values. The results, while based on employees retiring in 2011, should be thought of as the value of the current plan structure and the relative values as a benefit payable to an employee who will retire with coverage under the current plan for all their retirement years.

A current year (2011) example is as follows. Assume a Fairfax County employee retires with 21 years of service. In one illustration the retiree is age 61 at retirement. In the other illustration, the retiree is age 65 at retirement.

Reference Employee	Pre-Medicare	Medicare
Age at Retirement	61	65
Years of Service at Retirement	21	21
Total Cost of Coverage in 2011	$9,204	$6,091
Retiree Cost of Coverage	$4,166	$2,124
County’s Explicit Cost of Coverage	$2,280	$2,280
County’s Implicit Cost of Coverage	$2,758	$1,687

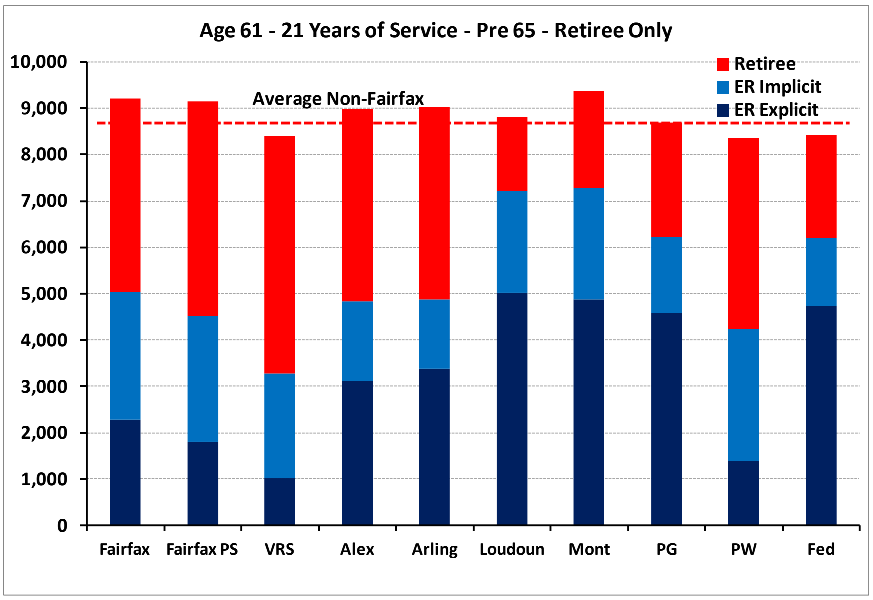
The following is a description of the values shown for the Fairfax Plans and for each comparator plan.

Total Cost of Coverage	Total annual cost of benefits provided, determined on an actuarial basis for 2011, using the actual average costs for the retirees enrolled in the Fairfax County Government benefit option during the 12-month period ending June 30, 2010, adjusted by Aon Hewitt’s proprietary rate manual to account for changes in benefit provisions from the actual cost experience period to the 2011 calendar year for Fairfax County Government, and for each benefit studied for the comparator group employer.
Retiree Cost of Coverage	Portion of the total cost paid for by retirees through monthly contributions, based on the premium strategy of the employer, and the published premium rates used to determine retiree contributions.
County’s Explicit Cost of Coverage	Portion of the published premium paid by the employer, based on the premium strategy of the employer, and the published premium rates used to determine retiree contributions.
County’s Implicit Cost of Coverage	Portion of total cost that is paid 100% by the employer that is in excess of the published premium rate used to determine retiree contributions.

The County Plan vs. Comparator Plans – Pre-65 (Pre-Medicare) Retiree Coverage

We compared the cost of these current year benefits to the comparator group for a retiree with Retiree Only coverage, using the assumptions noted in Section III. The full results are in Appendix E. However, here are the graphical results for an employee who is age 61 at retirement with 21 years of service.

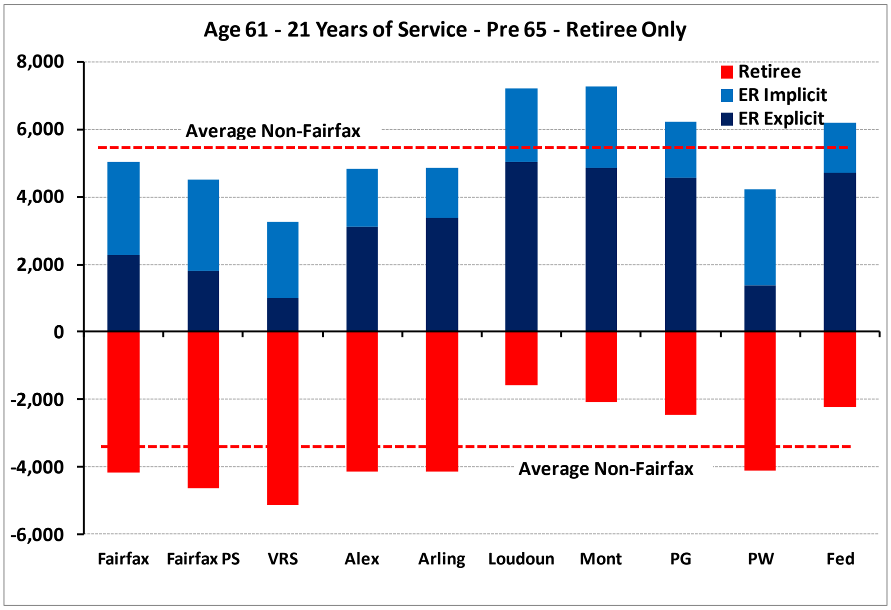
Age 61 with 21 Years of Service



In comparison, Fairfax County's medical benefits for pre-65 retirees are fairly rich providing 100% coverage for the most costly services (inpatient hospital) and low copays and cost sharing for other medical services. For prescription drug coverage, Fairfax County charges retirees copays for drugs that are generally lower than most employers in the group for brand name drugs and on par with these employers for generic drugs. Fairfax County's total cost, for the benefits studied, are about 5% higher than the average for the comparator group. Fairfax does not have the richest benefits in the group, as that distinction rests currently with Montgomery County Government, but it is near the top for rich benefits. It is important to note that many jurisdictions, including Montgomery County Government, are looking at changes in retiree health benefits as they face the budget pressures to reduce costs.

An additional comparison to consider is the portion of the costs for coverage paid by Fairfax County Government. The graph below shows the Explicit and Implicit Subsidy for the County in relation to the subsidies provided by comparator group employers.

Age 61 with 21 Years of Service



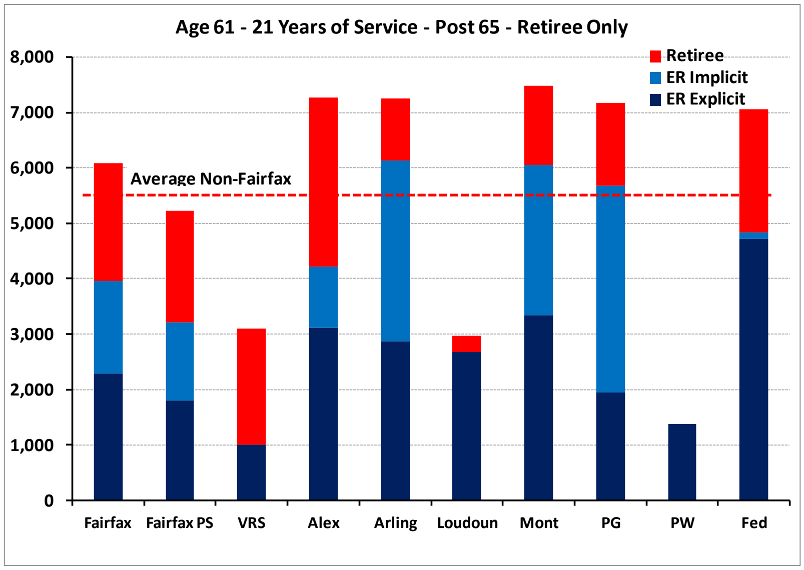
Similar to Fairfax County Government, several of the Virginia employers provide a fixed dollar explicit subsidy to retirees for coverage. The County's explicit subsidy is one of the lower subsidies in the comparator group, with the lowest belonging to the Commonwealth of Virginia (labeled as VRS). However, when the implicit subsidy is considered, in addition to the explicit subsidy, the County's share of the total cost moves it up in the comparator group, to just below average for the group.

Retirees do pay a fairly sizeable portion of the cost for pre-65 retiree health coverage at the County, at about 45% of the total cost. Of the comparator group employers with fixed dollar subsidies, the County's retiree contribution is about 6% less than the average for those employers.

The County Plan vs. Comparator Plans – Post-65 (Medicare) Retiree Coverage

To illustrate the current year comparison of benefit costs for a retiree eligible for Medicare (post-65 retiree), here are the graphical results for an employee who is age 65 at retirement with 21 years of service

Age 65 with 21 Years of Service



There is a lot of variation in benefit design, and therefore total cost, for the post-65 retiree health coverage. As stated previously for medical benefits, an employer's plan pays second after the primary payer, Medicare, makes its payments for services. Fairfax County Government, and we believe only Fairfax County Schools, use a secondary payment method that results in the lowest costs to the plan (that is, retirees pay a portion of the cost of services). This approach is usually referred to as "carveout" coordination. It results in a total benefit from Medicare and the employer's secondary plan that pays the same level of benefit for post-65 retirees as it does for pre-65 retirees and active employees. Other employers use a more standard secondary payment method (Coordination of Benefits) that results in the highest cost to the plan (that is, retirees generally pay little to nothing for the cost of medical services).

For prescription drug benefits, most of the employers in the comparator group, plus the County, use the same prescription drug plan as provided to pre-65 retirees and active employees. On a combined basis, the cost of the Fairfax County Government plan is lower than half of the employers of the group.

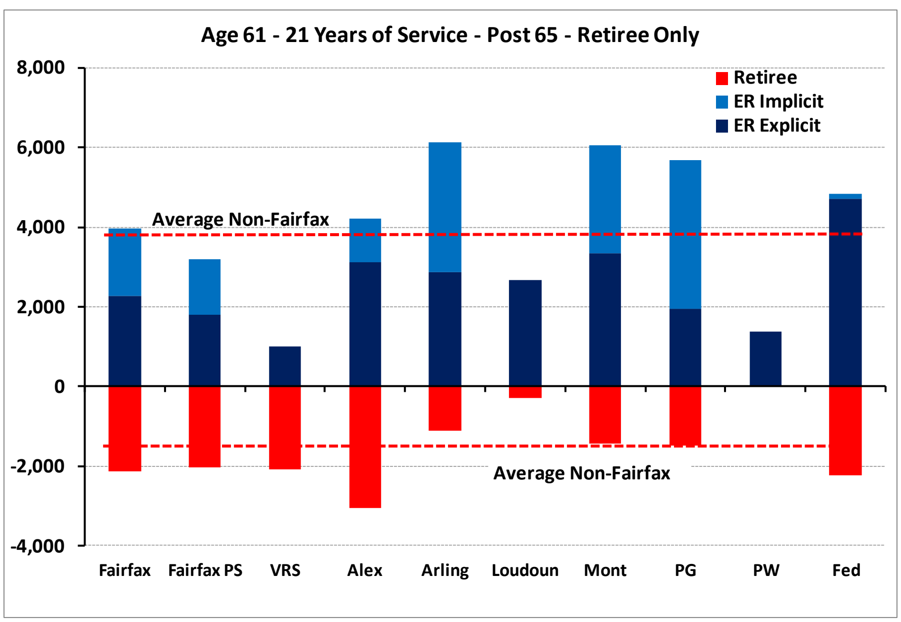
One employer in the comparator group (Loudoun County) has chosen to contract with an insurer to provide a Medicare Advantage plan, an alternative to traditional Medicare that in recent years has resulted in lower costs for coverage. Medicare Advantage plans have received favorable subsidies from the federal government to provide the Medicare benefits, supplemental benefits and lower premiums in an effort to increase market share and to provide a lower cost alternative to Medicare eligible retirees. We expect the cost of the Medicare Advantage plans to increase, or the benefits provided to diminish, dramatically over the next several years as health care reform has lowered the amount of subsidies these plans will receive in the future. Therefore, while the Loudoun costs appear very low, that may not be sustained in the future.

For prescription drugs, two of the comparator group employers, Loudoun County and Commonwealth of Virginia, provide a Medicare Part D drug benefit to their retirees over age 65. These employers, through their contracts with insurers, are receiving subsidies from the federal government to provide a drug benefit to retirees. That subsidy flows through the premium charged to retirees, and reduces the cost of coverage. It is important to note that Fairfax County Government, along with most of the employers (if not all, with the exception of the FEHB) with coverage the same as pre-65 retirees, also receives a subsidy from the federal government to provide prescription drug coverage to Medicare retirees. Fairfax County Government uses this subsidy to enhance the explicit subsidy provided to retirees to purchase health coverage. Other employers use this subsidy to reduce the employer's cost, or for other purposes.

Prince William County is the outlier with regard to post-65 retiree health benefits. They only provide a fixed subsidy to their retirees to purchase Medicare supplemental coverage on the individual market, a market that does provide a good deal of choice in benefits and premium.

The following graph shows the portion of the costs for post-65 coverage paid by Fairfax County Government, and each of the comparator group employers. The graph also shows the Explicit and Implicit Subsidy for the County in relation to the subsidies provided by comparator group employers.

Age 65 with 21 Years of Service

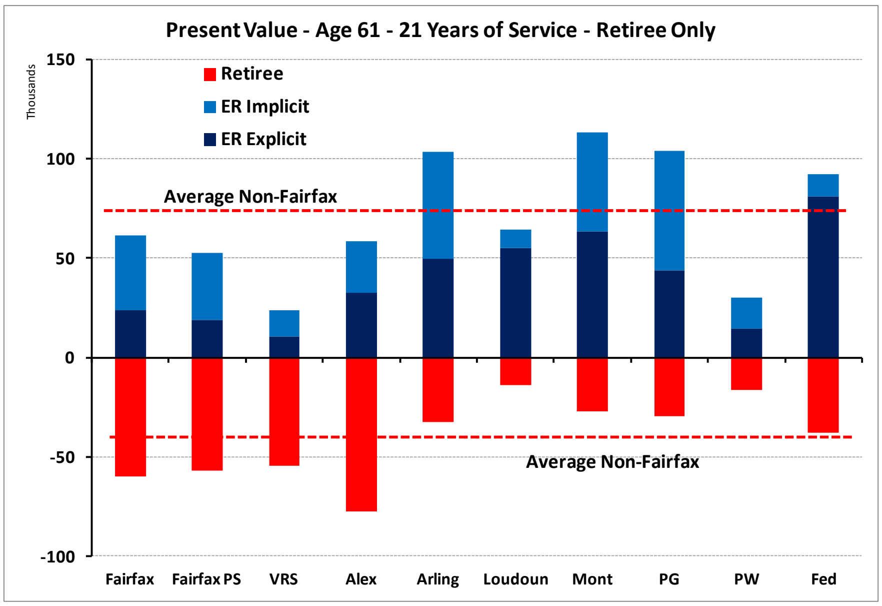


The costs paid by Fairfax County Government for post-65 retiree health coverage are not the highest, and certainly not the lowest. They are just about equal to the average for the other employers in the group.

The County Plan vs. Comparator Plans – Pre-65 and Post-65 Retiree Coverage Combined

Similar to the retirement income Section IV, we compared the Fairfax County Government retiree health care benefits, over a retiree's lifetime, to the comparator group on a present value basis, using the assumptions noted in Section III. The full results are in Appendix E. Our graphical results are for the same hypothetical employee who is age 61 at retirement, with 21 years of service.

Age 61 with 21 Years of Service



Over this retiree's lifetime, the Fairfax retiree will pay more than 50% of the value of health coverage. The Fairfax-provided portion of the value is slightly less than the average for the comparator, recognizing there is significant variation in employer-provided value among the comparators.

Overall

Fairfax County provides average retiree health care benefits when benchmarked to the comparator group. The Benefits Division at the County is conducting a study and market research for its retiree health care benefits, to look for other solutions in the marketplace that provide similar quality of benefits offered on the most financially efficient basis.

We are aware of several design features that have been requested by employee groups, as well as other interested parties, for consideration by the Benefits Division. These features include:

- the ability for former employees to come back to the County for retiree health coverage if it is not selected at the point of retirement,

- the use of Health Savings Accounts (HSAs) for the delivery of retiree health benefits, and
- the use of savings account in a Voluntary Employee Benefit Association (VEBA).

Former Employees Returning for Retiree Health Coverage

With respect to allowing former employees to come back for retiree health coverage, this is not a common practice in retiree health plans, in both the private sector and public sector. Most employers require employees at the point of retirement to elect retiree health coverage, or to forego it. The most compelling reason to have this immediate coverage provision in place is to avoid the potential for anti-selection against the plan. Group health plans operate best when they have a risk pool that spans the need for coverage – from lower need for basic health coverage to higher need for catastrophic health coverage. With a mix of health care needs in a plan, costs can be maintained at a reasonable level with reasonable health trend increases each year. If an employer allows retirees, pre-Medicare retirees in particular, to select coverage when desired, they will enroll at a time when the need for health coverage is high, and/or because they cannot obtain it elsewhere at an affordable price. This could lead to unstable costs in the group health plan. While the actual impact on costs cannot be determined until the event of returning for coverage occurs, we can discuss it at a macro level with regard to the GASB OPEB liability.

Currently, the County pays a fixed (explicit) subsidy for coverage and also pays the difference between the actual costs for pre-Medicare retirees and the premium rate used to charge retirees (implicit subsidy). The premium rate is developed based on a blend of active and retiree cost experience. From an Other Postemployment Benefits (OPEB) liability standpoint, the implicit subsidy represents approximately 70% of the County's Annual Required Contribution (ARC). As former employees needing coverage return to the County with their higher health care costs, the premiums used to charge retirees and actives will be increased to a small extent as the returning individual's costs will be blended with costs of the entire group covered under the plan. By blending in this higher claim experience, it becomes minimized in the rate charged to retirees. However, the actual cost incurred for these returning individuals will be absorbed by the County to a much larger extent in the implicit subsidy, thereby increasing the 70% portion of the ARC.

From an access to coverage standpoint, and the need for coverage by a former employee, as the State exchanges for health coverage come into being in a few years, the need for employer group retiree health coverage becomes less. Former employees needing coverage will be able to purchase coverage from the exchange, and in the process they may qualify for some premium subsidies that might produce a premium which is less than what the County would charge retirees for similar coverage. Therefore, with the potential for more affordable coverage through State exchanges, and with the impact from anti-selection that comes with the option to return for coverage, we recommend that the County not consider an option for former employees to come back to the County for health care coverage.

Health Savings Accounts

Health Savings Accounts (HSAs) are linked to high deductible health plans (HDHPs) and are a tax efficient vehicle for enrollees in those high deductible plans to set aside funds on a tax-advantaged basis to cover out-of-pocket health care expenses. Since the employer cannot control what is paid from the HSA, it cannot direct the use of the HSA for retiree health expenses. There may be little, if any, funds left in the HSA to carry over into retirement to offset health expenses incurred at that time. Therefore, we do not view HSAs as a viable vehicle for prefunding retiree health care expenses while an employee is active. In addition, any HSA amount carried over into retirement cannot be used to purchase coverage for a pre-Medicare retiree or for a spouse of a pre-Medicare retiree, and also cannot be used to pay Medi-gap (Medicare supplement policy) premiums for over age 65 retirees. So, as a prefunding vehicle for retiree health expenses or premiums, HSAs are not an ideal choice. However, as a benefit option for pre-Medicare retirees to purchase, a high deductible health plan with an HSA makes sense. Note, Medicare eligible retirees are not permitted to contribute to HSAs, therefore, the HDHP with HSA does not make sense for this retiree group. The HDHP with HSA option would offer a lower cost alternative to a pre-Medicare retiree who might be looking to take risk on the cost of health services, in exchange for a lower premium each month, and for the right to put some funds into the HSA on a tax free basis to be used tax free to pay health expenses. The County might consider seeding some of the funding of the HSA provided the premium for coverage (including the seed money) does not exceed the premiums for plans in place prior to introduction of the HDHP.

Savings Account in a Voluntary Employee Benefit Association (VEBA)

Currently, the County contributes its OPEB ARC to a trust fund in order to pay its share of current retiree health benefits and to prefund the payment of benefits in the future to current and future retirees. Once in the trust, these funds are locked in and earmarked for the payment of retiree health expenses. Given that a trust fund currently exists for the payment of benefits, we do not see a need for the County to establish another trust fund (VEBA) to provide benefits to retirees. If the County were to redesign its program into a pure financial commitment, defined contribution approach, with account balances made available to retirees for the purchase of health care coverage, then a VEBA may be a viable solution. The VEBA would allow employees to contribute on an after-tax basis, and the County to also contribute, to individual accounts to be used in the future at retirement for the purchase of coverage. The contributions would grow with earnings on a tax-free basis and would be disbursed tax-free for the payment of qualified health expenses and/or premiums. We believe the County would need to first undertake an evaluation of its retiree health care delivery system, and if it chooses to convert its system to a pure defined contribution approach for future retirees, then the VEBA would be a vehicle to explore as part of this defined contribution solution.

The retiree health care market is expected to change dramatically over the next several years as health care reform initiatives take root. We anticipate that most employers, including employers in the comparator group, will be undertaking similar studies of their program and potentially making changes in the near future. Therefore, the designs benchmarked in this report are a snapshot at the time the study was conducted in 2011. We are aware that the County is revisiting its retiree health care strategy in light of the rapidly changing landscape to make its plans more usable and cost effective for both participants and the County. We encourage the County to continue to evaluate alternatives, including additional programs for pre- Medicare and Medicare retirees, alternatives for prescription drug coverage, and more effective funding and saving vehicles participants can use to cover the cost of their healthcare.

SECTION VI

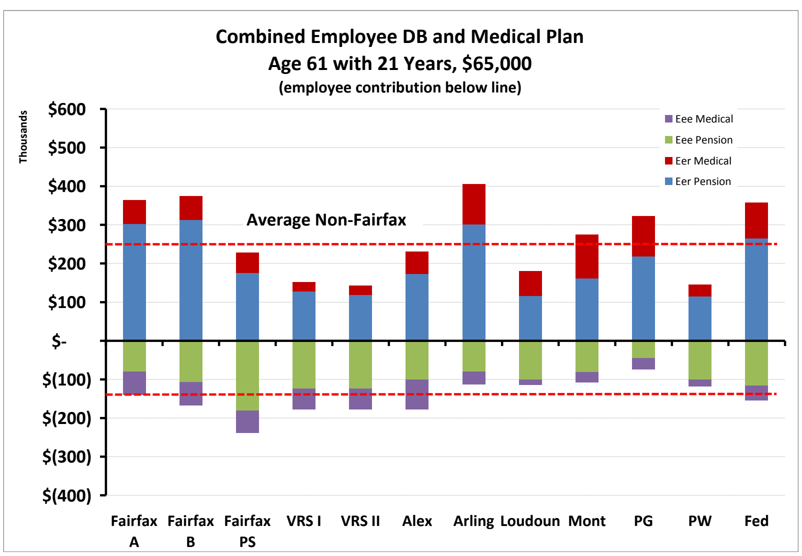
TOTAL RETIREMENT BENCHMARKING

To compare the benefits provided to Fairfax County retirees we combine the postretirement income benefit with the retiree health benefit. We continue the use of a present value approach as this provides a way of combining disparate benefit structures. We present results purely on an employer paid/employee paid basis as the total benefit for health is always the health care the retiree needs. The difference in value of the total retirement benefit is well reflected in Section III where we review the Retirement Income Plans.

As noted in the earlier sections, Fairfax provides strong retirement income benefits compared to the comparator group. The County provides fairly average retiree health benefits.

The baseline individual examples for the Fairfax Employees' Plan are age 61, 21 years of service, $65,000 salary for non-school employees and age 63, 18 years of service, $35,000 for school employees. These are the average of employees retiring over the past three or four years from the Fairfax County retirement plans. Here are the relative value graphs for those two age/service/salary combinations.

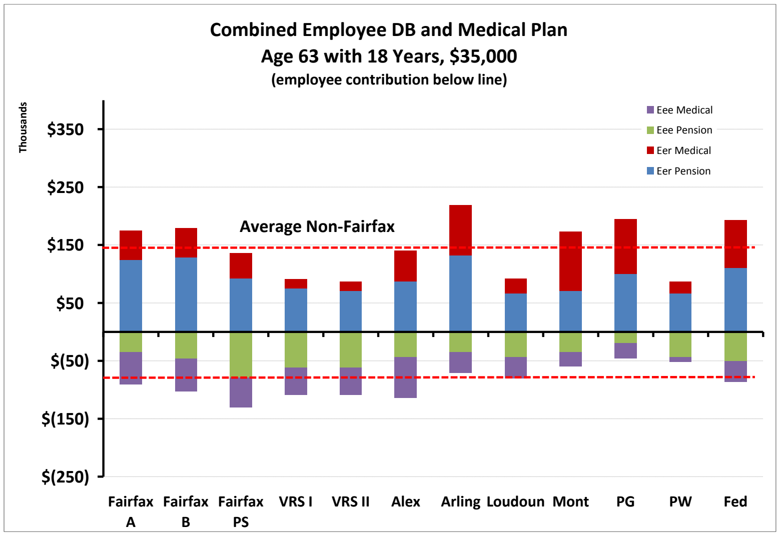
Age 61 with 21 Years of Service / Salary $65,000



For the non-school employee example, the Fairfax provided benefit trails only the Arlington package and is just about as generous as the federal program. It is about 50% over the average of the other jurisdictions, including the Fairfax Public Schools Plan.

For the school employee example:

Age 63 with 18 Years of Service / Salary $35,000



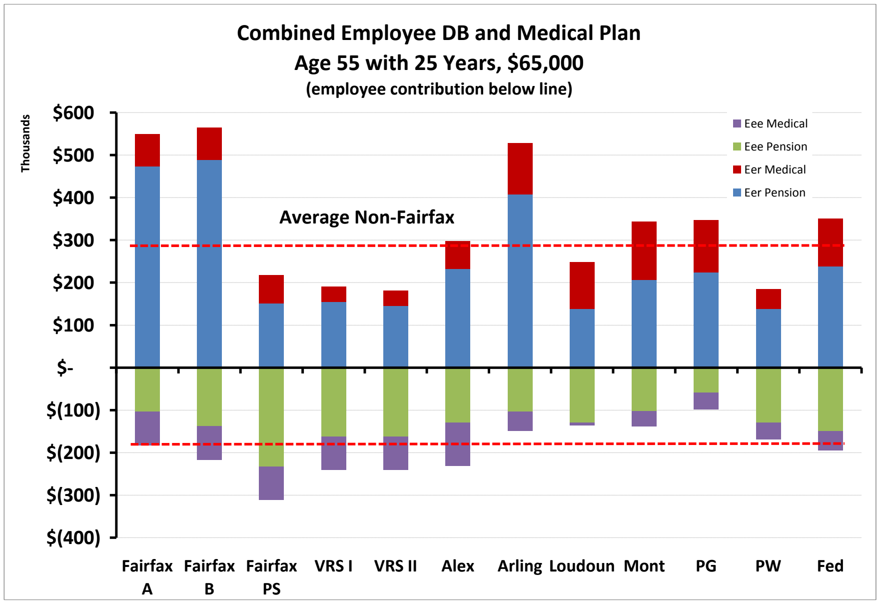
The Fairfax Employees' Plans trail the Arlington, Prince George's and Federal packages and are close to the Montgomery package. However the plan still exceeds the average of the other plans by about 23%.

In each case, the employee contribution to these benefits is about on par with other jurisdictions, though slightly higher for school employees.

Total Retirement for Other Sample Employees

With the supplemental income provided to early retirees in the Fairfax plans, the value of the benefit to employees who retire early is much superior to the comparator group.

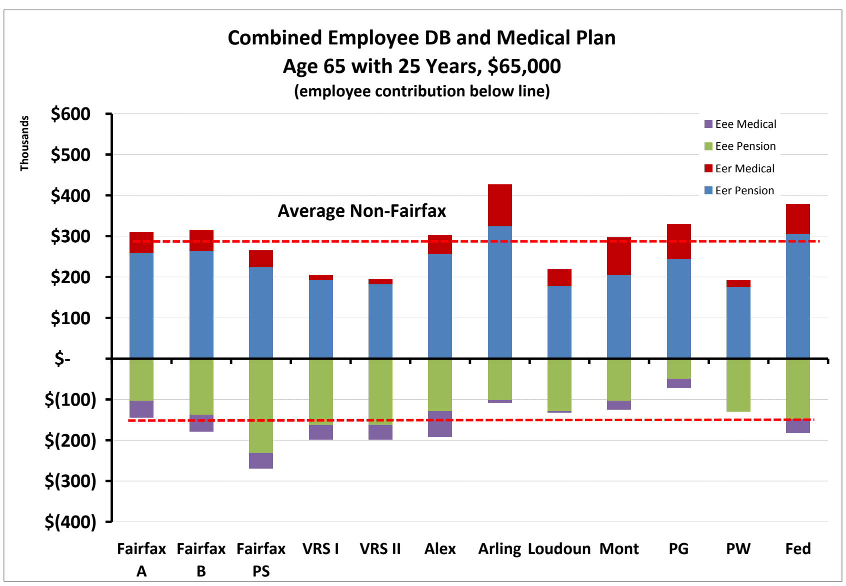
Age 55 with 25 Years of Service / Salary $65,000



The Fairfax Employees' Plans value for retirement income and retiree health care benefits is better than all competitors with the benefits provided by Fairfax County being approximately double the average benefit.

At ages where the supplement plays a lesser role, such as at age 65 retirement, the value of Fairfax provided coverage is much closer to the average for the comparator group.

Age 65 with 25 Years of Service / Salary $65,000



There are a number of plans that exceed the employer value of the Fairfax Plan – Arlington, Prince George's, and the Federal Plan. The average benefit provided by Fairfax County for retirement income and retiree health care is about 6-8% higher than the comparator average and the employee contributions are very near the average.

The results for the school employee example, $35,000 in pay, are shown in Appendix F and basically follow the same pattern.

SECTION VII

BENCHMARKING RESULTS:
POLICE OFFICERS—RETIREMENT PLANS

This section reviews the approach and results of our competitive benchmarking of the Fairfax County retirement plans for police officers. Each of the comparators has chosen to maintain plans similar to those sponsored by Fairfax County. The comparators are (retirement income plan in parentheses):

- Commonwealth of Virginia (VRS SPORS [pre and post 7/1/10])
- City of Alexandria (Firefighters and Police Officer's)
- Arlington County (Employees' Retirement System)
- Loudoun County (VRS plus Hazardous Duty Supplement)
- Montgomery County (Mandatory Integrated Sworn Police Personnel)
- Prince George's County (Police Pension Plan)
- Prince William County (VRS, Hazardous Duty Supplement, and County Supplemental Plan)
- Federal (FERS and TSP)

Comparing Benefits

A summary of each plan benefit as we valued it is included in Appendix G. There were some special issues in comparing retirement income benefits. We handled these as follows:

- Several of the plans are defined contribution or provide benefits that mimic a defined contribution plan.

- Not all police officers are covered by the Social Security system. All of the systems evaluated with the exception of Fairfax County and Prince George's County participate in the Social Security System. We compensated for this by treating Social Security benefits provided by other counties as an additional pension plan. Since there is not a clear link between contributions that an employer or employee make to the Social Security system and the benefits that the employee receives, we have based the values shown on the estimated benefit payable by the Social Security system. Since employers and employees pay equally into the system, we treated 50% of the total benefit value as an employer-provided benefits and the other 50% as paid for by the employee.

  Social Security itself can be evaluated in differing ways. Benefits under the system are based on the average covered wages over a 35 year period. Typically, police officers have a significantly shorter work history in their primary job. We used the benefit that would be earned only with the salary earned over the period of employment with Fairfax (26 years) so the average salary is somewhat lower than what we would assume for a career employee with similar earnings in a non-police job.

Many police officers continue working, most often in Social Security covered employment after their police careers are over. Some also have Social Security covered employment prior to their police careers. Social Security benefits are front loaded, providing higher benefits for low wage earners and proportionately lower benefits for higher wage earners. We did not account for any Social Security benefits earned by Fairfax employees after they worked for the County and have not adjusted the benefits paid under the other systems to reflect Social Security-covered employment before or after the modeled 26-year period. In that way we have been relatively conservative in the evaluation of Social Security benefit paid.

Finally, police officers generally retire at younger ages so any employee retiring now will likely be born in 1960 or later and have age 67 as their Social Security normal retirement age. Since age 62 is the most common age to begin receipt of Social Security benefits, we assumed the benefit would be paid at that age. Benefits payable before age 67 are reduced so that benefits payable between 62 and 67 would not have a significantly different value.

- We used a salary of $90,000 for Police Officers calculations. This is significantly higher than that used for the General Employee calculation, $65,000. This is quite common in governmental groups that have public safety plans. The general population covers a wide range of job positions with considerable variation in salary, while the police plans tend to have more uniform and more highly paid participants.

- In general police officers retire at significantly earlier ages than their general employee counterparts. Benefit levels and designed retirement eligibility reflect this, as does the reference employee whose benefit is illustrated below.

- Most of the programs whose members are also covered by Social Security provide temporary payments between retirement age and Social Security eligibility (either earliest age or full age). While such “bridging” payments are uncommon among the comparator group for general employees, they are the norm for plans covering police officers due to their younger retirement ages. This temporary payment is referred to under the VRS system as the hazardous duty supplement when applied to police officers working as employees of participating jurisdictions. Note that the separate SPORS plan is only available to State employees.

- The plans covering police officers have differing averaging periods for the salary portion of the benefit and cost-of-living provisions vary. In particular the Prince George's County plan has a different cost-of-living provision, based on an increasing fixed dollar amount rather than a percentage increase.

To provide apples-to-apples comparisons, we continue to use a lump-sum present value approach. In basic terms, a present value converts a number of payments in the future to a value today. That amount of money, invested at a rate of return called the discount rate, would provide all those payments in the future with nothing left at the end.

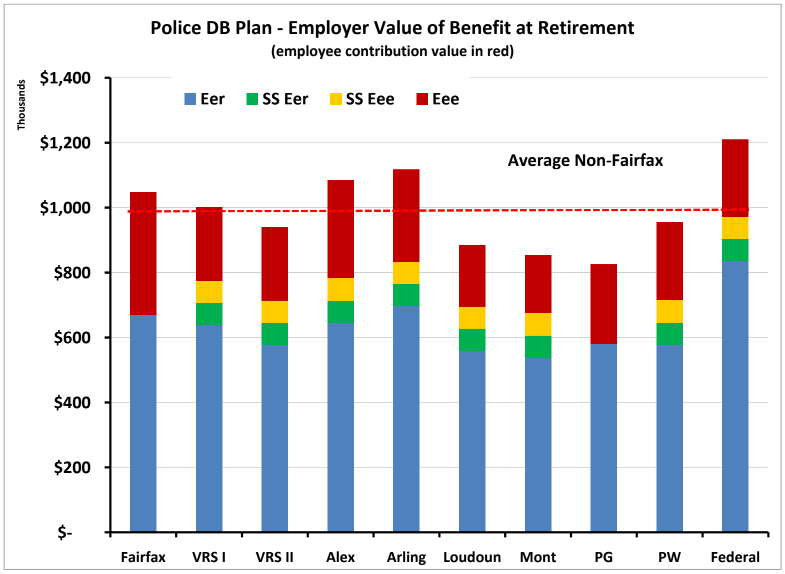
We also continue to use the current plan benefit in our comparisons. Over time the benefits at Fairfax County have changed, and there have been changes at most comparators. The impact of those changes (in benefit levels and contribution rates, for example) is not captured in these values. The results, while based on employees retiring in the current year, should be thought of as the value of the current plan structure and the relative values as a benefit payable to an employee who will retire in the future having worked under the current plan the entire time.

The approach taken in this section is the same as described in Section IV – the General Employees' Plan. The only addition is the row showing the value of Social Security for those comparators who provide Social Security to their police officers.

The Fairfax County Retirement Plan

We compared Fairfax County benefits for police officers to the comparator group on a present value basis, using the assumptions noted in Section III and a salary of $90,000. Here are the graphical results for an employee who is age 51 with 26 years of service and a salary of $90,000.

Age 51 with 26 Years of Service / Salary $90,000

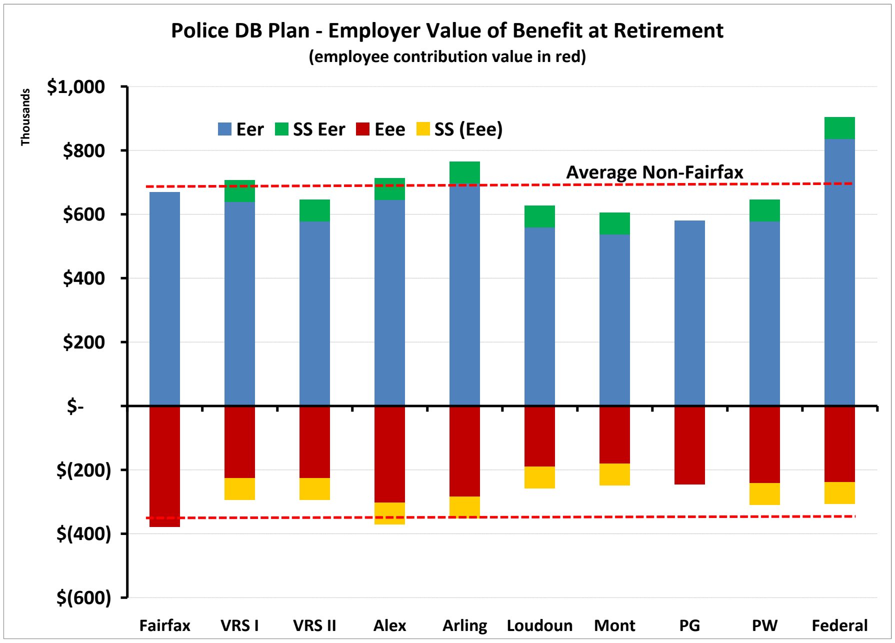


As can be seen, the Fairfax County benefits are competitive with a total value of $1,050,000, essentially equivalent to VRS/SPORS I and lower than the Federal Plans, valued at $1,210,000. The Fairfax County plan is within approximately $50,000 or 5% of the average of the comparator group. Note that this is most similar to the comparison for Fairfax Employees' Plan at age 65 when the Social Security bridging payments were at their lowest value. This is reflective of such bridging payments being common among plans covering police officers.

Note that the value of Social Security benefits as shown are relatively small in comparison to employer-sponsored plans. This is in part due to the deferred nature of these benefits. The reference employee retires at age 51 but may not begin to collect Social Security payments until age 62 at the earliest. For example, the basic VRS II benefit will pay approximately $40,000 per year, without regard to the hazardous duty supplement, while the estimated Social Security benefit is approximately $25,000 per year beginning at age 62. The employer-funded Social Security payments are $12,500, or about 31% of the basic benefit. Due to the hazardous duty supplement in VRS and the eleven-year delay in Social Security, the current value of the Social Security payment is significantly less than 31% of the value of the total benefit.

When we focus on the values broken into the Fairfax County provided piece and the employee provided piece, the results are:

Age 51 with 26 Years of Service / Salary $90,000



Arlington County and the Federal Plans have the highest employer-provided benefits at $765,000 and $905,000, respectively. Fairfax County, with value of $670,000 is 3% below the $690,000 average. Note that the benefit values are much more consistent for police officers than for general employees.

The highest value comparator is the Federal Government's Law Enforcement Officers and the additional value is largely because in addition to a competitive defined benefit pension plan, those employees are eligible for a rich matching contribution in the Federal Thrift Savings Plan (TSP). The TSP represents $190,000 in employer-paid value to the Federal retiree so the defined benefit portion of the benefit package by itself is slightly below average.

The lowest value comparator is the Prince George's County plan and the lower value is largely due to that plan's fixed dollar cost of living adjustment rather than the more common annual percentage increase. The basic annual benefit is very comparable (about 2% larger) to that offered by Fairfax County. However, the Fairfax County plan cost of living adjustment has a value which is more than $200,000 greater than that offered by the Prince George's County plan.

Aside from those two outliers, all plans have a value within 12% of the average.

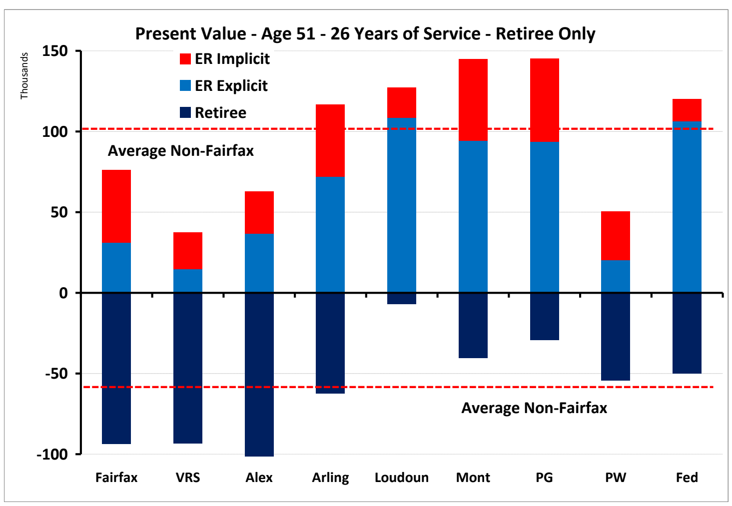
Other Age and Salary Combinations

Police officers tend to retire in a relatively narrow band of age and service combinations. The retirement assumption used in Fairfax County's actuarial valuation of the Police Officers Retirement System is completely based on service. The percentage varies after 25 years of service, but approximately two-thirds of officers are assumed to retire during either their 25th or 26th year and less than 1% are assumed to remain past their 30th year. Also, as mentioned elsewhere, most of the plans covering police officers offer Social Security bridging payments. For these reasons we have not prepared illustrations showing other combinations of age and service.

Retiree Health Care Plans

We have followed the methods laid out in Section V for benchmarking retiree health care plans for police officers. In all cases but one, police officers receive the same benefits and pay the same contributions as retirees who were former general employees. As indicated in Section V, Prince George's County charges retired police officers a lower rate than retired general employees for pharmacy benefits.

Age 51 with 26 Years of Service

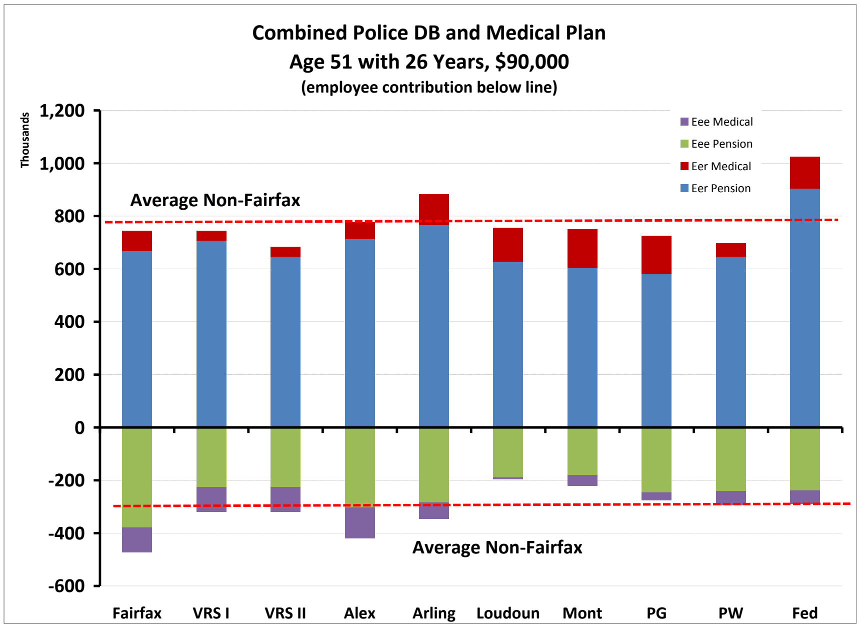


The value of retiree health care for police retirees differs more in employer contributions than the underlying benefit structure itself. For reasons more fully described in Section V, the benefits provided by the Commonwealth of Virginia, Loudoun County and Prince William County are not directly comparable in total due to their structure, although they are definitely comparable in employer cost.

Aside from those three, the remaining seven comparators have total value of benefits all within 10% of the $175,000 average. In particular, Fairfax County's plan and the Federal plan have a total plan value within 0.2% of each other but the results clearly show a difference in contribution strategy. While the overall benefit available to Fairfax County police retirees is very similar to the comparator group, the $76,000 portion of that cost that Fairfax County pays is approximately 81% of the $93,500 that the comparator group pays.

Overall

Age 51 with 26 Years of Service / Salary $90,000



When both retirement income and retiree health benefits for police officers are combined, the results are in a relatively narrow band across the comparator group. The retirement income portion of the analysis is a dominant feature and the combined results show a similar result to the retirement income plans alone.

The Federal plans continue to have the highest value, again due to the robust Thrift Savings defined contribution plan that supplements the Federal Employees Retirement System. Fairfax County's police retirees have an employer-provided benefit value of $745,000 that is slightly below the $780,000 average of the comparator group.

SECTION VIII
BENCHMARKING RESULTS:
UNIFORMED EMPLOYEES—RETIREMENT PLANS

This section reviews the approach and results of our competitive benchmarking of the Fairfax County retirement plan for uniformed employees (Plan D). Each of the comparators has chosen to maintain plans similar to those sponsored by Fairfax County. The comparators are (retirement income plan in parentheses):

- Commonwealth of Virginia – (VRS SPORS [pre and post 7/1/10])
- City of Alexandria (Firefighters and Police Officer's)
- Arlington County (Employees' Retirement System)
- Loudoun County (VRS plus Hazardous Duty Supplement)
- Montgomery County (Mandatory Integrated Sworn Fire Personnel)
- Prince George's County (Fire Service Pension Plan)
- Prince William County (VRS, Hazardous Duty Supplement, and County Supplemental Plan)
- Federal (FERS and TSP)

Comparing Benefits

A summary of each plan benefit as we valued it is included in Appendix H. There were some special issues in comparing retirement income benefits. We handled these as follows:

- Many of the plans covering uniformed employees are the same as plans covering police officers. Other than Fairfax County, only Montgomery County and Prince George's County in the comparator group differentiate between police and uniformed personnel.

- We have not attempted to account for every class of employee and every job category. Different comparator jurisdictions may treat subsections of the members of Fairfax County's uniformed population differently than presented here. These results should be thought of as primarily applicable to the Fire and Rescue Department which represents the largest group covered by the Fairfax County Uniformed Retirement System.

- Several of the plans are defined contribution or provide benefits that mimic a defined contribution plan.

- In general uniformed employees retire at significantly earlier ages than their general employee counterparts. Benefit levels and designed retirement eligibility reflect this, as does the reference employee whose benefit is illustrated below.

- We used a salary of $90,000 for the Uniformed calculations. This salary was chosen to be consistent with the Police Officers calculation as we were told that the pay structures were reasonably consistent. We note, however, that the actual Uniformed salary we calculated for recent retirees was about $7,000 higher than the corresponding Police Officers salaries. While our results would not change (the benefits would all be proportional across all plans), this might be an area for the County to review.

- Most of the programs provide temporary payments between retirement age and Social Security eligibility (either earliest age or full age). While such "bridging" payments are uncommon among the comparator group for general employees, they are the norm for plans covering uniformed employees due to their younger retirement ages.

To provide apples-to-apples comparisons, we continue to use a lump-sum present value approach. In basic terms, a present value converts a number of payments in the future to a value today. That amount of money, invested at a rate of return called the discount rate, would provide all those payments in the future with nothing left at the end.

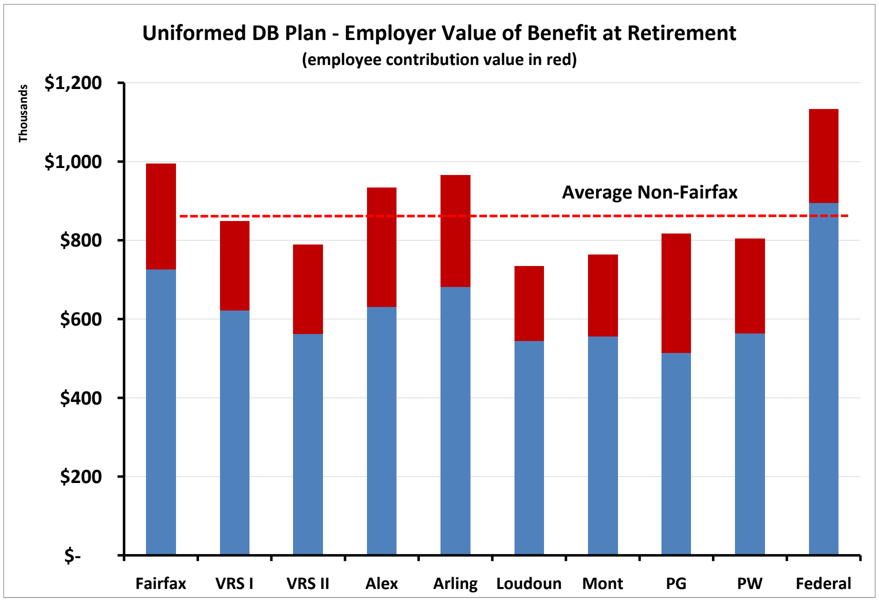
We also continue to use the current plan benefit in our comparisons. Over time the benefits at Fairfax County have changed, and there have been changes at most comparators. The impact of those changes (in benefit levels and contribution rates, for example) is not captured in these values. The results, while based on employees retiring in the current year, should be thought of as the value of the current plan structure and the relative values as a benefit payable to an employee who will retire in the future having worked under the current plan the entire time.

The approach taken in this section is the same as described in Section IV – the Fairfax Employees' Plan.

The Fairfax County Retirement Plan

We compared Fairfax County benefits for uniformed employees to the comparator group on a present value basis, using the assumptions noted in Section III and a salary of $90,000. Here are the graphical results for an employee who is age 52 with 26 years of service and a salary of $90,000.

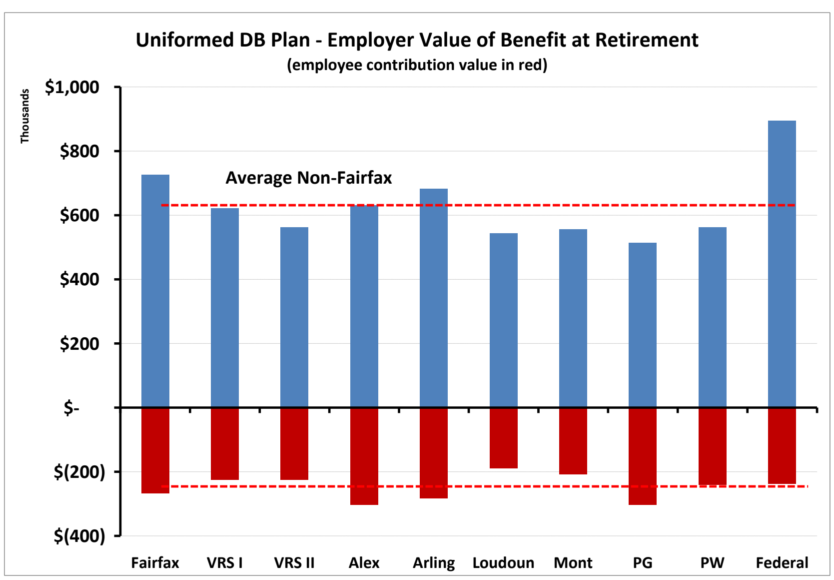
Age 52 with 26 Years of Service / Salary $90,000



As can be seen, the Fairfax County benefits are again strong with a total value of $995,000, only lower than the Federal Plans, valued at $1,135,000. The Fairfax County plan exceeds the $865,000 average of the comparator group by 15%. Note that this percentage, while slightly higher than for the police officers, is still similar to the comparison for General Employees at age 65 when the Social Security bridging payments were at their lowest value.

When we focus on the values broken into the Fairfax County provided piece and the employee provided piece, the results are:

Age 52 with 26 Years of Service / Salary $90,000



The Federal Plans have the highest employer-provided benefits at $895,000. Fairfax County, with value of $725,000 is 15% above the $620,000 average and represents the highest value benefits aside from the Federal Plans. Note that while the benefit values are much more consistent for uniformed employees than for general employees, they are not quite as consistent as for police officers. Also note, when comparing to the police officers analysis in the previous section, all of the uniformed employees participate in Social Security so we have removed that as a variable in the analysis.

The highest value comparator remains the Federal Government's Law Enforcement Officers, again due to the matching contribution in the Federal Thrift Savings Plan (TSP).

The lowest value comparator is the Prince William County plan. While that plan is similar to VRS and Loudoun County, the additional supplement provided is offset by larger employee contributions. The Prince George's County plan continues to show a low value due to the lack of a percentage-based cost of living adjustment.

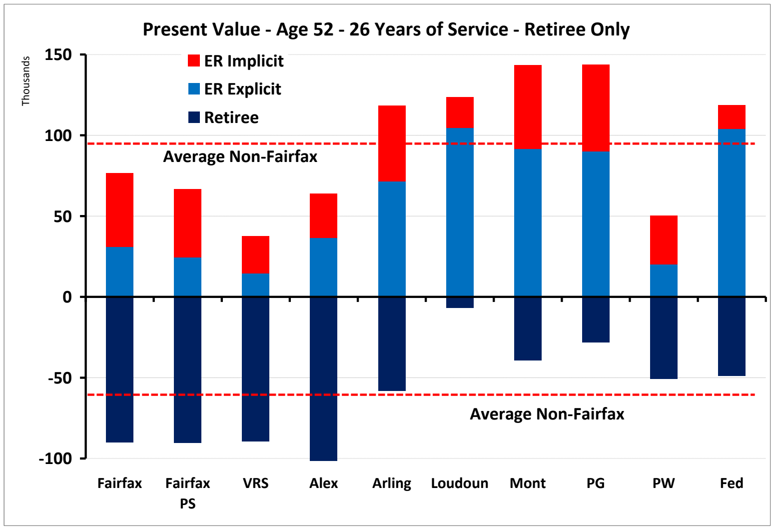
Other Age and Salary Combinations

Uniformed employees tend to retire in a relatively narrow band of age and service combinations. The retirement assumption used in Fairfax County's actuarial valuation of the Uniformed Retirement System is completely based on service. The percentage varies after 24 years of service, but approximately 58% of uniformed employees are assumed to retire during by the end of their 25th year and less than 5% are assumed to remain past their 30th year. Also, as mentioned elsewhere, most of the plans covering uniformed personnel offer Social Security bridging payments. For these reasons we have not prepared illustrations showing other combinations of age and service.

Retiree Health Care Plans

We have followed the methods laid out in Section V for benchmarking retiree health care plans for uniformed employees. In all cases but one, uniformed employees receive the same benefits and pay the same contributions as retirees who were former general employees. As indicated in Section V, Prince George's County charges retired uniformed employees a lower rate than retired general employees for pharmacy benefits.

Age 52 with 26 Years of Service

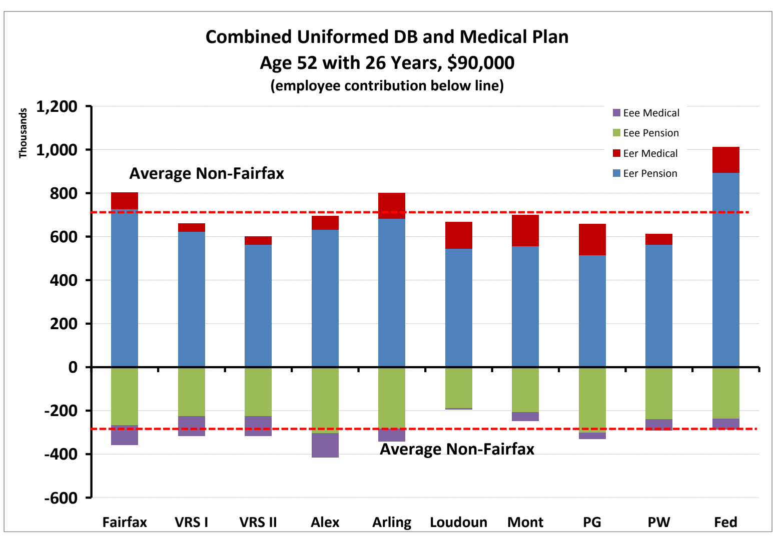


The value of retiree health care for uniformed retirees is very close to the value presented in the previous section for police retirees. In each case the underlying plan and contribution structure is identical. Values are slightly lower in total due to the reference uniformed retiree being one year older than the reference police retiree.

Aside from those Commonwealth of Virginia, Loudoun and Prince William outliers, the remaining comparators have total value of benefits all within 10% of the $170,000 average. Contrasting Fairfax County with the Federal plan again gives a good example of the differing contribution policies. The Fairfax county retiree contribution is approximately 82% of the average for the comparator group.

Overall

Age 52 with 26 Years of Service / Salary $90,000



When both retirement income and retiree health benefits for uniformed employees are combined, similar to the police officers, the results are in a relatively narrow band across the comparator group. The retirement income portion of the analysis is still the dominant feature and the combined results show a similar result to the retirement income plans alone.

The Federal plans continue to have the highest value, again due to the robust Thrift Savings defined contribution plan that supplements the Federal Employees Retirement System. Fairfax County's uniformed retirees come in at the second-highest employer-provided benefit value of $805,000 that is about 15% higher than the $700,000 average of the comparator group.

SECTION IX
INCOME NEEDS AT RETIREMENT

When an employee retires, pay stops and the employee must begin using the financial resources accumulated during active work. These resources include pension plans, defined contribution accounts such as 401(k), 457, 403(b) or IRAs; Social Security; and personal savings including inheritances.

A person's financial needs decrease at retirement. Broadly speaking, need here is defined as the amount of income a retiree needs to maintain his or her preretirement standard of living after retirement. Several of the factors that might affect a change in financial needs at retirement include:

- Work related expenses are reduced
- Taxes, particularly payroll taxes for FICA/FUTA, are not paid from retirement income
- Taxes paid from a lower income are less and there are post-65 added deductions
- The cost of raising a family should diminish
- Savings plans are completed (or abandoned)
- Medical costs may change – over 65 the employee will be covered by Medicare
- There may be some added costs due to travel in retirement, etc.

Obviously, the amount of income a person needs is going to vary by individual. However, we can get a target income from the analysis of a large group of individuals. Over the past 25 years Aon Hewitt has produced an analysis of postretirement income needs. The latest iteration of this is the 2008 Replacement Ratio Study, a copy of which is in Appendix I.

The underlying data source for this Aon Hewitt report is the U.S. Department of Labor's Bureau of Labor Statistics' Consumer Expenditure Survey (CES). This is essentially the same database that is used to construct the Consumer Price Index and provides a broad look at income needs.

Note that we do not feel that this analysis is directly applicable to the police and uniformed County employees. A separate analysis for those types of employees was not performed in the broader Aon Hewitt Replacement Ratio Study and it is beyond the scope of this engagement to identify the separate needs of that population. Examples of those separate needs are:

- Different tax situation, particularly with regard to payroll taxes
- Different family situations
- Broadly younger initial retirement ages
- Significantly higher likelihood of multiple careers

The “Replacement Ratio” is the percentage of an employee’s salary that is needed after retirement. Thus, if an employee has a needed replacement ratio of 85%, the employee will need 85% of his pre-retirement income after he retires. For what is called the “Base Case” in the Aon Hewitt report, the following are the needed replacement income levels at age 65.

Income Before Retirement	From Social Security	Private and Employer Plan	Replacement Needed
$30,000	59%	31%	90%
$40,000	54%	31%	85%
$50,000	51%	30%	81%
$60,000	46%	32%	78%
$70,000	42%	35%	77%
$80,000	39%	38%	77%
$90,000	36%	42%	78%
$150,000	23%	61%	84%

These results are for a married individual as a sole wage earner. However, other family situations required only minor adjustments to the replacement ratios so the single wage earner table is used for analysis. Further adjustments can be made to these results, the primary of which are for savings rates and medical costs.

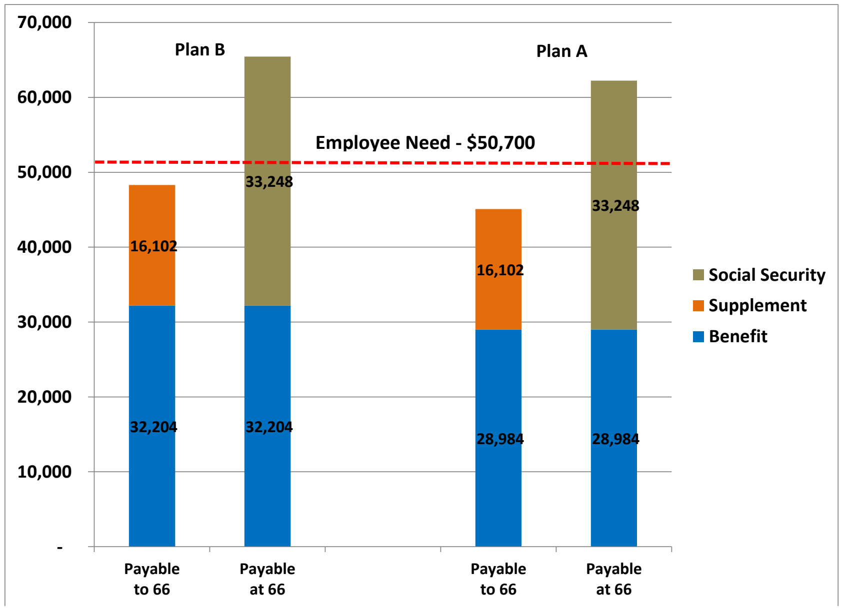
Medical benefits – The County provides retiree health care medical benefits, though the County contribution is capped. Over time there could be a need for employees to pay a larger percentage of their retiree health premium (though for a pre-65 retiree there would be a reduced cost at age 65.)

For this analysis we elected to use the Aon Hewitt Base Case results.

How the Fairfax County Employees’ Plan Meets Employee Need

We looked at a 25 year employee who retires at ages 55, 57, 60, 62, and 65. The Fairfax Employees’ Plan provides for a supplemental benefit for early retirees equal to 1% of pay (up to Social Security Covered Compensation) times service. This is paid until the employee’s Social Security Normal Retirement Age (SSNRA). SSNRA is age 66 for those born in 1943 through 1954 and age 67 for those born in 1960 or later; a phase-in exists for years of birth between 1954 and 1960. We assumed that the supplemental benefits would be paid to age 66.
Based on the above table, an employee who earns $65,000 per year would have an income need of approximately 78% of that salary, or $50,700. Similarly, an employee who earns $35,000 would have an income need of approximately 88% of that salary, or $30,800. Let’s see how the Fairfax plans meet that need.

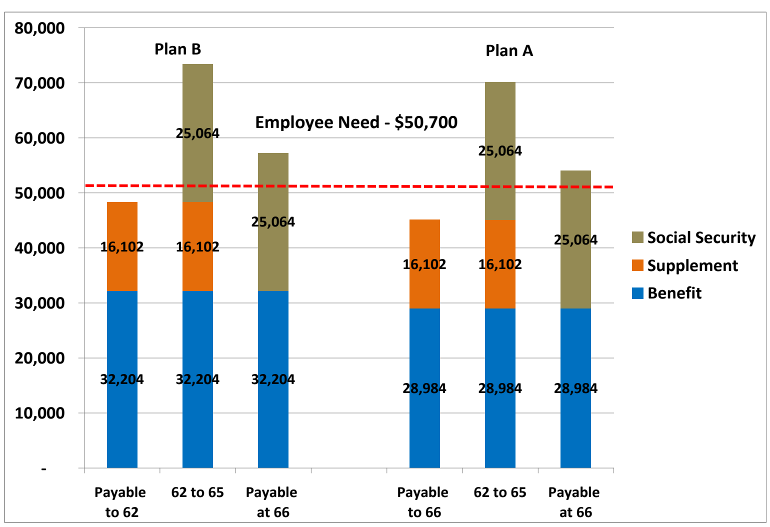
For the $65,000 employee with 25 years of service:



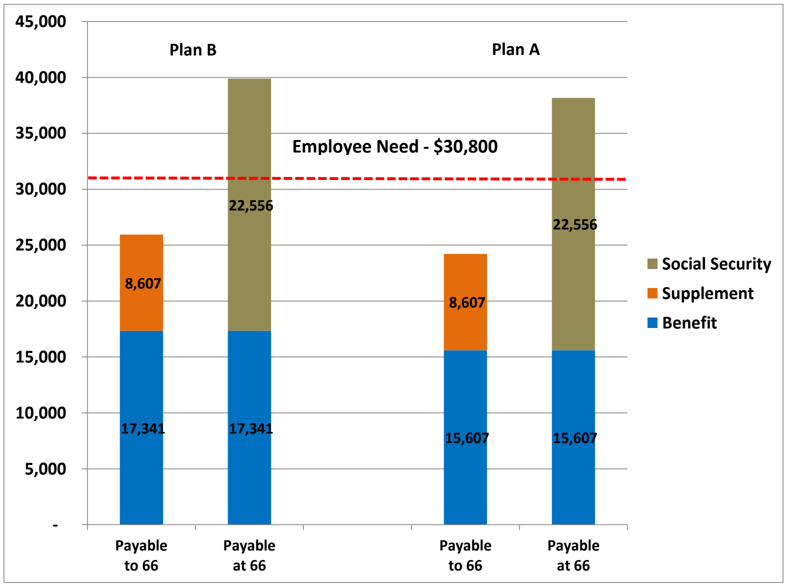
The Plans provide a substantial, but not a full portion, of the need prior to age 66, but provide benefits well in excess of need once Social Security Normal Retirement Age is met and Social Security benefits begin.

It should be noted that this is true for any retirement age prior to age 66 as long as the employee has 25 years of service. The Social Security benefit will be slightly higher as the retirement date approaches age 66, but the general pattern will hold.

The employee could take Social Security benefits at age 62 to cover some of the shortfall prior to 66 though that Social Security benefit will be lower for the employee's lifetime. This option is illustrated as follows, and shows that the benefits are still in excess of need once Social Security begins:



The story is similar for the employee who earns a $35,000 salary. The benefit structure for a 25 year employee, earning $35,000, and retiring prior to age 66 is illustrated as follows:



In each case the benefit is less than need prior to 66 and is greater after Social Security begins. It should be noted that the value of the Fairfax benefit is in excess of the retirement need of the employee <u>on a present value basis</u>. This result is sensitive to the age selected – for this example we use age 57.

For a $65,000 employee, the lifetime need of $50,700 annually is worth $739,000 based on a 7.5% discount rate and a 3% inflation rate. The value of the income benefits, including Fairfax Plans is:

At age 57, 25 YOS, $65,000 salary	Plan B	Plan A
Present Value of the Social Security benefit	$188,000	$188,000
Present Value of the Supplement	$116,000	$116,000
Present Value of the Basic Benefit	$469,000	$422,000
Total Present Value	$773,000	$726,000
% of lifetime need provided	104.6%	98.2%

Thus Plan B meets and exceeds the need; Plan A provides 98% of the need. Note that these numbers differ from our comparison chart because inflation is valued in each piece.

At age 62 the lifetime need has a present value of $659,000. The Plans provide:

At age 62, 25 YOS, $65,000 salary	Plan B	Plan A
Present Value of the Social Security benefit	$279,000	$279,000
Present Value of the Supplement	$57,000	$57,000
Present Value of the Basic Benefit	$419,000	$377,000
Total Present Value	$755,000	$713,000
% of lifetime need provided	114.6%	108.2%

There may be some question of income timing but the Fairfax County Plans provide a benefit that fully meets the employee income need if the employee has 25 years of service or more.

SECTION X

DEFINED BENEFIT AND DEFINED CONTRIBUTION PLANS

The November, 2010 statement of work for the post-retirement benefits review for Fairfax County included the requirement that we discuss among other potential changes to pension programs whether the County should consider changing the current defined benefit (DB) plan structure for new hires to either:

- A defined contribution (DC) structure, or
- A hybrid DB/DC structure.

As we discussed in some depth in Section III of this report, we do not believe that replacing the defined benefit plan entirely with a defined contribution plan only, even for new hires, is a viable option. The County might consider at some point making changes to the defined benefit plan, however, freeing up resources to make the County's current defined contribution plan more attractive to employees.

The County currently maintains a defined contribution plan (the 457(b) plan) which allows employees to save for their retirement on a tax-deferred basis. All contributions to that plan are made by the employees out of their current income.

We discuss this option in more depth in Section XIII of this report, Options for Consideration. It is useful here, however, to provide some background on some of the factors that would influence the County's consideration of such an option.

The Private Sector Contrasted with the Public Sector

While defined benefit plans remain largely the norm for state and local government employees not only in the Commonwealth of Virginia but throughout the country that is not the case in the private sector. In the private sector today there are virtually no new defined benefit plans being formed, particularly among large employers. As the data we present below reflects, many plans have also been terminated over the recent past. In addition, many of the plans which remain have been frozen, so that there are no further benefit accruals for participants in those plans.

So it is increasingly the norm in the private sector that a defined contribution plan is the principal and often the only plan available to employees to save for their retirement.

Why Maintain Retirement Plans At All?

The conventional reasons historically that have been cited for maintaining a retirement plan or plans include these:

- Along with pay and other benefits and the work environment, properly designed retirement plans provide incentives to help recruit and retain the people that the employer needs;

- The objective is to maintain a competitive (i.e. market based) benefits and pay package, taken as a whole;

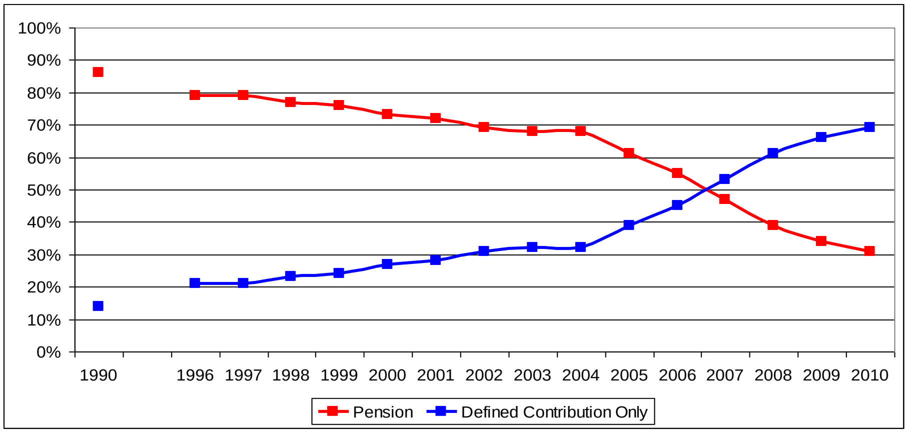
- For some employers, an additional consideration is to assure that employees who have served the employer over a career will have adequate resources when it is time to retire. A defined benefit plan provides the best vehicle for providing income to incent employees who are at the end of their productive careers to retire, without raising age discrimination issues.

All three of these reasons apply if the proper comparators are other public sector employers. Defined benefit plans remain the norm in the public sector, and are in place with all the public employers with which we are comparing the value of Fairfax County pension benefits in this report. As we pointed out earlier, only the District of Columbia maintains a defined contribution plan only for its general employees, among governmental employers in the Metropolitan area of which Fairfax County is a part. Montgomery County has a hybrid defined benefit/defined contribution cash balance plan for its general employees. Both the District of Columbia and Montgomery County have defined benefit plans for their police and uniformed employees.

In the private sector however, the picture is very different. Twenty-five years ago, about a third of working Americans in the private sector were covered under a defined benefit plan and most of those also had access to a defined contribution plan, most commonly a 401(k) plan in the private sector.

Both the rapid growth in defined contribution plans and the decline in defined benefit plans in the private sector are illustrated in the graph below, representing data for large private sector employers.

Percentage of employers offering new hires each type of retirement income plan



Source: Aon Hewitt SpecBook™ and SpecSelect™

According to the March 2011 National Compensation Survey conducted by the Bureau of Labor Statistics, one in five private sector workers have access to a defined benefit plan, and McKinsey & Company has predicted that about half of defined benefit plans still in place will be either frozen or terminated over the next five years. (While we agree that that is a likely outcome in the private sector, we think that such a trend is far less likely in the public sector where defined benefit plans remain the norm.)

Conversely, more than half of American private sector workers have access to defined contribution plans and that proportion has grown steadily since the passage of IRC Section 401(k) in 1978. So a defined contribution plan is the only retirement plan available to supplement Social Security for a large and growing proportion of American workers in the private sector.

How Do Defined Benefit and Defined Contribution Plans Perform, in Meeting the Income Replacement Needs of Career Employees?

We take as appropriate and sound the stated goal of Fairfax County's Retirement Policy – 123 to produce adequate income at retirement to meet the financial security needs of career employees. While it is possible to produce such an outcome under either a defined benefit plan or defined contribution plan, or a combination of the two, the most efficient, least costly way to assure a given level of income at retirement remains a defined benefit plan.

A defined benefit plan and a defined contribution plan will contribute to this eventual outcome – adequate replacement of income at retirement – for career employees at very different paces. The cost associated with the accumulating pension benefits under a defined benefit plan is very low in the early years of an employee's career but builds rapidly at the end of that career. This effect is created both by the time value of money and the inflation protection that is built into the final pay formula commonly used under defined benefit plans.

For example – in one of our earlier illustrations we used an employee retiring at age 61 with 21 years of past service. When that employee was first hired, the value of the benefit earned in his first year was worth 6.6% of pay (though his pay at that point was just about $30,000.) In the year just prior to retirement – at age 60 – the benefit earned in that year was worth 52% of pay.

While the cost of the retirement plan may appear relatively modest compared with these individual costs that occurs because:

- the actuary spreads the cost of the fraction of the county's workforce that actually reach retirement over the pay of the whole workforce, and
- the employees are paying a portion of the cost.

In a defined contribution plan, on the other hand, generally 10% of pay is 10% of pay is 10% of pay, regardless of the employee's age or tenure.

There are various techniques in defined contribution plan design which can produce cost and benefit outcomes closer to those of a defined benefit plan, such as increasing contributions based on an employee's age and/or service. However, none of those techniques are as efficient in directing the bulk of the plan's cost and ultimate benefit value to long term, career employees as is the case with a defined benefit plan. These efficiencies come primarily from two sources:

- More money is paid out in a defined contribution plan costing the same as a defined benefit plan for employees who leave short of retirement, and especially after relatively short service—that additional cost must come at the expense of career employees, for any given level of cost assumed; and

- On average, employees in defined contribution plans earn about 1% less on their invested funds than pension plan sponsors.[1] That doesn't always reflect worse choices on the part of participants generally, but does reflect the different time horizon for investing for the pension plan sponsor versus that same consideration for an individual participant in a defined contribution plan, particularly as the participant nears retirement.

Of course, in a defined contribution plan participants will earn very different rates of return, based both on the investment choices they make and change over time, and the particular time frame over which they will make those choices. Making the right choices can be especially problematic at and after retirement, when the individual still may have twenty or more years over which the accumulated savings must last but is still at a point at which preservation of principal becomes much more important.

[1] Please see the following link: http://www.towerswatson.com/united-states/newsletters/insider/3955

In addition, opportunities for withdrawals and loans within these plans, and opportunities to take lump sum payments on termination of employment, can interfere with the accumulation of sufficient funds when they are needed at retirement to maintain the participant's income needs.

There are thus inevitable variations in securing adequate retirement income at the individual participant level where a defined contribution plan is concerned, regardless of the plan sponsor's and the participants' intentions, just because of the wide range of investment results participants will realize. In a defined benefit plan, however, whatever replacement rate is desired by the plan sponsor is exactly what is provided.

Moreover, in a defined contribution plan even if the amount contributed could on average produce exactly the desired result relative to need for retirees, in practice half would retire with more than they need and half with less, since the volatility associated with investment results (good and bad) and other variables is absorbed by the participant rather than the plan sponsor. The plan sponsor can amortize actuarial losses created by poor results, and reduce contributions to take advantage of gains. That's a luxury the participant does not have.

And finally, the value of a defined contribution plan to the participant is much more dependent on when the employee decides to retire than in the case of a defined benefit plan. If the participant decides to retire too early, he doesn't have enough. If he retires later he can receive much more than is needed. This effect is much more muted in a defined benefit plan.

An article which explores this subject in more depth is available at the following link: http://www.contingencies.org/septoct07/trade.pdf

Thus, if an employer terminates a defined benefit plan (or makes the plan available only to current participants) and moves the same level of contributions to a defined contribution plan, the net effect will be to provide richer benefits to younger, short service employees (many of whom will leave the employer far short of retirement) and lesser benefits to older, long service employees. So the former would be winners in this reallocation of the employer's commitment to retirement income needs, and the latter would be losers.

If a replacement defined contribution plan were considered not just for new hires but for all participants for Fairfax County or for any employer, this different pace of funding would particularly harm participants approaching the end of their careers, and benefit employees with short service and new participants by an offsetting amount.

Stated more simply and directly—to achieve any given level of income replacement at retirement that the County wants to achieve for career employees will cost more in a purely defined contribution approach than under the present defined benefit plans.

Cash Balance Plans

The County also asked that we address the subject of hybrid plans in this report. The most common form of such plans is a so-called cash balance plan. A cash balance plan is technically a defined benefit plan, but a plan which expresses the benefit in terms that are more commonly associated with defined contribution plans. As an example, such a plan might provide that the employee's benefit at retirement is the value of a hypothetical account which is the sum of:

- 5% of pay for each year of service for the employee; plus
- Interest credited at the one-year Treasury bill rate to the value of the account each year.

While that value is expressed commonly as a lump sum amount, in fact it is a defined benefit (whether or not the lump sum value is annuitized at retirement). As with all defined benefit plans the plan sponsor makes the investment decisions with respect to plan assets and is responsible for all the variables that affect plan cost, including actual investment results versus assumed returns (and the stipulated return promised participants), mortality and turnover. In a defined contribution plan, on the other hand, the employer cost is fixed as defined and those elements of risk are assumed entirely by the participant.

Since a cash balance plan is a defined benefit plan, such a plan could be structured around any schedule the employer desires with respect to the annual growth and interest crediting rate in the value of participants' accounts, but with a minimum benefit equal to the statutory standard in the Virginia Code. That would ordinarily produce cost outcomes very similar to those of a defined contribution plan with the same contribution schedule described as the addition to account balances for each year of service, so long as those additions were sufficient to achieve the income level required by the statute. Note that Montgomery County has adopted a hybrid plan for county general employees.

SECTION XI

THE DEFERRED RETIREMENT OPTION PROGRAM (DROP)

What is a DROP and what are the features of Fairfax County's version?

Each of the three retirement systems that Fairfax County sponsors offer a Deferred Retirement Option Program (DROP). The DROP features in each system are similar, with the differences reflecting each system's normal retirement date for unreduced pension benefits. The following is a general description of the DROP in Fairfax County's systems.

When an employee is eligible to retire with a normal unreduced pension benefit the employee has three choices:

(1) retiring immediately or

(2) continuing in full regular employment, or

(3) electing the DROP.

By electing the DROP, an employee makes an irrevocable commitment to end his/her employment no later than three years after the effective date of DROP election. This three year period is referred to as the DROP period.

During the DROP period, for all purposes other than the retirement system, an employee is treated as an active employee. However, further contributions to the Retirement System cease and an employee ceases to earn additional service credit. During the DROP period the retirement system treats the employee the same as any other retiree with two exceptions. First, no deductions for benefits or taxes are withheld from the monthly benefit payment. Second, rather than paying the benefit directly to the employee the plan credits the payment to a DROP account on behalf of the employee. This account is credited with interest at 5% during the DROP period.

At the beginning of the DROP period the employee is required to choose any Joint and Last Survivor benefit option just as if electing a regular normal retirement. Any calculation or adjustment of temporary additional Pre-Social Security Benefits that would have occurred under a regular normal retirement is unaffected by DROP participation and is included in the amount credited to the employee's DROP account. For DROP periods beginning prior to age 62, a DROP participant will receive the full amount of the available Pre-Social Security Benefit for the entire 3-year period. Similarly, any cost-of-living adjustment that would have been paid under a normal retirement is credited to the employee's DROP account.

In general, the DROP election is irrevocable. Only in the case of service-related death or disability during the DROP period may an employee or employee's beneficiary elect to cancel the DROP retroactively. In addition, any sick leave that is carried into the DROP period (not converted to service at the beginning of the DROP period) and any sick leave that is accrued during the DROP period is not allowed to be converted into service credit for retirement benefits.

An employee who elected the DROP may choose to end the DROP period prior to the prescribed three-year period. The DROP period may also end early if the employee is terminated during the DROP period. At the end of the DROP period, whether it lasts the full three-year period or is ended early, monthly plan benefits will begin to be paid directly to the employee, reflecting appropriate deductions.

The accumulated DROP account balance may be paid in full as a lump sum, either directly to the retiree or as a rollover to a qualified plan or Individual Retirement Arrangement (IRA). The retiree also has the option of converting the full DROP account balance or 50% of the balance into an actuarially equivalent increase to the monthly benefit he/she receives. In the latter case the remaining 50% is payable as a lump sum, again either directly to the retiree or as a rollover.

Do Fairfax County Retirement System members use the DROP?

As of July 1, 2009 there were 342 members of the Fairfax Employees' Plan who had elected the DROP provision. Based on five-year age and service categories, among active employees, 184 were age 65 or older and an additional 162 were eligible for the DROP. Four hundred five more are in age and service categories which may qualify them for the DROP. Thus, somewhere between 688 and 1,093 employees were eligible for the DROP and between 31% and 50% had chosen to participate.

As of July 1, 2009 there were 56 members of the Police Officer's Retirement System who had elected the DROP provision. Based on five-year age and service categories, among active officers, 39 had more than 25 years of service and an additional 10 were at least age 55 with at least 5 years of service. Thus, of 105 officers who were eligible for the DROP, 53% had chosen to participate.

As of July 1, 2009 there were 94 members of the Uniformed Retirement System who had elected into DROP. Based on five-year age and service categories, among active uniformed employees, 106 had more than 25 years of service and an additional 23 were at least age 55 with at least 5 years of service. Thus, of 223 employees who are eligible for the DROP, 42% have chosen to participate.

What does it cost Fairfax County to provide the DROP?

It is difficult to establish the cost of a DROP due to many interconnected factors. While a full analysis of the economic variables in a DROP is beyond the scope of this report, a discussion of some ideas and factors such an analysis would consider is presented below.

Fairfax County's program, based on its design alone, does not appear to have a large actuarial imbalance between the cost of providing benefits under the DROP and the benefits that the program pays. There are a number of typical sources of actuarial gains and losses, all of which are relatively minor.

- Actuarial equivalence factors used to adjust DROP account balances to increased annuity benefits may diverge over time from the plan's valuation assumptions.

- The difference in the systems' cash flow requirements may affect the investments' ability to achieve the assumed return.

- The investment results achieved by the system may be higher or lower than the 5% credited to DROP accounts.

- Retirees' elections regarding receiving their DROP accounts as lump sum payments or as increased annuity benefits may produce gains or losses over time.

- Salary increase patterns may be different for those who have elected the DROP.

From the perspective of the retirement system, in its simplest form the DROP does not generate an additional cost if the employee who enters the program would have retired under the same circumstances on the same date in the absence of a DROP. If the employee would have continued to work until the end of the DROP period regardless, then the System is likely to have paid more in benefits under the program than it otherwise would have. This is particularly true in the case of Pre-Social Security benefits under the Fairfax Employees' Plan and the Uniformed Retirement System.

From the perspective of the employer's budget for active employees, if a fixed number of job skills are required to perform the employer's required function then ideally it would be cost neutral to perform those functions with an existing employee compared to promoting or hiring from outside the organization. In practice, hiring and promotion patterns are much more complex. When employees enter DROP rather than retiring immediately, job skills are retained and recruiting and training costs are diminished. At the same time, promotions, pay increases and job growth for other staff are delayed and increased turnover among that group may result. Also, employees who have entered their DROP period may not continue to show the same level of job commitment if they have been enticed to stay on solely for financial reward.

From the perspective of an employee/retiree the DROP may serve as an enticement to continue service to the County. If the employee would otherwise have retired as of the beginning of the DROP period, then the pay earned during the additional three years of work is significant. Even if the employee would have retired and found similar employment elsewhere for three years, avoiding a job search and other life disruptions has value. If the employee would otherwise have retired as of the end of the DROP period, then there is value in the additional flexibility in the benefit received from DROP payment options. The specifics of whether the net economic value of three years of additional benefit accrual compared to three years of benefit payments will vary based on individual circumstances.

All parties accrue some benefit from a DROP feature in the form of enhanced certainty in retirement patterns. Employees can plan for their retirement with more certainty with additional time and resources available to them. Employers can perform succession planning, schedule training and recruitment and conduct staffing projections with more certainty. The system will have more certainty regarding when payments from the plan must be made, but will accrue less benefit than the other parties since uncertainty will emerge regarding entry into the DROP and the form of DROP payment selected.

Is Fairfax County's DROP benefit feature common?

While it is beyond the scope of this report to compile broad statistical information on the prevalence of DROP features around the country, it is clear from a cursory review of the available studies that DROP benefits are much more common among public safety and uniformed employee plans than for general employee populations.

For example, in the study presented elsewhere in this report, of the local comparators selected by Fairfax County, only one offers a DROP benefit to its general employees. By contrast, of the three comparators with completely stand-alone plans for uniformed employees, all three offer a DROP. The federal government's plan does not have a similar feature for general or public safety employees.

The Virginia Retirement System (VRS), and the two other comparators whose employees are covered by it, offers a Partial Lump-sum Option Payment (PLOP) benefit feature. While similar in appearance to a DROP, the PLOP feature is much less likely to result in economic variability since the benefits paid at the end of the PLOP period are reduced by the actuarial equivalent of the accumulated payments during the period. The VRS PLOP feature applies to both general and public safety employees.

SECTION XII

PLAN GOVERNANCE, OVERSIGHT INVESTMENT ISSUES

The management and governance of public retirement plans has drawn steadily increasing scrutiny in recent years. Numerous studies, surveys, articles and reports have been published. There is a great deal of consensus and in general these documents discuss plan management and oversight, the structure of the body responsible for those functions and some methods used for carrying out those functions. We will refer to this body here as the board or the trustees, in keeping with the way this function is defined in Fairfax County.

Several entities have created documents with guidelines for effective governance. We have specifically examined two such documents which we feel to be representative. The first was published by the Government Finance Officers Association (GFOA) in 2010 titled GFOA Best Practice, Governance of Public Employee Post-Retirement Benefit Systems. The second was published by the Organisation for Economic Co-operation and Development (OECD) in 2009 titled OECD Guidelines for Pension Fund Governance. Both documents have been included in Appendix J.

Historically, much of the thinking regarding plan governance has been focused on pension plans and other retirement income plans. In general, the practices that have evolved for pension plans are equally applicable to other (non-pension) post-employment benefits such as retiree health care. Certain aspects of trustee education and the type of expert advice required are different but the overarching principals are very similar and other than in certain specific instances, we do not differentiate between pension and non-pension benefits in this section. Similarly, to avoid repetition, unless specifically identified separately, the comments apply equally to the separate retirement plans sponsored by Fairfax County.

The best practices and elements of effective plan governance relate to three primary functions. The three are connected and must occur together to be at their best.

Documentation

Documentation begins with a firm understanding of the plan's authority and function, often found in authorizing legislation and plan documents, if separate. The authority of the board itself may be separate and should be documented along with any specifications or regulations regarding board membership and trustee selection as well as any specific roles that individual trustees must conform to. The operation of the plan itself should be well documented, including any administrative procedures that are not explicit in more formal documents. Procedures adopted as to the operation of the board, including the makeup and function of any subcommittees should be documented. There should be stand-alone documents related to certain critical areas of board responsibility such as the plan's investment policy. Finally the actions of the board should be documented fully through meeting minutes.

Action

Beginning with the selection of a trustee, certain principles must flow through all board and individual trustee action. There is a primary duty to act prudently and in the interest of plan participants and beneficiaries. That duty is best served by knowledgeable trustees. The plan should offer and require robust orientation, training and education programs for trustees. Such programs should include knowledge specific to the plan and its particular situation but also general knowledge about investments and other issues affecting plan management such as new accounting initiatives. The selection of professional service providers (investment advisors, accountants, actuaries, attorneys, etc.) must be performed in an open and robust manner with ongoing monitoring of the quality and efficiency of those services. It is also important to note that in some situations inaction can be just as contrary to effective management as improper action and trustees must be prepared to respond to emerging circumstances.

Reporting

In the United States there are robust reporting requirements for private retirement plans as required by various pieces of legislation and regulation. Public retirement plans have less specific requirements, but have a group of interested parties and/or stakeholders that is at least as diverse as private plans. Retirement plans should have open operations and robust reporting of operational and financial dealings of the board. Examples of the type of information that should be reported are:

- plan participant demographics (age, service, pay, pension benefits, etc.)
- plan investment policy
- actual plan investments
- plan investment performance
- plan expenses
- members of plan governance bodies (boards, committees, etc.)
- employees of the plan
- any significant changes or actions by:
  - the board/plan
  - overseeing legislators and regulators
  - participating employers

– guidelines affecting supporting professionals (accountants, attorneys, actuaries, investment professionals, etc.)

Governance procedures in place at Fairfax County's plans meet the qualifications of good governance outlined above. Documents and reports exist which provide thorough documentation.

- Each system has a diverse board of trustees.
- Each system has adopted a robust Investment Policy Statement.
- There is periodic reporting of major plan news to both active and retired participants.
- The reporting of plan operations in the Consolidated Annual Financial Reports (CAFR) is broad and thorough, with particularly strong actuarial reporting available.

It is our understanding that the operations of the plan have not had any significant deficiencies identified. Such deficiencies often are identified at other plans through annual audits of the CAFR, stand-alone operational audits or participant complaints/legal action.

The performance and management of the various plan's investment portfolios has been well managed by the trustees. There is significant transparency regarding the systems' policies and actions regarding plan investments. The performance of the portfolios relative to benchmarks and peers has recently been among the leaders nationwide.

It is particularly notable that Investment results have been strong over the long term, with compound annual returns over the last 30 years ranging from 9.5% to 10.3% for the three County retirement systems.

For the 10 year period ending June 30, 2011, in the face of very difficult markets, annual compound returns for all three systems were in the top 15% of the public fund universe. These results added $750 million in value over what would have been achieved with median public fund returns.

We should also note that the three plans are managed as completely separate entities and have distinctly different needs in terms of their appropriate risk portfolio and corresponding asset allocation decisions. These differences are important to recognize and it is necessary that each system has the ability to manage its risk in the manner that its board recommends. There are, however, additional economies of scale that can be achieved by the systems working more closely together.

In particular, the investment advisory role in which specific investment managers are selected and monitored can be consolidated across the plans. This will allow the systems to take full advantage of their combined size in leveraging that expertise. Once best in class managers have been identified in the various asset classes that the systems' investment policies indicate, the three systems will retain the freedom to allocate among those managers according to policies as their trustees see fit. This approach would be an additional enhancement to an already well-run and critical function of the boards.

SECTION XIII
OPTIONS FOR CONSIDERATION

Issues that Will Frame the Decision to Make Changes in the Retirement Plans

Before we proceed to a discussion of options that might be considered by Fairfax County to make structural changes in the retirement plans (both retirement income and retiree health benefit plans) we should note that such decisions require analysis and consideration in the context of a number of fiscal and employee relations factors. Such factors include:

- What are the current and future fiscal requirements for the County? Is there an immediate or impending need to reduce or re-allocate costs?
- Is the County's total compensation program – wages plus benefits – where it needs or should be, to remain competitive in the marketplace?
- Are there any current or expected recruitment and retention problems that might be exacerbated by benefit reductions, or improved by a restructuring that could make the plans more attractive over time?
- What is the current situation regarding relations between the County and the organizations which represent employees?
- Are there current employee morale issues that must be taken into account?
- What has been the recent history with respect to wage adjustments, and is that changing?
- How will the requirements of Virginia Code continue to be met with respect to pension benefits?

With this background, we note below certain areas where we believe the County might at this time consider making changes, and some additional factors that will bear on that consideration. After further discussion with the County's executive leadership, we can make more definitive recommendations with the assurance that those recommendations are informed by a better understanding of the overall fiscal and employee relations environment. That will help assure a better outcome both for the County and employees, and the taxpayers whom you serve.

The Retirement Plan Generally

We do not recommend that the County move toward reliance on either a defined contribution plan or a cash balance plan as the cornerstone of providing for career employees' income needs at retirement. The reason, simply stated, is that the current approach is the most efficient way to achieve the key results that are intended, as documented in the Retirement Policy, and to comply most clearly with the requirements of the Virginia Code.

However, there are a number of factors that make the following worth considering—modifying some features of the retirement income plan that make that plan generous relative to the comparator jurisdictions with which Fairfax County competes for talent, and using some or all of the savings to improve other elements of the retirement plan package taken as a whole.

Fairfax County currently maintains a defined contribution plan in the form of the 457 plan, which is available to all County employees. If at some point the County wished to restructure the retirement program in recognition of the relative generosity of the present defined benefit plans – or in response to the changing competitive landscape for retirement programs in the future – such a restructuring could potentially revolve around either or both of the following options:

- Increasing the visibility and participation in the 457 plan through a matching contribution and/or a basic contribution which would not be contingent on employee contributions; and

- Increasing the County's explicit subsidy toward the cost of retiree health benefits. The latter option would also create greater tax efficiency, in that County contributions toward the cost of retiree health care are never taxed, which is not the case with benefits from the defined benefit plan or the 457 plan, which are subject to tax.

Either or both options could be structured to create a cost neutral outcome or to create a reduction in the County's overall costs. Interestingly the most prominent example of such a restructuring is provided by the Federal Government, in the phasing out of the Civil Service Retirement System (CSRS) and the phasing in of the Federal Employees Retirement System (FERS) which took place beginning January 1, 1984.

That restructuring involved the following elements:

- Federal employees for the first time were included in the Social Security system, with the contributions required of all other participants in the system a central part of the Social Security reforms adopted in 1983.

- The Civil Service Retirement System was retained for employees and retirees previously covered under that system, though employees were given the option to join the new FERS plans.

- The defined benefit plan offered under FERS was a less generous plan than CSRS, but also required no employee contributions, compared with the contributions of 7% of pay or more under CSRS.

The Thrift Savings Plan (TSP) was added, and that plan provided both a basic (automatic) contribution of 1% of pay, and a matching contribution formula that yields an additional 4% of pay contribution for employees who contribute 5% of pay or more. Many employers in the private sector who have retained a defined benefit plan have followed a similar approach, restructuring the defined benefit plan to reduce the commitment to that plan, and taking a portion (or all) of the savings to enhance the employer's contributions to the defined contribution plan, usually a 401(k) plan.

The prevalence of defined contribution plans in the private sector compared with defined benefit plans has emerged for very good reasons, which benefit the employer as well as employees. These include:

1. Defined contribution plans can be an effective vehicle for encouraging employees to save for their own retirement. Such encouragement includes typically a matching contribution (with the most common match being 50% of the employee's contributions up to a maximum percentage of pay). In addition, some plans provide for a basic contribution of some modest percentage of pay (similar to the automatic and matching contributions under TSP).

2. Employees understand defined contribution plans better and many employees simply like them better. Thus, for any given level of contribution the employer makes to a defined contribution plan, a common perception is that the employer gets a better return in employee relations than for contributions to a defined benefit plan. That is especially likely among younger employees, who are often more mobile and who will benefit more relative to older, long service employees under a defined contribution plan.

3. Under the withdrawal and loan rules that apply to defined contribution plans, employees can tap their account balances for financial needs short of retirement. This has two sides, of course, enhancing the popularity of such plans but potentially detracting from their effectiveness in accumulating the savings necessary for the employee to retire in reasonable circumstances.

4. Finally, the costs associated with defined contribution plans are highly predictable and easy to budget with confidence. As we have pointed out and the County has experienced, costs of a defined benefit plan are volatile. While the objective is usually to fund the plan at a level percentage of pay over time, and some smoothing techniques are available to mitigate fluctuations in cost, fluctuations are to some degree inevitable. Additionally there is a strong trend towards linking the investment of the plan's assets to the structure of the liabilities; commonly referred to as Liability Driven Investment to further mitigate volatility.

5. One other advantage commonly cited for defined contribution plans versus defined benefit plans is their lower administrative costs. This advantage is illusory. Both types of plans involve significant administrative requirements and costs, and numerous studies have shown that the administrative costs of defined contribution plans are higher per participant and as a percentage of assets than the costs of defined benefit plans. The cost of administering defined contribution plans is often passed along to plan participants in asset charges and other fees, however, which results in a kind of progressive taxation on the accumulating savings of plan participants. That is the case currently with respect to the County's 457 plan, where the participant bears the cost through asset charges and other fees levied against participant accounts.

If a restructuring along the lines described above were to be considered, the retirement systems already in place could accommodate that restructuring, since they are already a combination of the current defined benefit plan, the 457 plan and the post-retirement health benefits plan available now to County employees. We have shown that the existing defined benefit plans are of similar or greater value than the VRS, so there is capacity for some structural change while still meeting the two-thirds statutory requirement.

Specific Areas where Costs of the Defined Benefit Plan Might be Reduced

As we have noted, the Fairfax County Retirement Plan for general employees is especially generous when compared with the plans provided in the other jurisdictions selected for that purpose. It is also interesting that the plan contains two particular unusual or more generous features (compared with the other plans) that are essentially in tension:

- The Social Security supplement feature, which provides more generous benefits for employees retiring before they are eligible for full Social Security benefits; and

- The DROP feature, which is not common in the plans for general employees in the other jurisdictions.

The first feature encourages early retirement, and rewards generously those employees who do retire early. The second feature is designed to offer an incentive for an employee not to retire early, but to stay on beyond the point they otherwise would have intended to retire.

Since the first feature is a major contributor to the relative generosity of the general employees plan compared with the plans of the other jurisdictions, it might well be considered for paring back to reduce the costs (and the relative generosity) of that plan. If the County wished to make that change in a way that was cost neutral, and did not involve in the aggregate reducing benefits to County employees, that savings could then be redirected into matching and/or automatic County contributions to the 457(b) plan.

This type of change could also be phased in, by maintaining the current Social Security supplement for employees within a few years of retirement, and reducing it in stages for employees who are further away from retirement. We are working with the County's actuary in refining these related suggestions around particular cost estimates, after further discussion with the County's executive leadership.

Such a change would ultimately eliminate the tension between the effects of the Social Security supplement and the DROP feature, and have several other salutary effects:

- The combination plans would be more appealing to employees generally, and especially to younger employees;

- This approach would reduce the relative generosity of the core defined benefit plan compared with the peer group of public employers, without reducing the County's total commitment to retirement savings;

- The phasing in of the reduction produces a desirable symmetry between the effect on employees near retirement, who would have little or no time to build up meaningful balances in the enhanced 457(b) plan, and those with many more years until retirement who would have ample time to replace the value of the reduced Social Security supplement through their and the County's contribution to the 457(b) plan.

- A matching contribution would increase participation in the defined contribution plan, which ultimately benefits both the County and the employees through encouraging more employee savings for retirement income need (given the fiscal strains that are ahead for Social Security, this is an especially important consideration);

- Those costs shifted to the defined contribution plan will be more predictable and less volatile than if they remained within the current defined benefit plan.

- These changes would retain consistency with both the County's Retirement Income Policy and the requirements of the Virginia Code.

We also note that there is some exposure to the County in the way that the County's sick leave policy interacts with the defined benefit plan. In some cases, since the County does not limit the amount of sick leave that can accumulate over a career, significant sick leave balances can accrue. These significant balances can skew retirement benefits upwards for certain individuals. Note that we do not see this as a problem with the plans themselves but rather as a potential problem with the sick leave policy that impacts the defined benefit plan.

Practices at comparator jurisdictions vary, but in general they each have some limit to the impact that sick leave accrual can have on pension benefits. Those limits range from not recognizing accumulated sick leave at all (Federal government) to the VRS approach of allowing retirees to purchase an actuarially equivalent annuity with a cash payout of their sick leave.

The defined benefit plans can be amended to eliminate or limit the sick leave that can be applied to pension benefits. A best practice solution may involve some changes to the defined benefit plan but would more properly focus on sick leave accumulation. There are a number of innovative and integrated paid time off solutions that limit the accrual of extremely large time off balances while balancing aspects of overall employee compensation, time off needs of employees, health and disability management and other joint employee/employer concerns.

We believe that an integrated approach to paid time off and absence management will significantly reduce the County's retirement plan exposure to extremely large sick leave balances but will also benefit the County and its employees in other ways.

Retiree Health Benefits

As we have noted in the body of this report, the retiree health benefits are not as generous relative to the comparator employers as is the case with the County's defined benefit plan. If cost neutrality is in order, as we have pointed out another alternative would be to take any savings generated from modifying benefits under the defined benefit plan, and apply those to increasing the County's share of contributions toward the cost of health benefits after retirement.

As discussed, the principal advantage of this approach relative to improving the 457(b) plan is that it creates the tax efficiency associated with the fact that the participant never pays taxes on employer contributions to the health benefit plans.

On balance, we would favor using any savings from modifications to the defined benefit plan to improve the 457(b) plan. Part of the reason for this preference is that many public sector employers have reduced (or are planning to reduce) their level of commitment to post-retirement health benefits. We believe this trend is certain to continue, reflecting both fiscal pressures on state and local governments and the provisions of the Affordable Care Act, especially with respect to prescription drug benefits for Medicare eligible Americans. So improving the County's contributions to retiree health benefits would be moving against this trend, which we would not recommend.

The Dynamics of Retirement Benefits in the Public Sector Going Forward

All of our public sector clients and public sector entities generally are facing budget challenges. These challenges have been greatly compounded in the recent past by developments in the retirement benefits arena, both with respect to defined benefit plans and retiree health coverage. Those developments include challenging demographic changes, investment markets, the increase in pension liabilities that have resulted from the continued decline in interest rates in recent years, and the advent of GASB 45 State and local government employers generally, including those whom we serve as clients within the greater metropolitan area, continue to look for ways to reduce those costs while providing a meaningful and competitive benefit package to their retirees. So, while we have prepared benchmarking on the basis of plans as we know them to be for 2011, we also know that most employers – including state and local government employers--are considering changes to these benefits and benchmarking results may be very different in the future. A notable example of this trend is the recent decision by the Maryland legislature to make significant changes in both the State's defined benefit plan and the retiree health benefit plan, including phasing out prescription drug coverage entirely by 2020 for Medicare eligible retirees.

With respect to retiree health benefits, most entities, including Fairfax County's Benefits Division, should consider over time:

- tighter eligibility for benefits, by increasing the age and service conditions required for coverage, if the County finds that employees are not retiring as early as they used to retire, or they are retiring from the County yet moving on to other employment while continuing to draw on County benefits;

- increased cost share for services, including the consideration of lower premium, high deductible health plans that provide more incentive for individuals to seek the most appropriate treatment in the most appropriate setting at the best cost for that treatment and provide partial funding for a Health Savings Account (HSA) for individuals to spend on those costs of services;

- increases or changes in contributions for coverage, including the removal or phase-out of the implicit subsidy in the rates charged to retirees for coverage;

- alternatives for Medicare retiree drug benefits, to take advantage of increasing subsidies from the Federal Government and manufacturer discounts on certain brand name drugs; and

- how employer programs might mesh with the upcoming State health care exchanges to provide coverage to pre-Medicare retirees to provide more choice in benefit offerings and to allow pre-Medicare retirees to take advantage of federal government subsidies for which they may qualify. Coordinating benefit delivery through State exchanges would involve the use of health reimbursement arrangements (HRAs) to reimburse retirees for purchase of health coverage on the individual market.

We will continue to monitor developments in this area on behalf of Fairfax County and our other state and local government clients, and to keep the County apprised as these factors in the competitive environment influence the County's future benefit considerations for both active and retired employees. We look forward to refining our recommendations and the options for the County's plans after further discussion with the County's executive leadership.

Retiree Medical Benefits

For most employees, the decision to retire is influenced by the availability of an appropriate level of income replacement and affordable health care coverage. To support the notion of targeted benefits for career employees, the retiree medical program should:

- Allow eligibility and commencement of some level of retiree medical benefits after 25 years of service for public safety employees and starting at age 55 with at least 25 years of service for general employees.
- Provide a reduced subsidy once Medicare-eligibility age is reached.
- Continue to maintain the flat-dollar monthly subsidy design to retain cost control.

However, future additional subsidies should be designed to account for different levels of service (with the maximum subsidy provided after 25 years of service) and for different levels of cost based on Medicare eligibility.

To be competitive among your peer group, material increases in the subsidy for pre-Medicare eligible benefits should be considered for career employees, with significant reductions for employees retiring with less than 25 years of service.

Financial Balance

The County's limiting factors in providing retirement benefits is the impact on the County's financial resources and ability of employees to contribute more. The target benefit levels should be measured against a normal cost of benefits without regard to offsetting gains and losses. A relationship between the employer normal cost and the employee contribution should be identified and maintained. Benefits should then be considered based on the acceptable financial burden defined by the employer and employee normal cost as well as the funded status to compare the long-term cost to short-term funded status when cost may be artificially low due to recent favorable experience.

Improving retiree medical benefits could significantly increase the County's financial obligation. The funding obligation for retirement benefits should include the future improvement in retiree medical benefits in aggregate to balance the commitment of resources for each program. Also, retiree medical benefit cost should be measured as a long-term liability rather than as a pay-as-you-go item.

Policy Committee

A Policy Committee made up of employee and employer representatives will be assembled to carry out the objectives of this policy. The committee's responsibilities include:

- Receive and consider requests for benefit changes.
- Achieve and maintain equal benefit levels at target career employment.
- Coordinate studies and analyze measurements defined in the policy to ensure periodic review of the policy objectives and practice.
- Balance the financial obligation of the retirement plans with the long-term retiree medical obligations and maintain their alignment with the policy objectives.
- Present recommendations to the County Executive and Board of Supervisors.

The Committee could include representatives from each of the boards, employee representation, human resources, fund administrator, finance department and County management.

Fairfax County Retirement Policy — January 2001
REVISED

Mission

As a progressive employer, Fairfax County strives to provide a responsible, tax efficient, competitive retirement program as a significant source of financial security during retirement for career employees as well as valuable benefits for all employees as recognition of their employment with the County.

Career Employee

A career employee is an employee eligible for career benefits. The term does not necessarily reflect the full working career of an employee in our society, but more the full and sufficient contribution of service to the County for full-career benefits. Career benefits means the level of retirement income the County supports as appropriate to meet the financial security needs of its' career employees.

Public safety employees — including police, fire, other uniformed employees and support employees — are targeted for a career defined as completion of 25 years of service with the County. Public safety employees' careers reflect the physical demands of the job.

While a Supplemental Plan participant can retire as early as age 50, the target benefits for the Supplemental Plan at age 55 and 25 years of service will be used to address benefit comparability.

Benefit Levels

The goal for income placement at retirement is to replace disposable income — otherwise considered net take home pay. Usually this means replacing between 60 to 80% of final pay.

Current benefit levels targeted as take home pay for a single taxpayer after deductions for federal taxes, FICA taxes, and employee contributions average 67% of final pay for all three groups of employees covered by the Supplemental Plan, Uniformed Plan, and Police Plan. It would make sense for this to be the minimum target. General public policy is that retirement benefits not be designed to exceed 100% of final pay at any point during retirement, including when Social Security benefits become payable.

Maintaining Purchasing Power

Provisions should be made to protect benefit purchasing power through periodic increases in retiree benefits to reflect inflation. This should be done equally among retirees of the three plans.

Portability

Portability of benefits for people from other jurisdictions in Virginia typically results in very low service credits. This is a particular issue with Supplemental Plan participants. Similar issues are not experienced to the same degree among most of the employees covered by the Uniformed and Police Plans. Due to limitations under Virginia law and the higher value of Fairfax County benefits to other jurisdictions, new employees from other jurisdictions do not get much in terms of benefit credits by transferring benefit credits.

The value of addressing portability appears to be limited under the current structure. The opportunity to provide more favorable portability rules should be reviewed from time to time.

Attraction and Retention

While some jobs within the County may be highly competitive, the retirement program is not a critical component to meet retention and attraction needs. However, this can become an issue and the opportunity to add some defined contribution benefit alternatives should be addressed from time to time when other benefit enhancements are considered to enhance benefits for shorter-service participants if needed because of retention issues.

Appendix B - Summary of General Employees Retirement Income Plans

	Fairfax County				
	Plan A	**Plan B**	**Fairfax County Schools - ERFC**	**VRS Pre 7-1-10**	**VRS Post 7-1-10**
Basic Plan Formula	Plan A - 1.8% x FAE-3 to covered comp + 2% X FAE-3 over cc. X serv. Final total then increased by 3%. Pre SSNRD benefit - 1% x FAE-3 up to cc times service. The total is then increased by 3%.	Plan B - 2% x FAE-3 x service. Total then increased by 3%. Pre SSNRD benefit - 1% x FAE-3 up to cc times service. The total is then increased by 3%.	VRS + 0.8% x FAE x service	.017 x FAE-3 x service Plus $240 per year in the 403b Plan	.017 x FAE-3 x service Plus $240 per year in the 403b Plan
Maximum service counted	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
Earnings include	Base pay - no overtime	Base pay - no overtime	Base pay	Base pay, no overtime	Base pay, no overtime
Averaging period	36 consecutive month average	36 consecutive month average	High three years	36 consecutive months	60 consecutive months
When full benefits paid	65/5 or A+S=80 years if age 50 or over	65/5 or A+S=80 years if age 50 or over	Age 60 with 5 years service, or 30 years of service	65/5 or 50/30	SSNRA/5 or age+service=90
ER Reductions	Age 50 and A+S =75 1/15, 1/30 prior to age 65 No pre SS benefit for ER	Age 50 and A+S=75 1/15, 1/30 prior to age 65 No pre SS benefit for ER	None - must reach age 60	At 55/5 = 6% per year for the first 5 years, then 4.8% per year At 50/10, actuarially reduced from 55/5 benefit	60/5, benefit is reduced
Employee contributions	4.00% up to the Social Security taxable wage base and 5.33% above the SSWB	5.33% of compensation	4% of compensation	5% of pay, picked up by employer $480 per year for the 403b	5% of pay, picked up by employer $480 per year for the 403b
Cost-of-living increases	100% up to 4% (added 1% possible with surplus)	100% up to 4% (added 1% possible with surplus)	3%, regardless of actual inflation (added 1% possible with surplus)	First 3%, plus 1/2 of the excess to a maximum COLA of 5%	First 2%, plus 1/2 of the excess to a maximum COLA of 6%
Sick Leave	Unused counts as service	Unused counts as service	Unused counts as service (see Regulations 1.06C)	Paid as cash. May be used to purchase actuarial equivalent	Paid as cash. May be used to purchase actuarial equivalent
Source	SPD	SPD	Plan Document	SPD	SPD
Vesting	5 years	5 years	5 years	5 years	5 years

Appendix B - Summary of General Employees Retirement Income Plans

	Fairfax County				
	Plan A	Plan B	Alexandria Supplemental to VRS	Arlington Chapter 46	Loudoun County Use VRS
Basic Plan Formula	Plan A - 1.8% x FAE-3 to covered comp + 2% X FAE-3 over cc. X serv. Final total then increased by 3%. Pre SSNRD benefit - 1% x FAE-3 up to cc times service. The total is then increased by 3%.	Plan B - 2% x FAE-3 x service. Total then increased by 3%. Pre SSNRD benefit - 1% x FAE-3 up to cc times service. The total is then increased by 3%.	0.80 x FAE-3 x service	1.7% x FAE-3 - maximum of 51% of FAE Plus, 4.2% defined contribution	.017 x FAE-3 x service
Maximum service counted	Unlimited	Unlimited	Unlimited	30 years	Unlimited
Earnings include	Base pay - no overtime	Base pay - no overtime	Annual Base Compensation	Base pay as of 7/1/10	Base pay, no overtime
Averaging period	36 consecutive month average	36 consecutive month average	3 Year	3 Year	36 consecutive months
When full benefits paid	65/5 or A+S=80 years if age 50 or over	65/5 or A+S=80 years if age 50 or over	65, or 50/30	Age 62, Age + Service = 80 30 years service	65/5 or 50/30
ER Reductions	Age 50 and A+S =75 1/15, 1/30 prior to age 65 No pre SS benefit for ER	Age 50 and A+S=75 1/15, 1/30 prior to age 65 No pre SS benefit for ER	At 55/5, reduction is 1/15, 1/30	• Age 55 with 5 years of service • Age 54 with 17 years of service • Age 53 with 19 years of service • Age 52 with 21 years of service • Age 51 with 23 years of service • Age 50 with 25 years of service Reduced 6% per year before 62	At 55/5 = 6% per year for the first 5 years, then 4.8% per year At 50/10, actuarially reduced from 55/5 benefit
Employee contributions	4.00% up to the Social Security taxable wage base and 5.33% above the SSWB	5.33% of compensation	None - Considering 2% contribution for Supplemental	4% of pay	5% of pay, picked up by employer
Cost-of-living increases	100% up to 4% (added 1% possible with surplus)	100% up to 4% (added 1% possible with surplus)	None	First 3% of CPI-Urban plus half of increase from 3% to 12% up to maximum of 7.5%.	First 3%, plus 1/2 of the excess to a maximum COLA of 5%
Sick Leave	Unused counts as service	Unused counts as service	None	Employees hired after 1/1/2001 only receive service credit for accumulated sick leave	May be used to purchase actuarial equivalent
Source	SPD	SPD	SPD	Valuation Report, SPD	SPD

Vesting	5 years	5 years	5 years or age 60	5 years	5 years

Appendix B - Summary of General Employees Retirement Income Plans

	Fairfax County				
	Plan A	**Plan B**	**Montgomery**	**Prince Georges MD EPS**	**Prince William Use VRS**
Basic Plan Formula	Plan A - 1.8% x FAE-3 to covered comp + 2% X FAE-3 over cc. X serv. Final total then increased by 3%. Pre SSNRD benefit - 1% x FAE-3 up to cc times service. The total is then increased by 3%.	Plan B - 2% x FAE-3 x service. Total then increased by 3%. Pre SSNRD benefit - 1% x FAE-3 up to cc times service. The total is then increased by 3%.	Defined contribution - 8% of pay with fixed 7.25% return	0.8% x FAE-3 up to CC, 1.5% over, times service. Supplemental = 1% of FAE-3 times service	.017 x FAE-3 x service
Maximum service counted	Unlimited	Unlimited	Unlimited	Supplemental cap is 30 years	Unlimited
Earnings include	Base pay - no overtime	Base pay - no overtime	Base Salary	Base Salary	Base pay, no overtime
Averaging period	36 consecutive month average	36 consecutive month average	NA	Three highest consecutive annual salaries	36 consecutive months
When full benefits paid	65/5 or A+S=80 years if age 50 or over	65/5 or A+S=80 years if age 50 or over	NA	Age 62-65 with A+S=67 or 30 years	65/5 or 50/30
ER Reductions	Age 50 and A+S =75 1/15, 1/30 prior to age 65 No pre SS benefit for ER	Age 50 and A+S=75 1/15, 1/30 prior to age 65 No pre SS benefit for ER	NA	55/15, Reduced 6%/year before age 62. Max reduction is 42%	At 55/5 = 6% per year for the first 5 years, then 4.8% per year At 50/10, actuarially reduced from 55/5 benefit
Employee contributions	4.00% up to the Social Security taxable wage base and 5.33% above the SSWB	5.33% of compensation	4% of regular earnings up to the maximum SSWB, plus 8% of earnings above that	5% earnable compensation that exceeds SSWB + 50% cost of supplemental (with some exclusions)	5% of pay, picked up by employer
Cost-of-living increases	100% up to 4% (added 1% possible with surplus)	100% up to 4% (added 1% possible with surplus)	NA	100% up to 3% of initial benefit, not compounded - Supplement - none	First 3%, plus 1/2 of the excess to a maximum COLA of 5%
Sick Leave	Unused counts as service	Unused counts as service	NA	Unused counts as service if direct retirement, does not reduce ER factor	May be used to purchase actuarial equivalent
Source	SPD	SPD	SPD	SPD	SPD

Vesting	5 years	5 years	3 years	5 years	5 years

Appendix B - Summary of General Employees Retirement Income Plans

	Fairfax County			
	Plan A	Plan B	Federal Program - Defined Benefit	Federal Program - Defined Contribution
Basic Plan Formula	Plan A - 1.8% x FAE-3 to covered comp + 2% X FAE-3 over cc. X serv. Final total then increased by 3%. Pre SSNRD benefit - 1% x FAE-3 up to cc times service. The total is then increased by 3%.	Plan B - 2% x FAE-3 x service. Total then increased by 3%. Pre SSNRD benefit - 1% x FAE-3 up to cc times service. The total is then increased by 3%.	1% of High-3 times service If over 62/20, 1.1% time service Supplement to 62 if any/30, 60/20 = SS payable at age 62	Unmatched 1% of basic pay Match is 100% first 3%, 50% next 2%
Maximum service counted	Unlimited	Unlimited	Unlimited	Unlimited
Earnings include	Base pay - no overtime	Base pay - no overtime	Basic pay only	Basic pay only
Averaging period	36 consecutive month average	36 consecutive month average	High-3 Average Pay	NA
When full benefits paid	65/5 or A+S=80 years if age 50 or over	65/5 or A+S=80 years if age 50 or over	62/5, 60/20, any/30	NA
ER Reductions	Age 50 and A+S =75 1/15, 1/30 prior to age 65 No pre SS benefit for ER	Age 50 and A+S=75 1/15, 1/30 prior to age 65 No pre SS benefit for ER	Variable between 55 and 57 (using 55) with 10 years of service	NA
Employee contributions	4.00% up to the Social Security taxable wage base and 5.33% above the SSWB	5.33% of compensation	The difference between 7% of basic pay and Social Security's OASDI tax rate, or 0.80%.	5% to get maximum match
Cost-of-living increases	100% up to 4% (added 1% possible with surplus)	100% up to 4% (added 1% possible with surplus)	Based on CPI, 100% of the first 2%+amount above 2% less 1%	NA
Sick Leave	Unused counts as service	Unused counts as service	None	NA
Source	SPD	SPD	SPD	SPD
Vesting	5 years	5 years	5 years	3 year for 1%, immediate for matching

Appendix C – Numerical Results for Retirement Income Plans
Assumptions used for Illustrations

Assumption	Use	Value
Age/service/salary at retirement	As listed in each section	Per Section
Interest rate	Discounting present values of defined benefits, accumulating employee contributions, and accumulating defined contribution plans	7.5%
Salary scale	Used to estimate salaries back to hire or to a future retirement date	4%
Inflation	Used to increase benefits after retirement in conformance with the plan provisions	3%
Trend	The rate of increase in the cost of medical benefits in the future	Currently 9.25% for pre-65 benefits and 7.25% for post-65. Rates decline over time, with a long term assumption of 5%.

Appendix C – Numerical Results for Retirement Income Plans
Assumptions used for Illustrations, continued

Here is a sample of the charts included in each benefit comparison.

Reference Employee	
Age	61
Past Service	21
Retirement Age	61
Base Salary	65,000
Total Salary	65,000

Results

	Fairfax A	Fairfax B
Basic Benefit	24,346	27,051
Value of Basic Benefit	251,352	279,280
Value of the Supplement	55,818	55,818
Value of C-O-L Provisions	76,433	84,573
Total Value of Benefit	383,602	419,671
Value of Employee Contributions	80,467	107,223
Employer Provided Value of Benefit	303,135	312,448

The top portion of the chart lists the specifics on the employee we are valuing – in this case the employee is age 61 with 21 years of past service. The employee earned $65,000 in his last year of employment – this is not his final average earnings. That is determined in the various calculations by assuming a 4% back salary scale, resulting in a final average earnings rate of $62,532 in the Fairfax plan, for example.

Appendix C – Numerical Results for Retirement Income Plans Assumptions used for Illustrations, continued

The following is a description of the values shown for the Fairfax Plans and for each comparator.

Basic Benefit	This is the benefit calculated under the main formula of the plan in question. In the case of Fairfax, for example, it is the benefit payable without regard to any temporary supplement. In a few cases, the benefit is not shown. These are generally defined contribution plans that do not provide for a fixed benefit amount.
Value of the Basic Benefit	This is the present value of the benefit. It is important to note that this is the basic benefit – there are no cost-of-living increases assumed nor is the value of the supplement included.
Value of the Supplement	If a plan provides a temporary supplement (as does the Fairfax employee plan), this is the present value of that benefit, without the value of cost-of-living increases.
Vale of C-O-L Provisions	This is the present value of future increases in benefit due to increases associated with a cost-of-living provision.
Total Value of Benefit	The sum of the above pieces, this represents the amount of money needed, invested at the discount rate to provide the benefits noted, including the supplement and cost-of-living increases.
Value of Employee Contributions	This assumes employee contributions are accumulated at the discount rate (not the rate provided for in the plan) to retirement. It is the employee paid portion of the value.
Employer Provided Value of Benefit	This is the difference between the Total Value and the Value of Employee Contributions. It represents the portion of the benefit provided by the employer.

Appendix C – Numerical Results for Retirement Income Plans

Combination	$65,000 On Page	$35,000 On Page
61/21	5	8
63/18	11	14
55/25	17	20
57/23	23	26
65/25	29	32

Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 61/21/$65,000

Reference Employee	
Age	61
Past Service	21
Retirement Age	61
Base Salary	65,000
Total Salary	65,000

Economic Assumptions	
Discount rate - Pre Retirement - DB	7.50%
DC Investment Return	7.50%
Salary Scale	4.00%
Inflation	3.00%
Lump Sum Conversions	7.50%

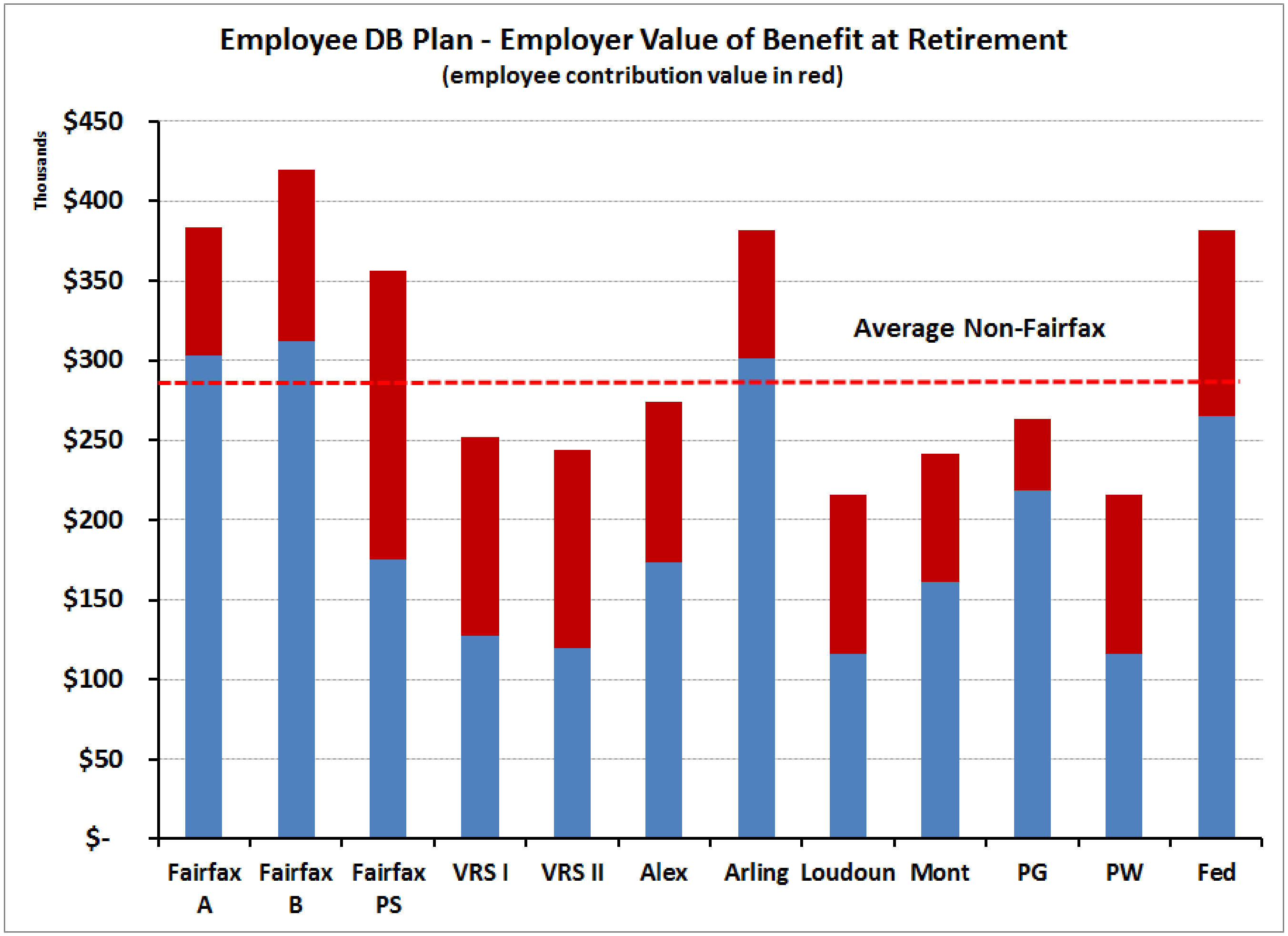
Results

	Fairfax A	Fairfax B	Fairfax Schools**	VRS Pre 7/1/10^	VRS Post 7/1/10^	Alexandria **	Arlington *	Loudoun **	Montgomery	Prince Georges ***	Prince William **	Federal
Basic Benefit	24,346	27,051	27,472	16,966	16,330	22,569	22,324	16,966	Def Cont	23,007	16,966	13,132
Value of Basic Benefit	251,352	279,280	283,618	210,682	204,117	233,001	314,964	175,160	241,402	237,523	175,160	336,741
Value of the Supplement	55,818	55,818	-	-	-	-	-	-	-	-	-	13,183
Value of C-O-L Provisions	76,433	84,573	72,647	41,033	39,495	41,033	67,180	41,033	-	26,093	41,033	31,759
Total Value of Benefit	383,602	419,671	356,265	251,714	243,612	274,033	382,145	216,193	241,402	263,617	216,193	381,684
Value of Employee Contributions	80,467	107,223	181,052	124,266	124,266	100,584	80,467	100,584	80,467	45,191	100,584	116,678
Employer Provided Value of Benefit	303,135	312,448	175,213	127,449	119,347	173,449	301,677	115,608	160,935	218,426	115,608	265,006

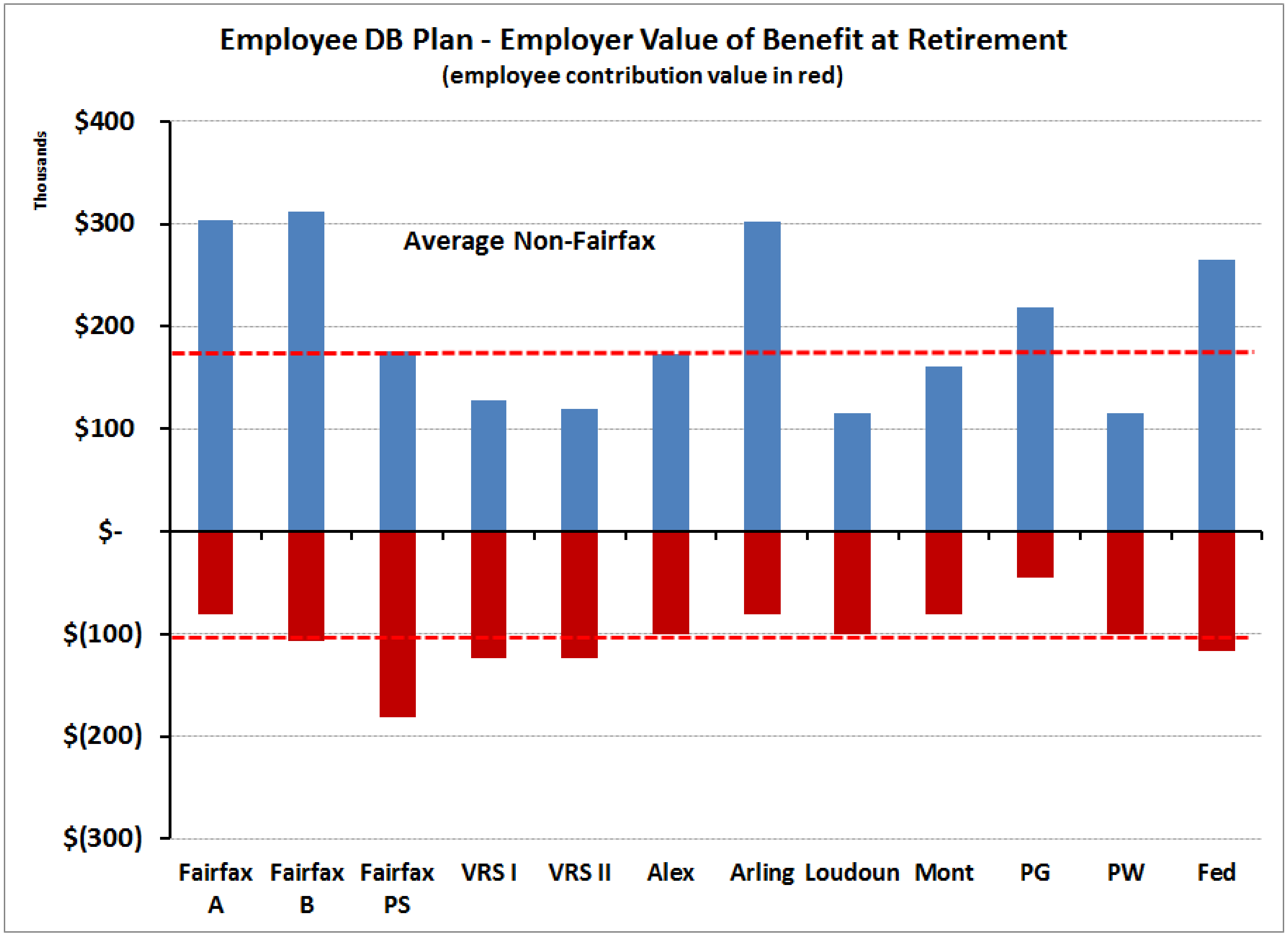
* Note: the Arlington Value of Basic Benefit includes the value of a 4.2% defined contribution benefit.
** Pre-7/1/10 VRS Benefit used - without 403(b)
*** Employee contributions for supplement assumed to be 1/3 of supplement value (PG)
^ VRS includes the 403b employer and employee contributions

Non-Fairfax group	
Average employer value	177,272
Average employee contribution	105,414
Average total Value	282,686

Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 61/21/$65,000



Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 61/21/$65,000



Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 61/21/$35,000

Reference Employee	
Age	61
Past Service	21
Retirement Age	61
Base Salary	35,000
Total Salary	35,000

Economic Assumptions	
Discount rate - Pre Retirement - DB	7.50%
DC Investment Return	7.50%
Salary Scale	4.00%
Inflation	3.00%
Lump Sum Conversions	7.50%

Results

	Fairfax A	Fairfax B	Fairfax Schools**	VRS Pre 7/1/10^	VRS Post 7/1/10^	Alexandria **	Arlington *	Loudoun **	Montgomery	Prince Georges ***	Prince William **	Federal
Basic Benefit	13,110	14,566	14,792	9,136	8,793	12,152	12,021	9,136	Def Cont	12,388	9,136	7,071
Value of Basic Benefit	135,343	150,381	152,717	129,839	126,304	125,462	169,596	94,317	129,986	127,897	94,317	181,322
Value of the Supplement	30,056	30,056	-	-	-	-	-	-	-	-	-	8,948
Value of C-O-L Provisions	41,156	45,539	39,118	22,095	21,267	22,095	36,174	22,095	-	14,050	22,095	17,101
Total Value of Benefit	206,555	225,977	191,835	151,933	147,571	147,556	205,770	116,411	129,986	141,947	116,411	207,371
Value of Employee Contributions	43,329	57,735	97,489	77,842	77,842	54,161	43,329	54,161	43,329	24,334	54,161	62,827
Employer Provided Value of Benefit	163,226	168,241	94,346	74,091	69,729	93,396	162,442	62,251	86,657	117,614	62,251	144,545

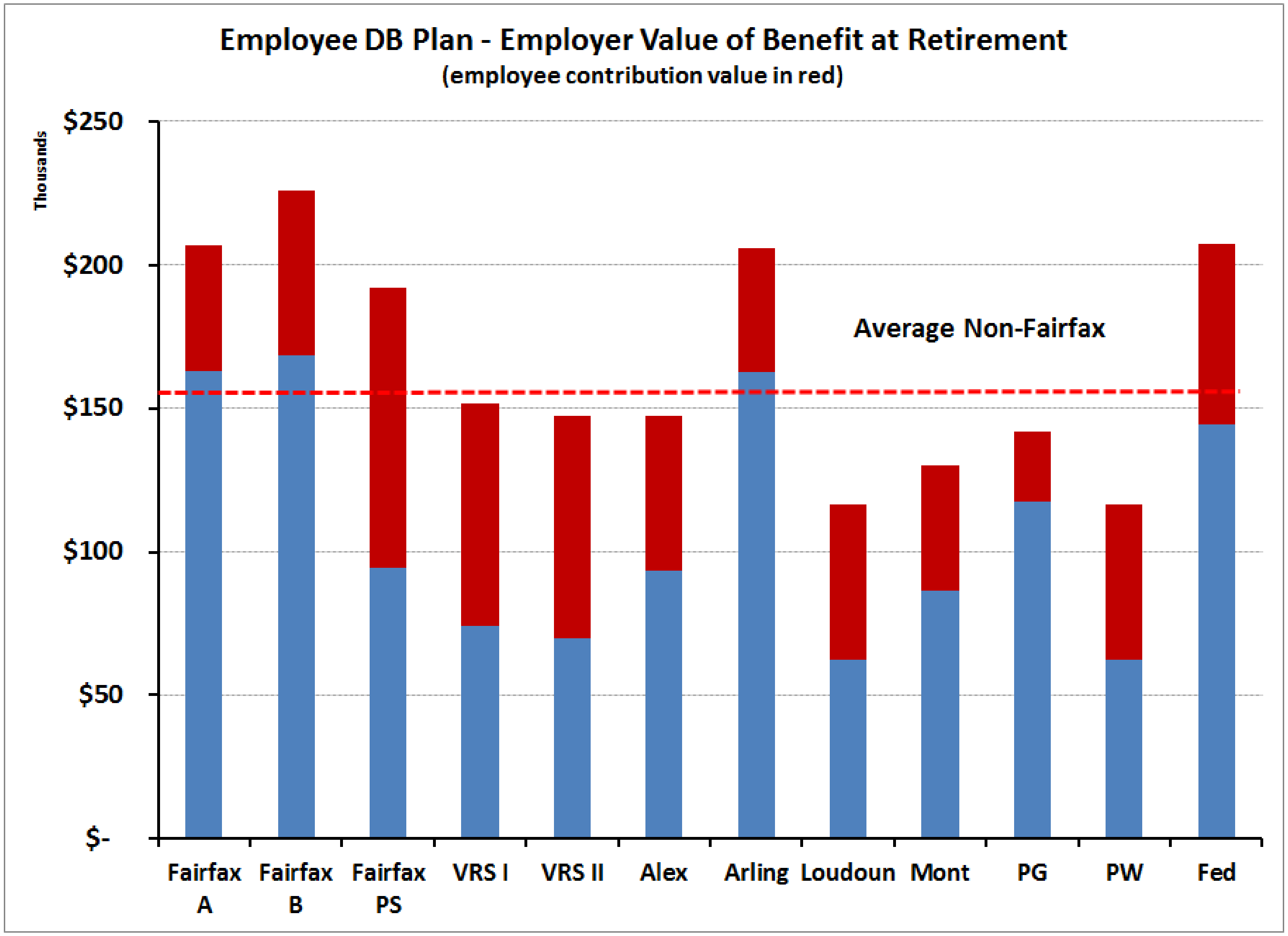
* Note: the Arlington Value of Basic Benefit includes the value of a 4.2% defined contribution benefit.
** Pre-7/1/10 VRS Benefit used - without 403(b)
*** Employee contributions for supplement assumed to be 1/3 of supplement value (PG)
^ VRS includes the 403b employer and employee contributions

Non-Fairfax group	
Average employer value	96,732
Average employee contribution	58,947
Average total Value	155,679

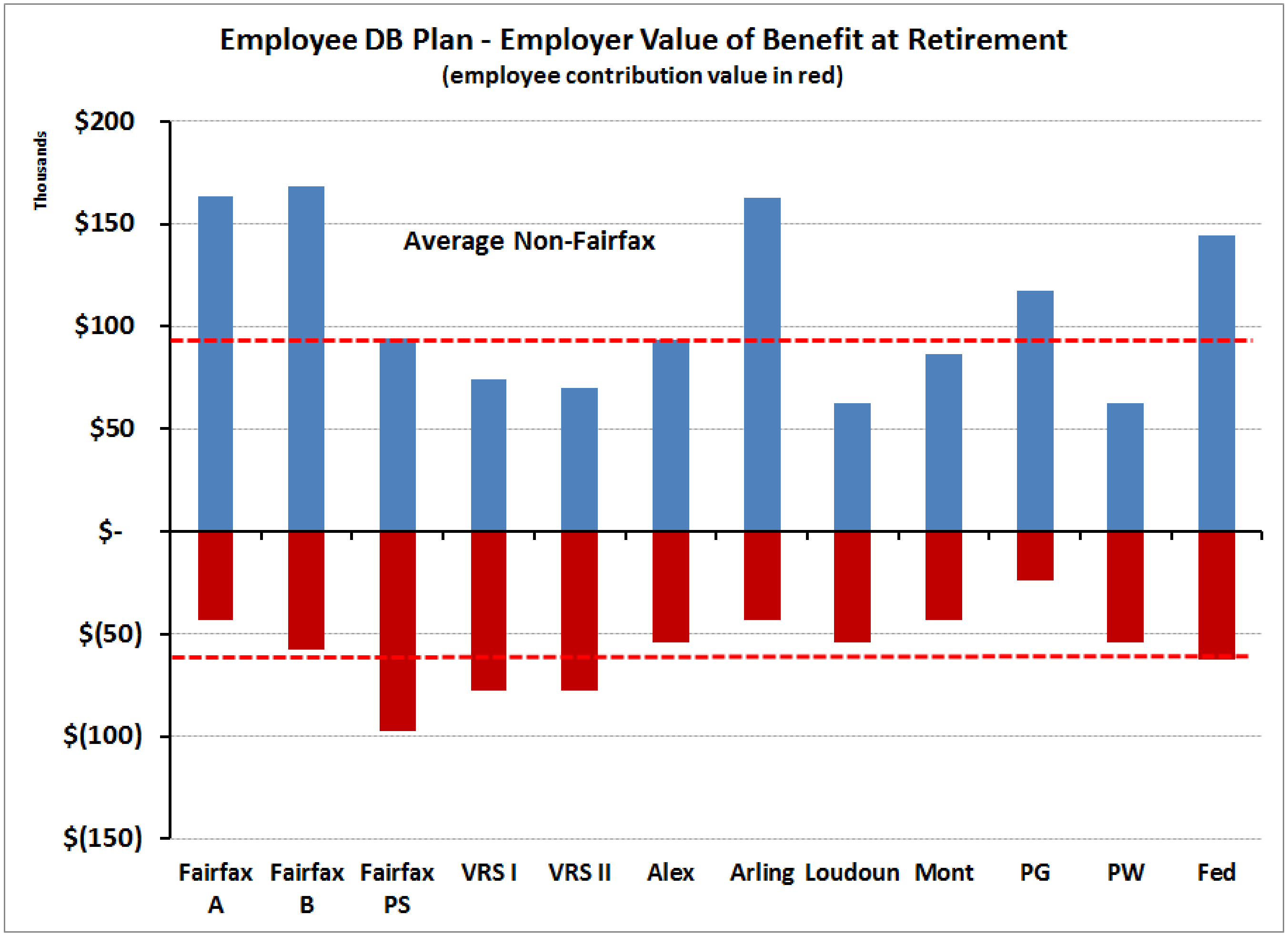
prm CONSULTING GROUP

AON Hewitt

Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 61/21/$35,000



Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 61/21/$35,000



Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 63/18/$65,000

Reference Employee	
Age	63
Past Service	18
Retirement Age	63
Base Salary	65,000
Total Salary	65,000

Economic Assumptions	
Discount rate - Pre Retirement - DB	7.50%
DC Investment Return	7.50%
Salary Scale	4.00%
Inflation	3.00%
Lump Sum Conversions	7.50%

Results

	Fairfax A	Fairfax B	Fairfax Schools**	VRS Pre 7/1/10^	VRS Post 7/1/10^	Alexandria **	Arlington *	Loudoun **	Montgomery	Prince Georges ***	Prince William **	Federal
Basic Benefit	20,868	23,187	25,843	16,839	15,103	20,740	19,135	16,839	Def Cont	20,260	16,839	11,256
Value of Basic Benefit	207,516	230,573	256,988	194,096	187,821	206,244	258,827	167,445	195,852	201,472	167,445	275,139
Value of the Supplement	30,932	30,932	-	-	-	-	-	-	-	-	-	-
Value of C-O-L Provisions	57,856	64,186	61,605	37,022	35,635	37,022	52,238	37,022	-	21,441	37,022	24,748
Total Value of Benefit	296,304	325,691	318,593	231,119	223,456	243,267	311,065	204,468	195,852	222,913	204,468	299,886
Value of Employee Contributions	65,284	86,991	146,889	99,372	99,372	81,605	65,284	81,605	65,284	37,310	81,605	94,662
Employer Provided Value of Benefit	231,020	238,700	171,704	131,746	124,084	161,662	245,781	122,863	130,568	185,604	122,863	205,225

* Note: the Arlington Value of Basic Benefit includes the value of a 4.2% defined contribution benefit.
** Pre-7/1/10 VRS Benefit used - without 403(b)
*** Employee contributions for supplement assumed to be 1/3 of supplement value (PG)
^ VRS includes the 403b employer and employee contributions

Non-Fairfax group	
Average employer value	160,210
Average employee contribution	85,299
Average total Value	245,509

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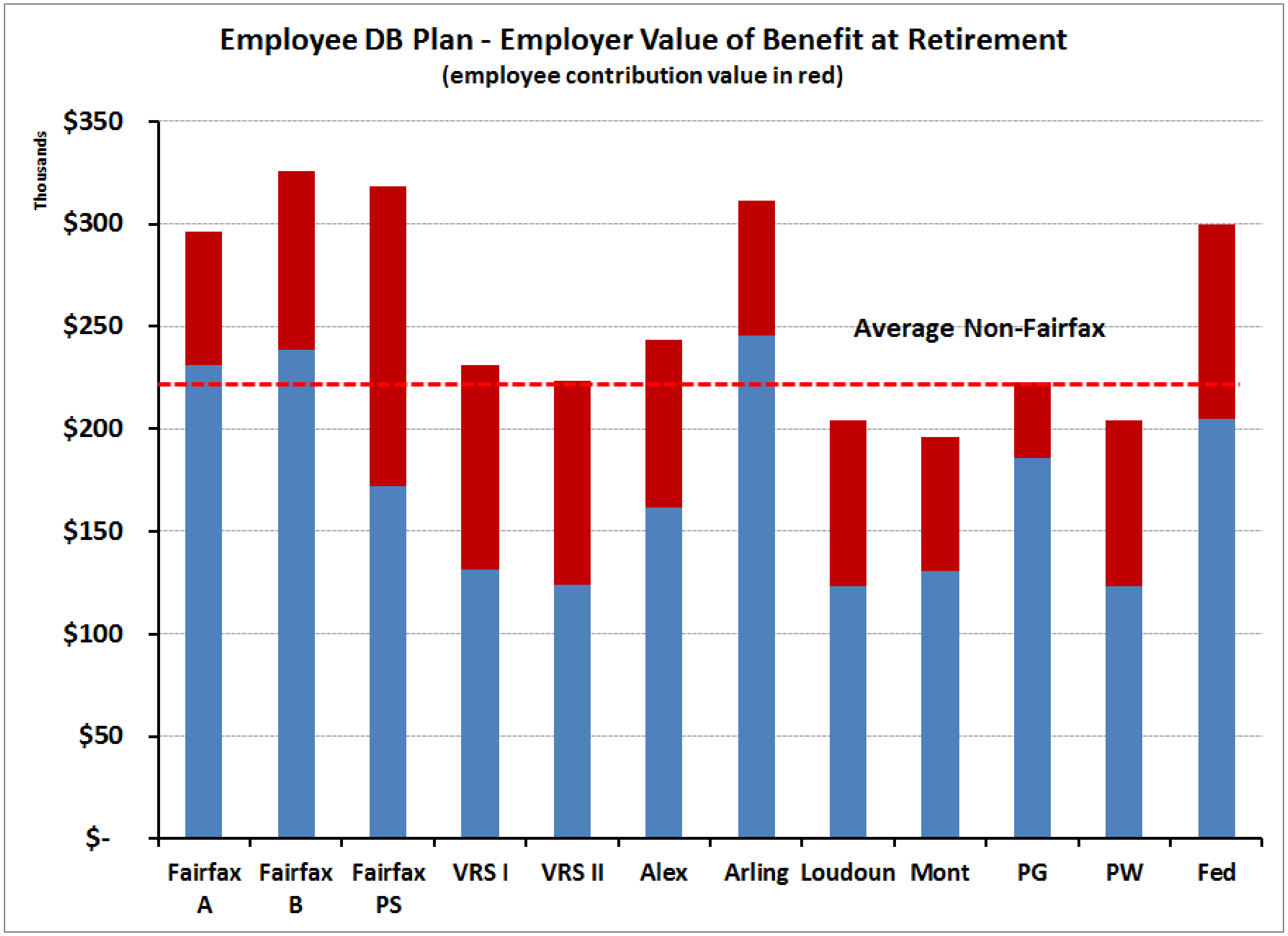
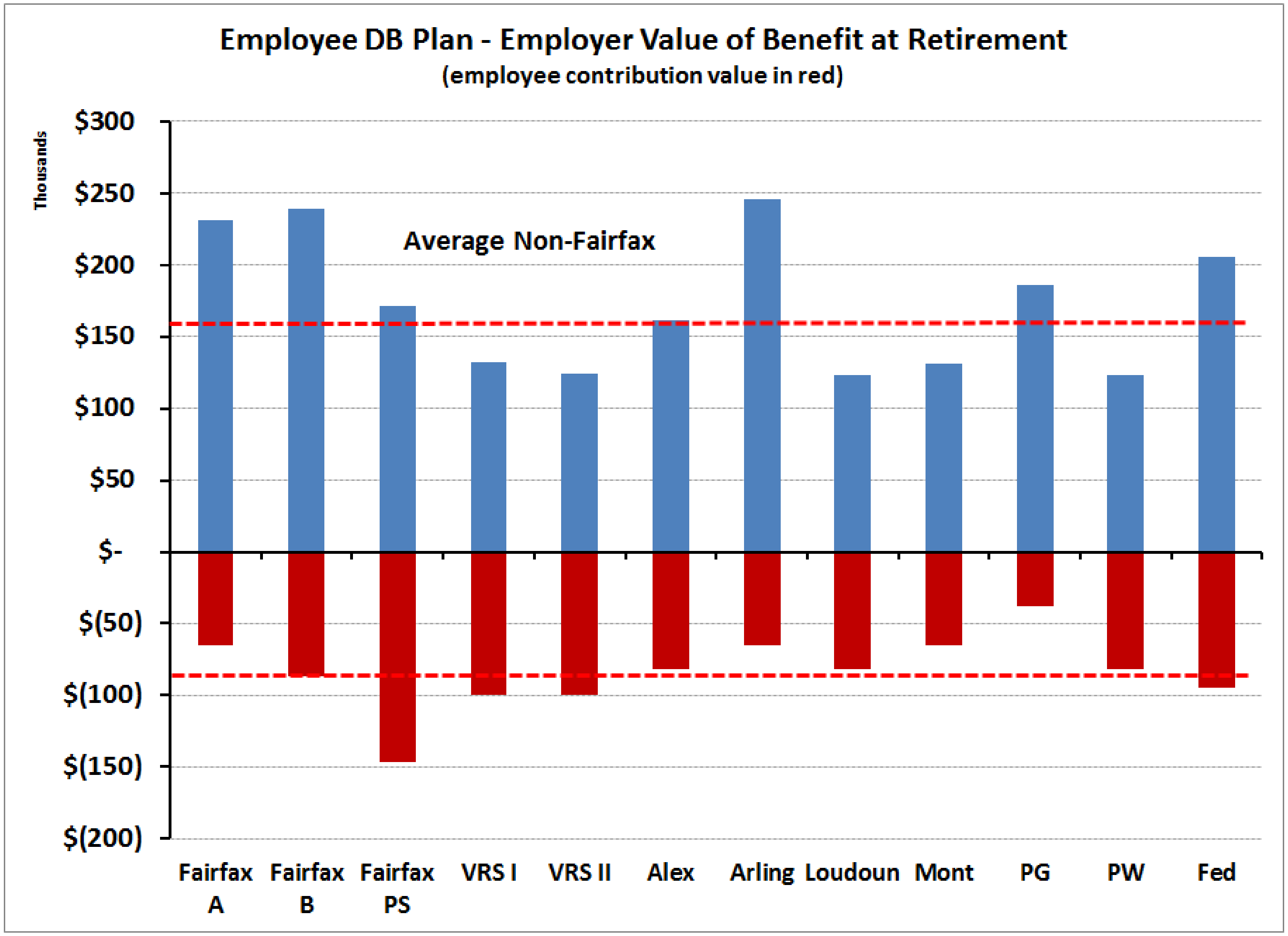
Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 63/18/$65,000



Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 63/18/$65,000



Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 63/18/$35,000

Reference Employee	
Age	63
Past Service	18
Retirement Age	63
Base Salary	35,000
Total Salary	35,000

Economic Assumptions	
Discount rate - Pre Retirement - DB	7.50%
DC Investment Return	7.50%
Salary Scale	4.00%
Inflation	3.00%
Lump Sum Conversions	7.50%

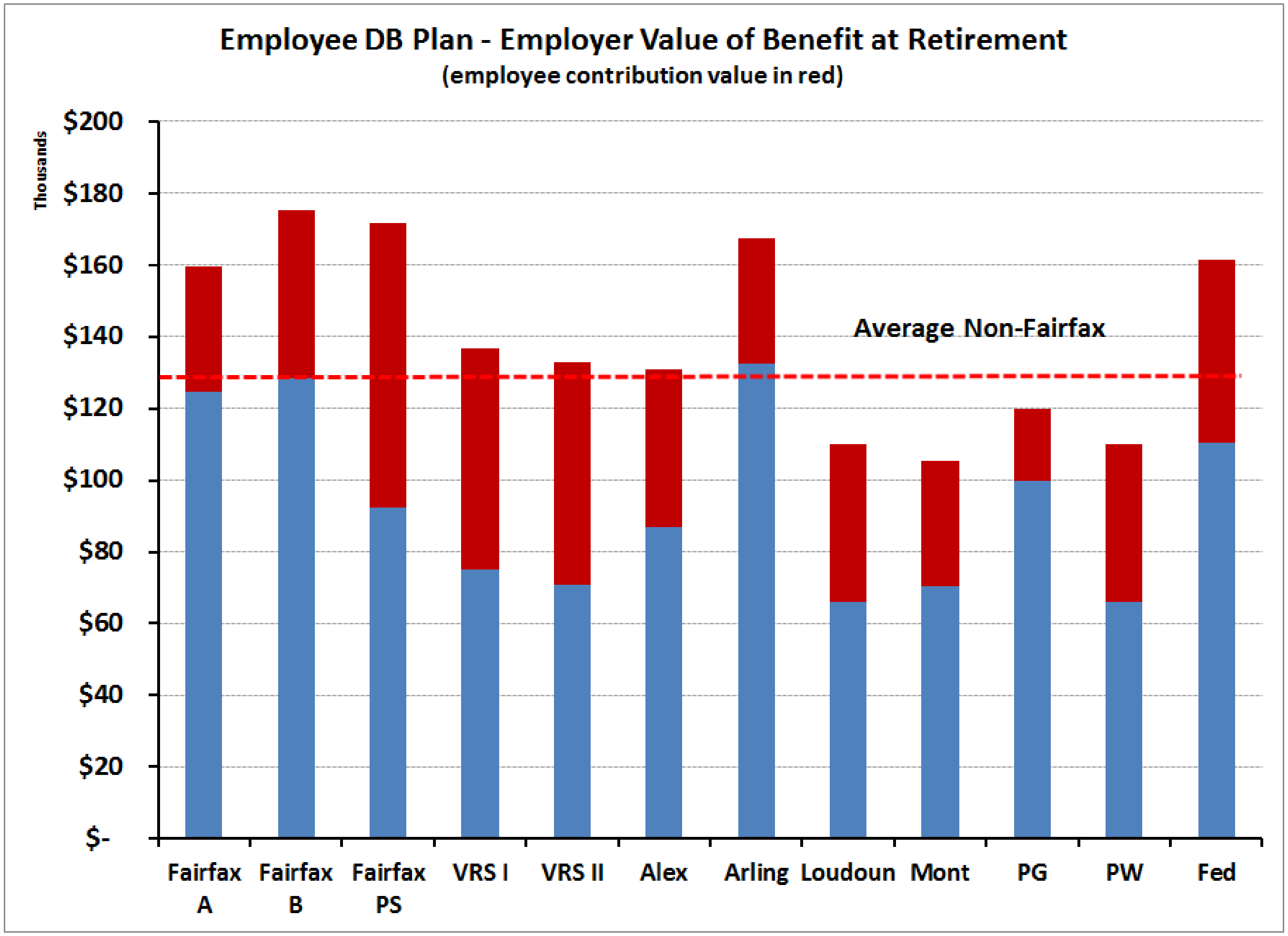
Results

	Fairfax A	Fairfax B	Fairfax Schools**	VRS Pre 7/1/10^	VRS Post 7/1/10^	Alexandria **	Arlington *	Loudoun **	Montgomery	Prince Georges ***	Prince William **	Federal
Basic Benefit	11,237	12,485	13,916	9,067	8,132	11,168	10,303	9,067	Def Cont	10,909	9,067	6,061
Value of Basic Benefit	111,739	124,155	138,378	116,814	113,435	111,055	139,368	90,163	105,459	108,485	90,163	148,152
Value of the Supplement	16,656	16,656	-	-	-	-	-	-	-	-	-	-
Value of C-O-L Provisions	31,153	34,561	33,172	19,935	19,188	19,935	28,128	19,935	-	11,545	19,935	13,326
Total Value of Benefit	159,548	175,372	171,550	136,749	132,623	130,990	167,497	110,098	105,459	120,030	110,098	161,477
Value of Employee Contributions	35,153	46,841	79,094	61,709	61,709	43,941	35,153	43,941	35,153	20,090	43,941	50,972
Employer Provided Value of Benefit	124,395	128,531	92,456	75,040	70,914	87,049	132,344	66,157	70,306	99,940	66,157	110,506

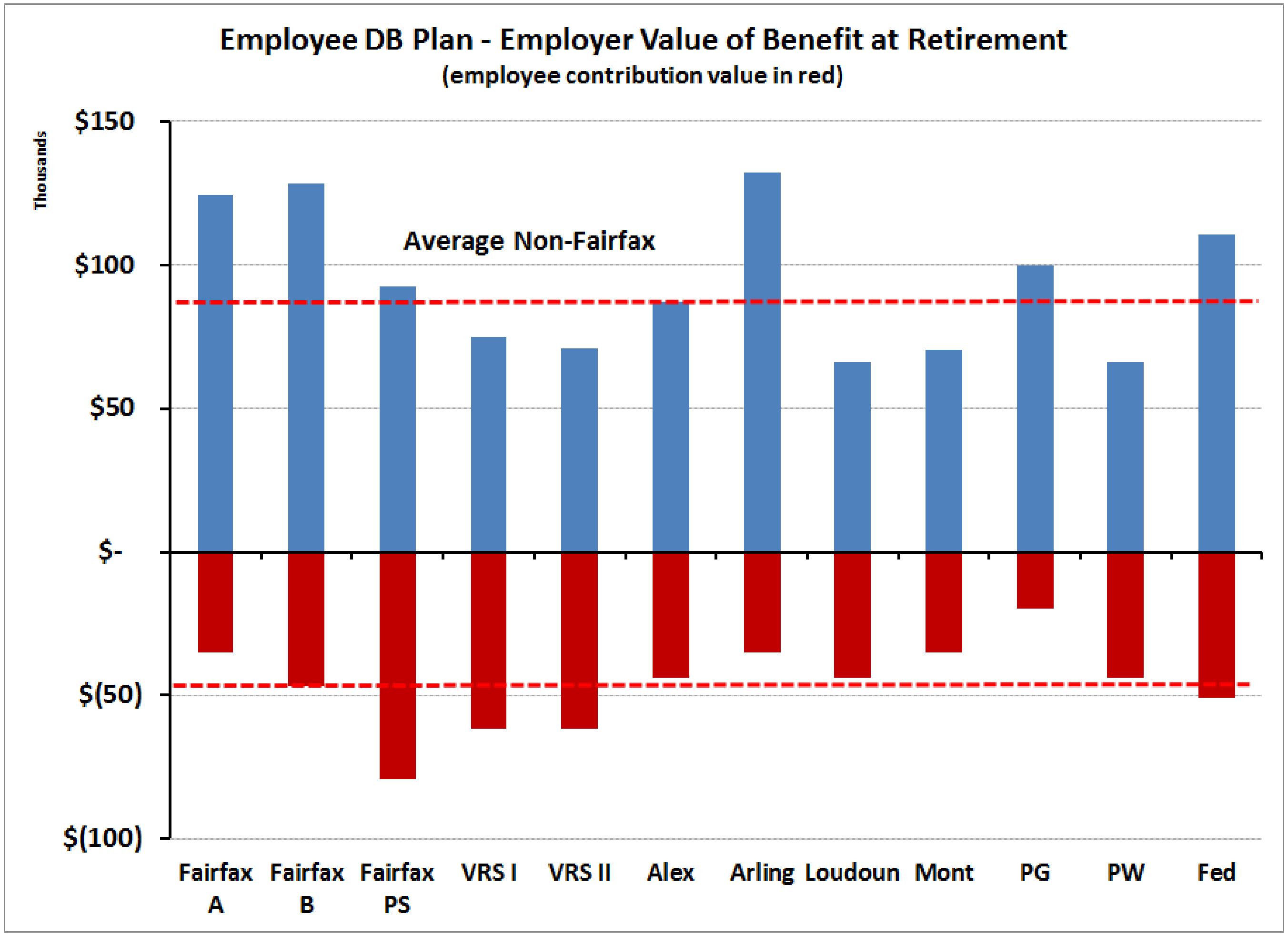
* Note: the Arlington Value of Basic Benefit includes the value of a 4.2% defined contribution benefit.
** Pre-7/1/10 VRS Benefit used - without 403(b)
*** Employee contributions for supplement assumed to be 1/3 of supplement value (PG)
^ VRS includes the 403b employer and employee contributions

Non-Fairfax group	
Average employer value	87,087
Average employee contribution	47,570
Average total Value	134,657

Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 63/18/$35,000



Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 63/18/$35,000



Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 55/25/$65,000

Reference Employee	
Age	55
Past Service	25
Retirement Age	55
Base Salary	65,000
Total Salary	65,000

Economic Assumptions	
Discount rate - Pre Retirement - DB	7.50%
DC Investment Return	7.50%
Salary Scale	4.00%
Inflation	3.00%
Lump Sum Conversions	7.50%

Results

	Fairfax A	Fairfax B	Fairfax Schools**	VRS Pre 7/1/10^	VRS Post 7/1/10^	Alexandria **	Arlington *	Loudoun **	Montgomery	Prince Georges ***	Prince William **	Federal
Basic Benefit	28,984	32,204	18,603	18,603	-	26,941	26,576	18,603	Def Cont	22,887	18,603	9,067
Value of Basic Benefit	327,020	363,355	298,982	260,679	252,813	303,976	408,222	209,899	309,617	258,229	209,899	360,318
Value of the Supplement	121,364	121,364	-	-	-	-	-	-	-	-	-	-
Value of C-O-L Provisions	128,772	141,164	83,883	57,166	55,024	57,166	102,264	57,166	-	24,891	57,166	27,863
Total Value of Benefit	577,156	625,883	382,865	317,845	307,837	361,143	510,486	267,066	309,617	283,120	267,066	388,181
Value of Employee Contributions	103,206	137,522	232,213	162,860	162,860	129,007	103,206	129,007	103,206	58,795	129,007	149,648
Employer Provided Value of Benefit	473,950	488,362	150,652	154,985	144,977	232,136	407,281	138,058	206,412	224,325	138,058	238,533

* Note: the Arlington Value of Basic Benefit includes the value of a 4.2% defined contribution benefit.
** Pre-7/1/10 VRS Benefit used - without 403(b)
*** Employee contributions for supplement assumed to be 1/3 of supplement value (PG)
^ VRS includes the 403b employer and employee contributions

Non-Fairfax group	
Average employer value	203,542
Average employee contribution	135,981
Average total Value	339,523

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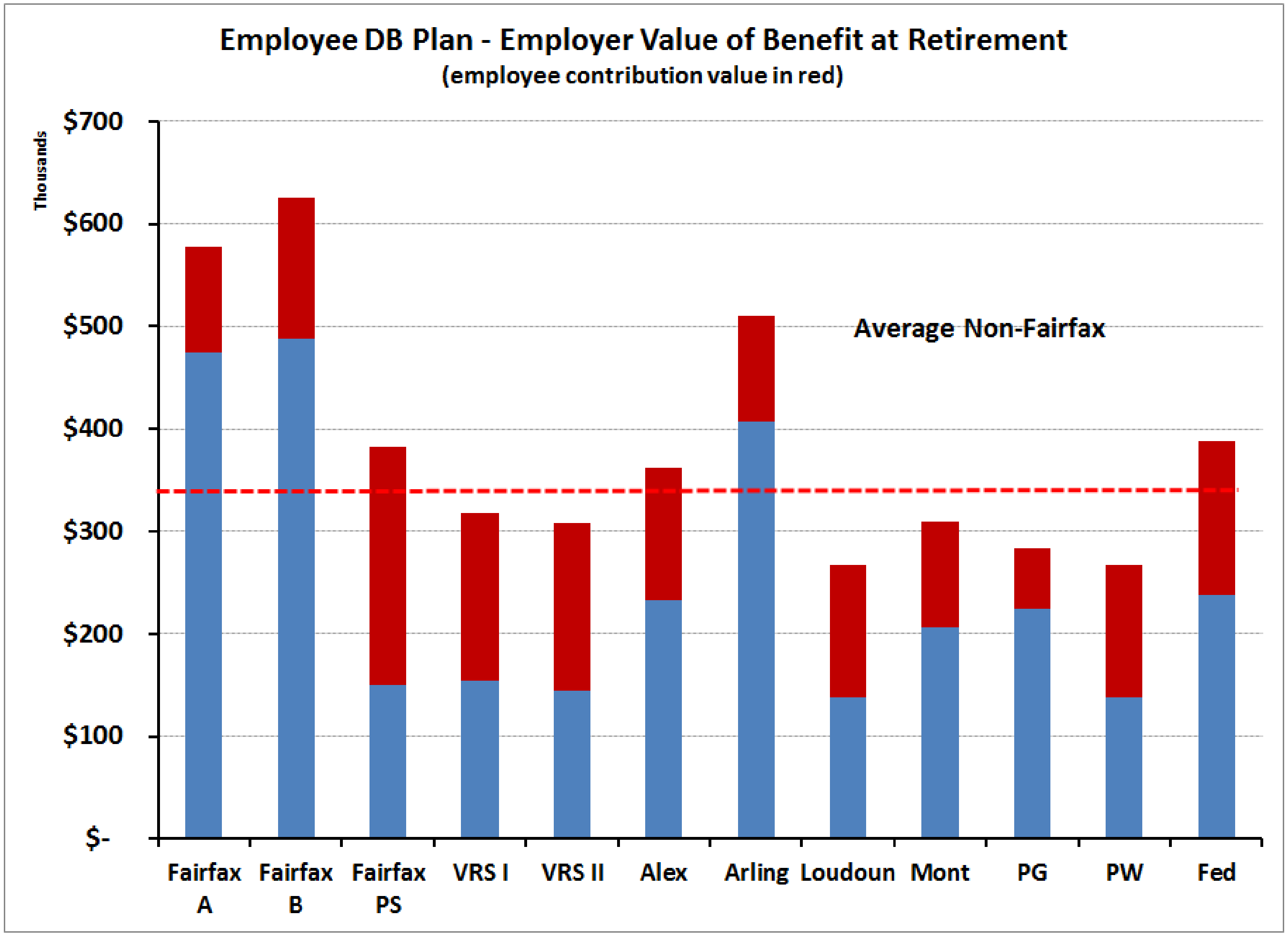
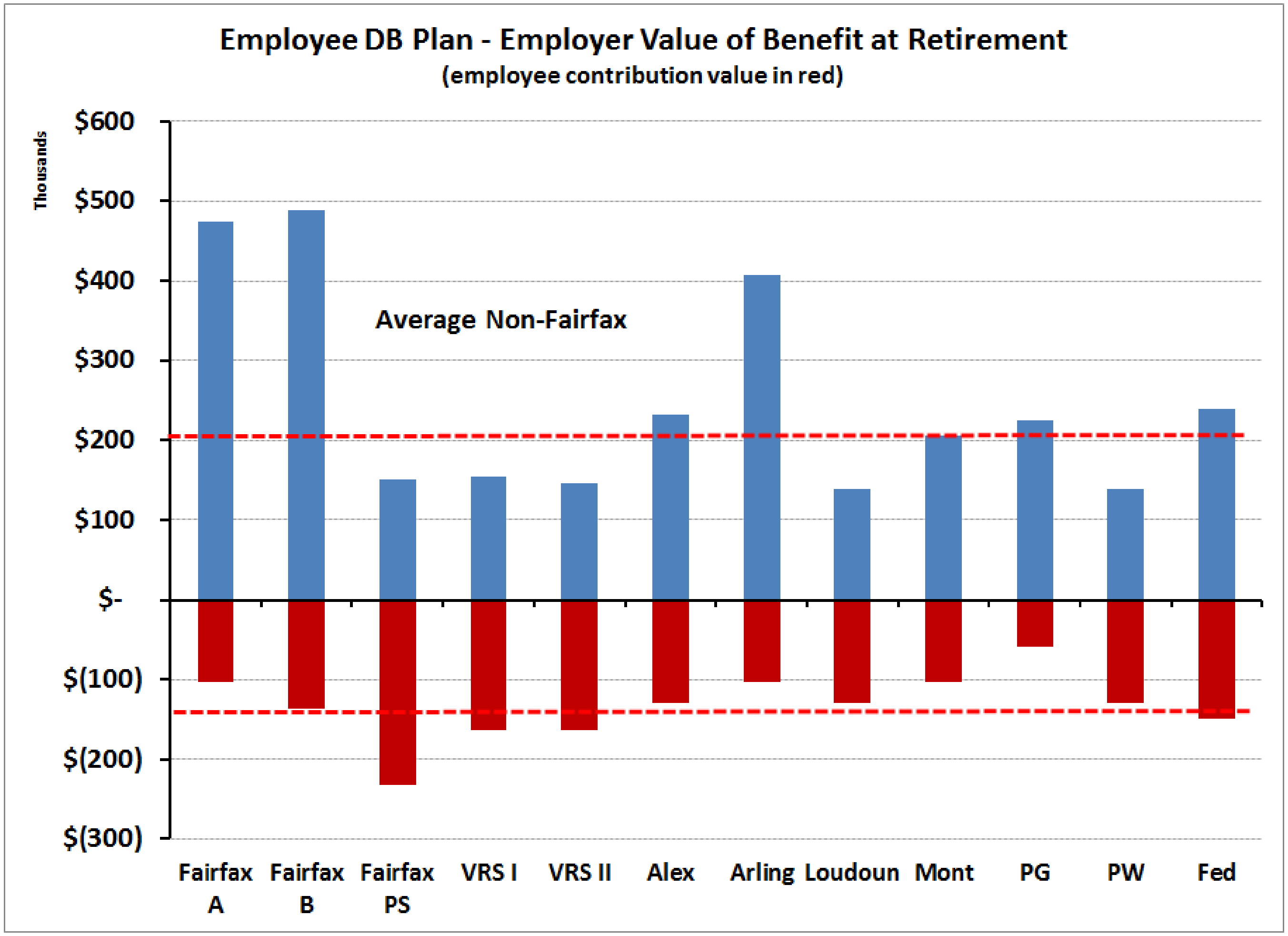
Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 55/25/$65,000



Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 55/25/$65,000



Appendix C – Numerical Results for Retirement Income Plans Employee Plan 55/25/$35,000

Reference Employee	
Age	55
Past Service	25
Retirement Age	55
Base Salary	35,000
Total Salary	35,000

Economic Assumptions	
Discount rate - Pre Retirement - DB	7.50%
DC Investment Return	7.50%
Salary Scale	4.00%
Inflation	3.00%
Lump Sum Conversions	7.50%

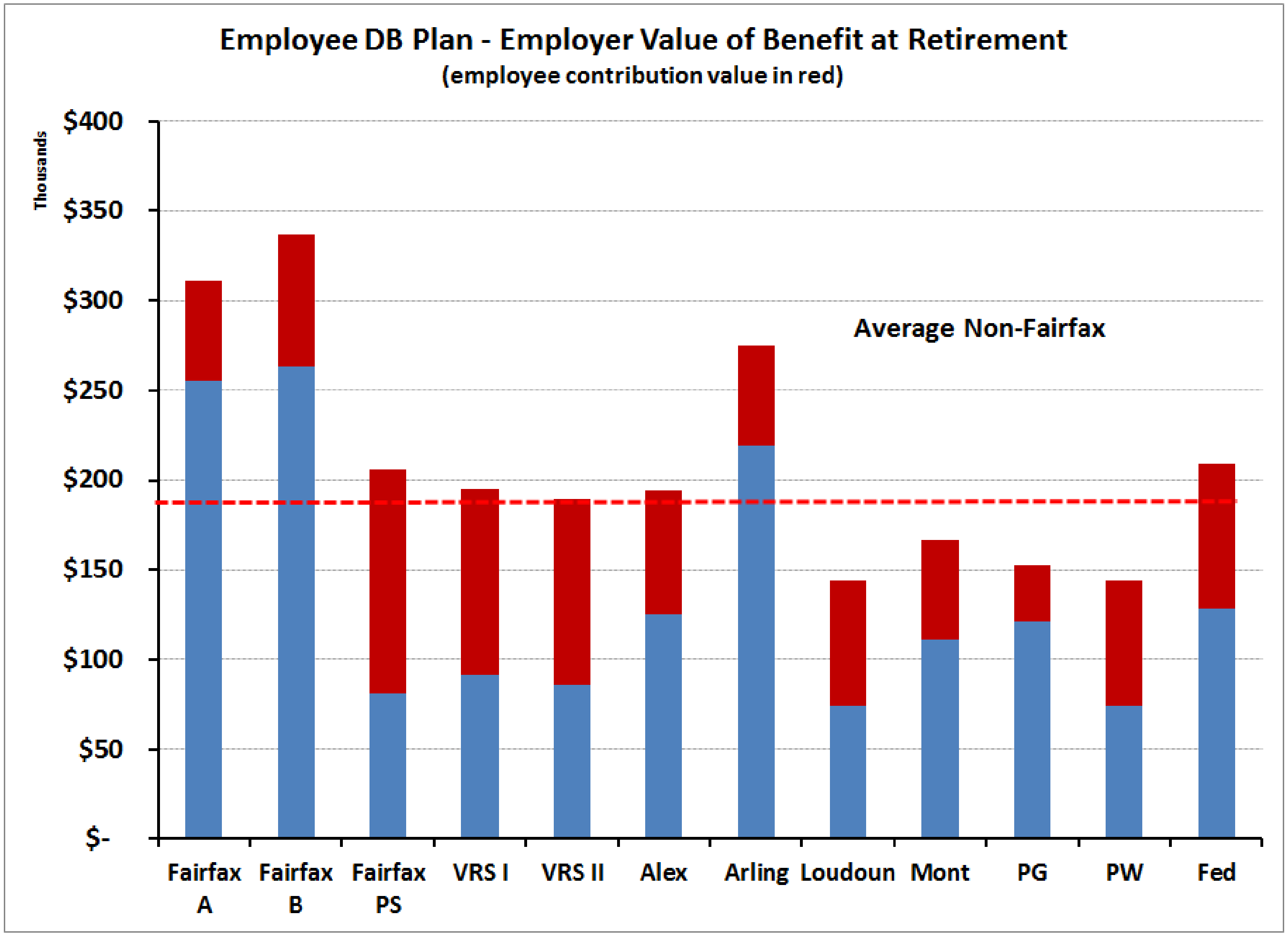
Results

	Fairfax A	Fairfax B	Fairfax Schools**	VRS Pre 7/1/10^	VRS Post 7/1/10^	Alexandria **	Arlington *	Loudoun **	Montgomery	Prince Georges ***	Prince William **	Federal
Basic Benefit	15,607	17,341	10,017	10,017	-	14,507	14,310	10,017	Def Cont	12,324	10,017	4,882
Value of Basic Benefit	176,087	195,653	160,990	163,802	159,567	163,680	219,812	113,023	166,717	139,046	113,023	194,018
Value of the Supplement	65,350	65,350	-	-	-	-	-	-	-	-	-	-
Value of C-O-L Provisions	69,339	76,011	45,168	30,782	29,628	30,782	55,065	30,782	-	13,403	30,782	15,003
Total Value of Benefit	310,776	337,014	206,158	194,584	189,195	194,462	274,877	143,805	166,717	152,449	143,805	209,021
Value of Employee Contributions	55,572	74,050	125,038	103,318	103,318	69,465	55,572	69,465	55,572	31,659	69,465	80,580
Employer Provided Value of Benefit	255,204	262,964	81,120	91,266	85,877	124,996	219,305	74,339	111,145	120,790	74,339	128,441

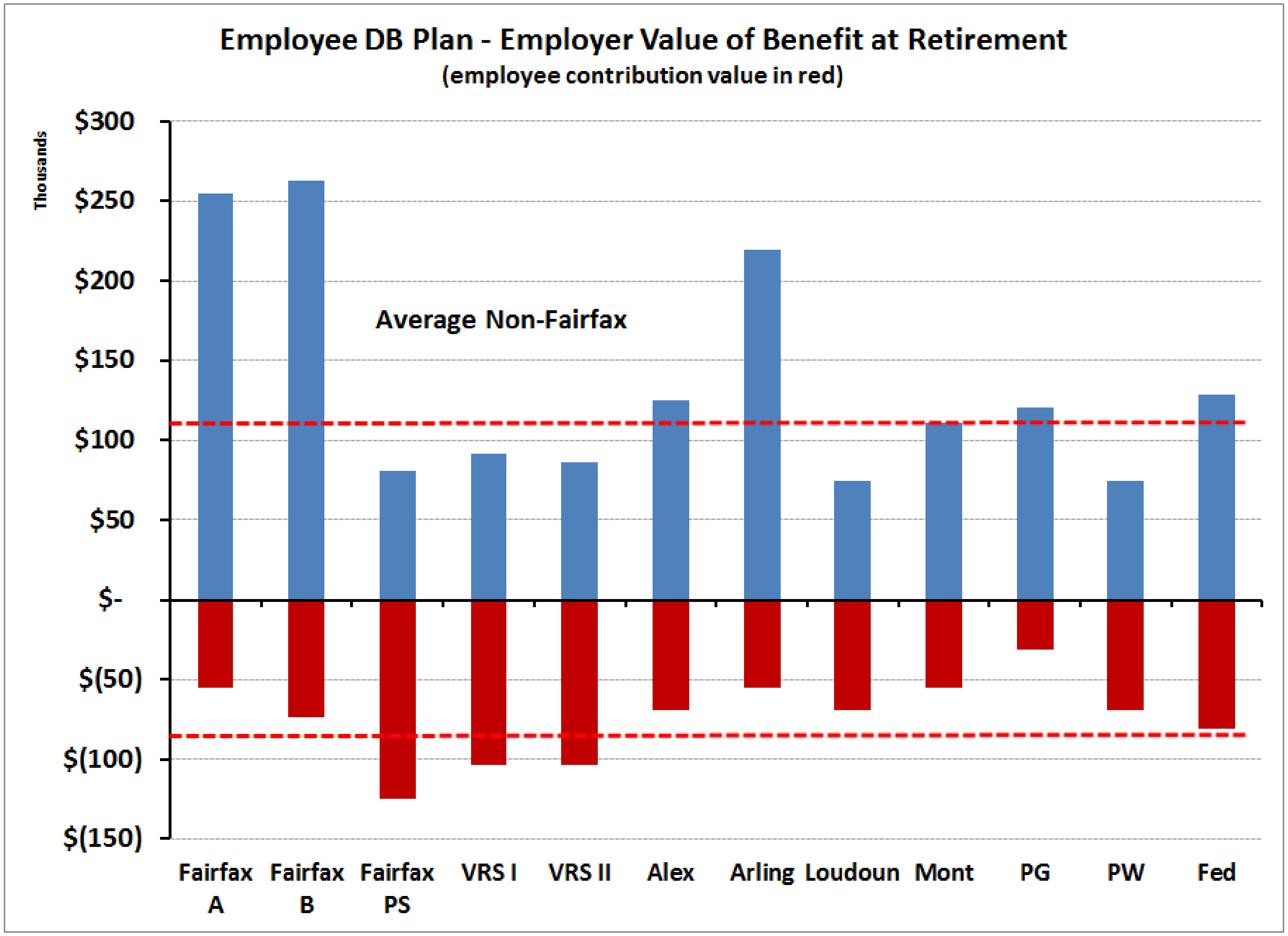
* Note: the Arlington Value of Basic Benefit includes the value of a 4.2% defined contribution benefit.
** Pre-7/1/10 VRS Benefit used - without 403(b)
*** Employee contributions for supplement assumed to be 1/3 of supplement value (PG)
^ VRS includes the 403b employer and employee contributions

Non-Fairfax group	
Average employer value	111,162
Average employee contribution	76,345
Average total Value	187,507

Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 55/25/$35,000



Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 55/25/$35,000



Appendix C – Numerical Results for Retirement Income Plans Employee Plan 57/23/$65,000

Reference Employee	
Age	57
Past Service	23
Retirement Age	57
Base Salary	65,000
Total Salary	65,000

Economic Assumptions	
Discount rate - Pre Retirement - DB	7.50%
DC Investment Return	7.50%
Salary Scale	4.00%
Inflation	3.00%
Lump Sum Conversions	7.50%

Results

	Fairfax A	Fairfax B	Fairfax Schools**	VRS Pre 7/1/10^	VRS Post 7/1/10^	Alexandria **	Arlington *	Loudoun **	Montgomery	Prince Georges ***	Prince William **	Federal
Basic Benefit	26,665	29,628	14,768	14,768	-	21,671	24,450	14,768	Def Cont	22,437	14,768	10,068
Value of Basic Benefit	293,194	325,771	258,007	204,979	198,894	238,287	364,873	162,379	274,381	246,700	162,379	339,350
Value of the Supplement	95,767	95,767	-	-	-	-	-	-	-	-	-	-
Value of C-O-L Provisions	105,887	116,468	70,888	42,208	40,627	42,208	87,322	42,208	-	25,536	42,208	28,775
Total Value of Benefit	494,847	538,005	328,895	247,187	239,520	280,495	452,196	204,588	274,381	272,236	204,588	368,125
Value of Employee Contributions	91,460	121,871	205,786	142,725	142,725	114,326	91,460	114,326	91,460	52,714	114,326	132,618
Employer Provided Value of Benefit	403,386	416,134	123,109	104,462	96,795	166,170	360,735	90,262	182,921	219,522	90,262	235,507

* Note: the Arlington Value of Basic Benefit includes the value of a 4.2% defined contribution benefit.
** Pre-7/1/10 VRS Benefit used - without 403(b)
*** Employee contributions for supplement assumed to be 1/3 of supplement value (PG)
^ VRS includes the 403b employer and employee contributions

Non-Fairfax group	
Average employer value	166,975
Average employee contribution	120,247
Average total Value	287,221

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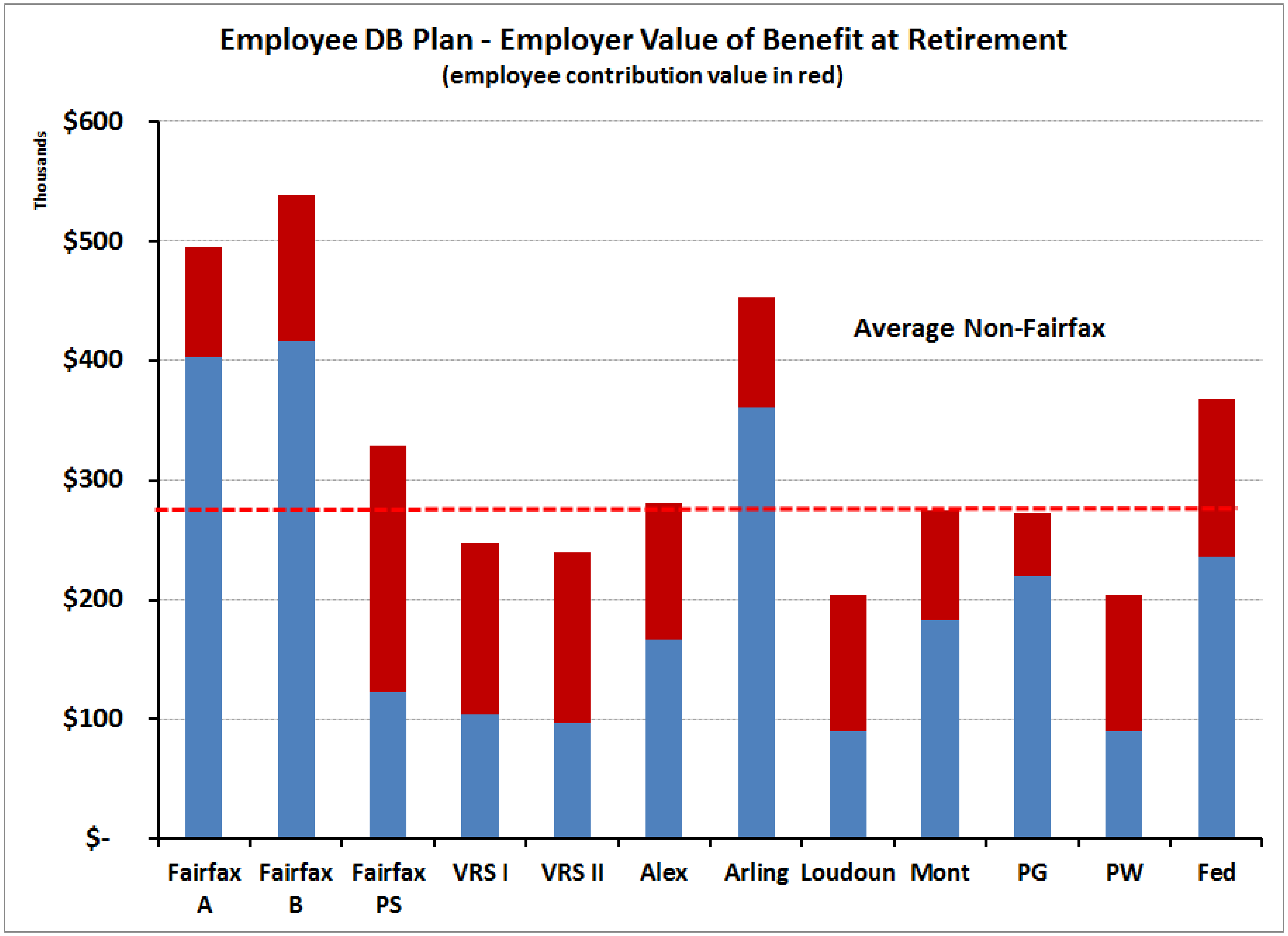
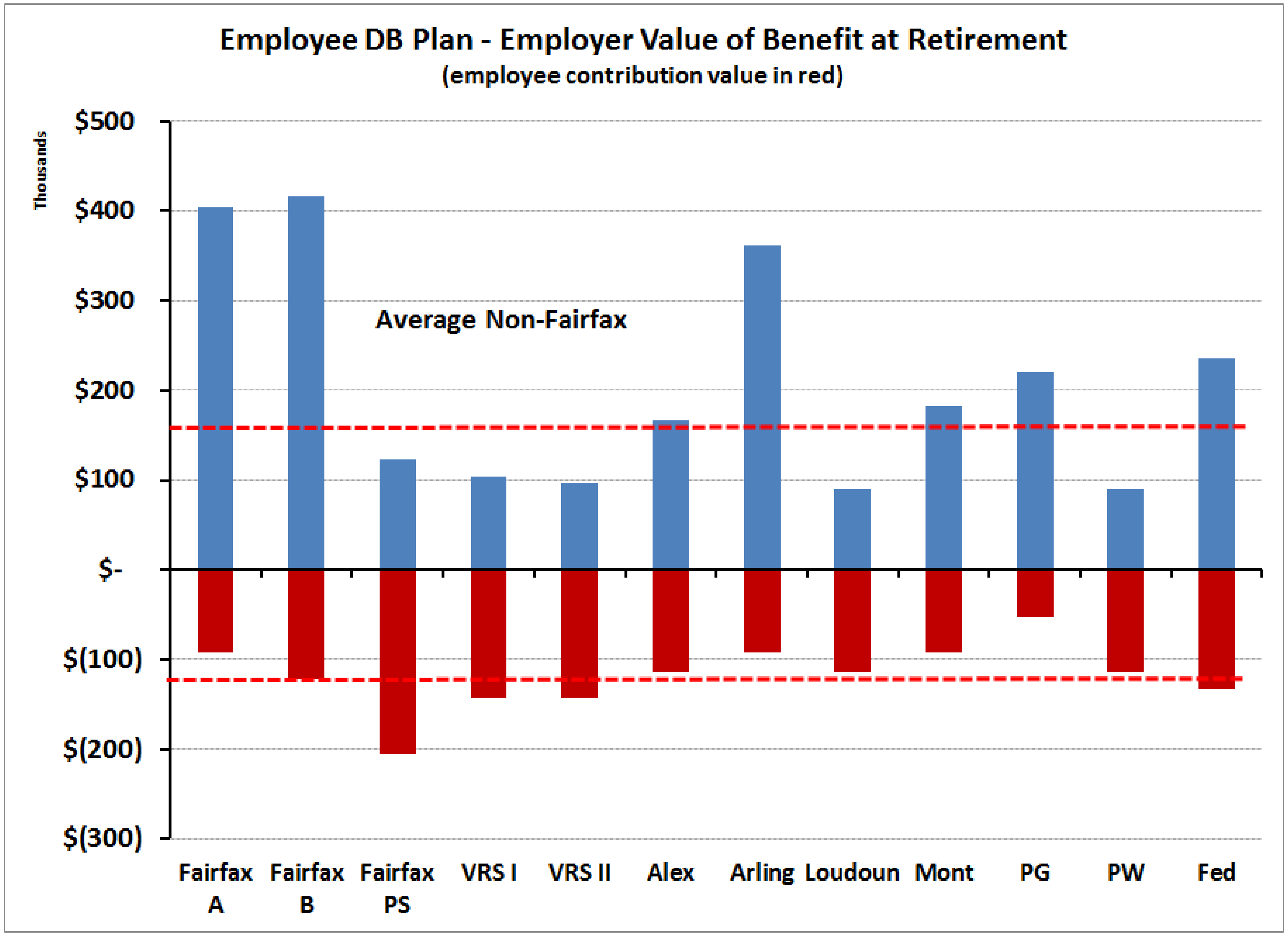
Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 57/23/$65,000



Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 57/23/$65,000



Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 57/23/$35,000

Reference Employee	
Age	57
Past Service	23
Retirement Age	57
Base Salary	35,000
Total Salary	35,000

Economic Assumptions	
Discount rate - Pre Retirement - DB	7.50%
DC Investment Return	7.50%
Salary Scale	4.00%
Inflation	3.00%
Lump Sum Conversions	7.50%

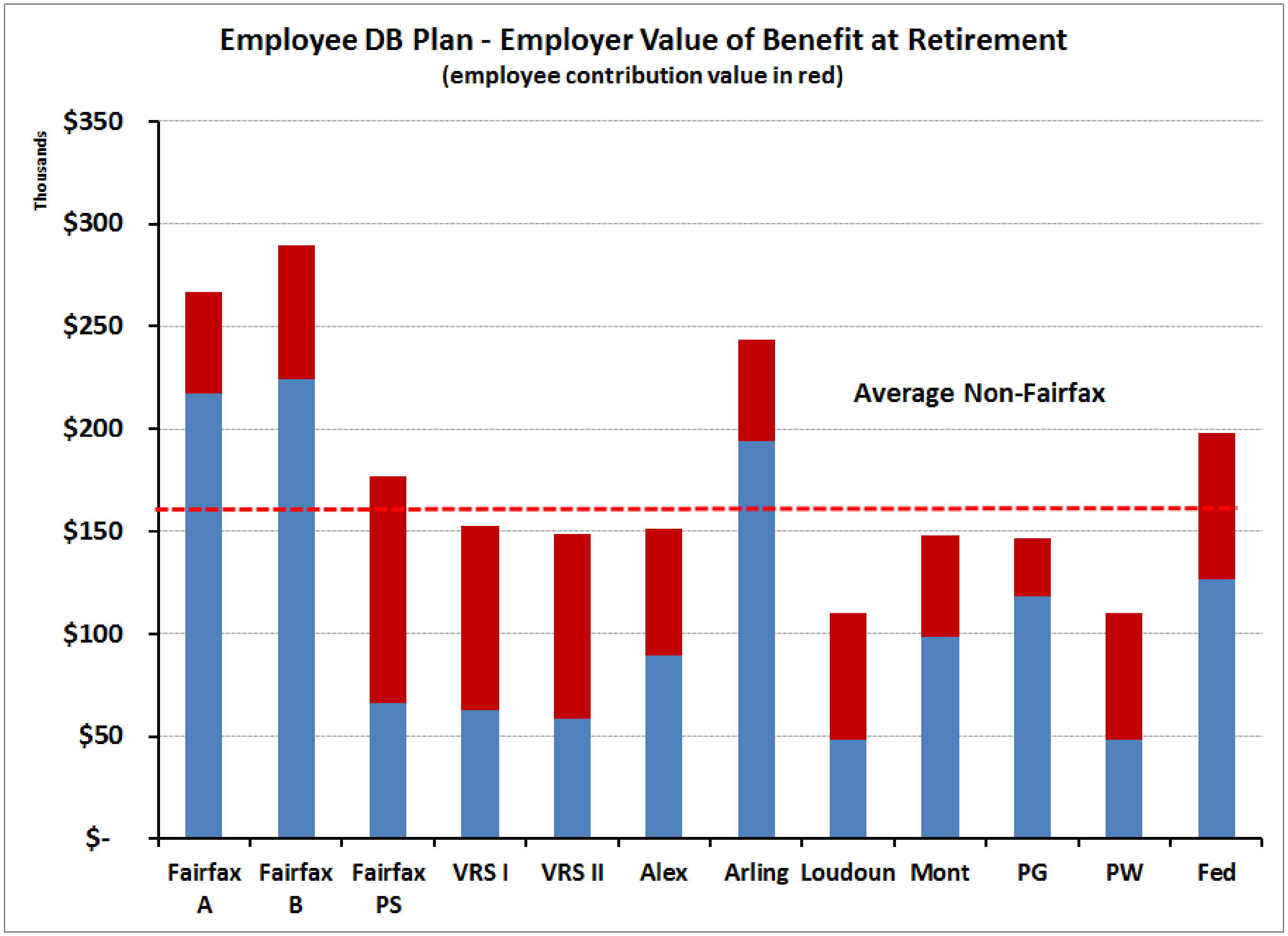
Results

	Fairfax A	Fairfax B	Fairfax Schools**	VRS Pre 7/1/10^	VRS Post 7/1/10^	Alexandria **	Arlington *	Loudoun **	Montgomery	Prince Georges ***	Prince William **	Federal
Basic Benefit	14,358	15,953	7,952	7,952	-	11,669	13,165	7,952	Def Cont	12,081	7,952	5,421
Value of Basic Benefit	157,873	175,415	138,927	130,035	126,758	128,308	196,470	87,435	147,744	132,839	87,435	182,727
Value of the Supplement	51,567	51,567	-	-	-	-	-	-	-	-	-	-
Value of C-O-L Provisions	57,016	62,714	38,170	22,728	21,876	22,728	47,020	22,728	-	13,750	22,728	15,494
Total Value of Benefit	266,456	289,695	177,097	152,762	148,634	151,036	243,490	110,163	147,744	146,589	110,163	198,221
Value of Employee Contributions	49,248	65,623	110,808	89,960	89,960	61,560	49,248	61,560	49,248	28,384	61,560	71,410
Employer Provided Value of Benefit	217,208	224,072	66,289	62,803	58,674	89,476	194,242	48,603	98,496	118,204	48,603	126,811

* Note: the Arlington Value of Basic Benefit includes the value of a 4.2% defined contribution benefit.
** Pre-7/1/10 VRS Benefit used - without 403(b)
*** Employee contributions for supplement assumed to be 1/3 of supplement value (PG)
^ VRS includes the 403b employer and employee contributions

Non-Fairfax group	
Average employer value	91,220
Average employee contribution	67,370
Average total Value	158,590

Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 57/23/$35,000



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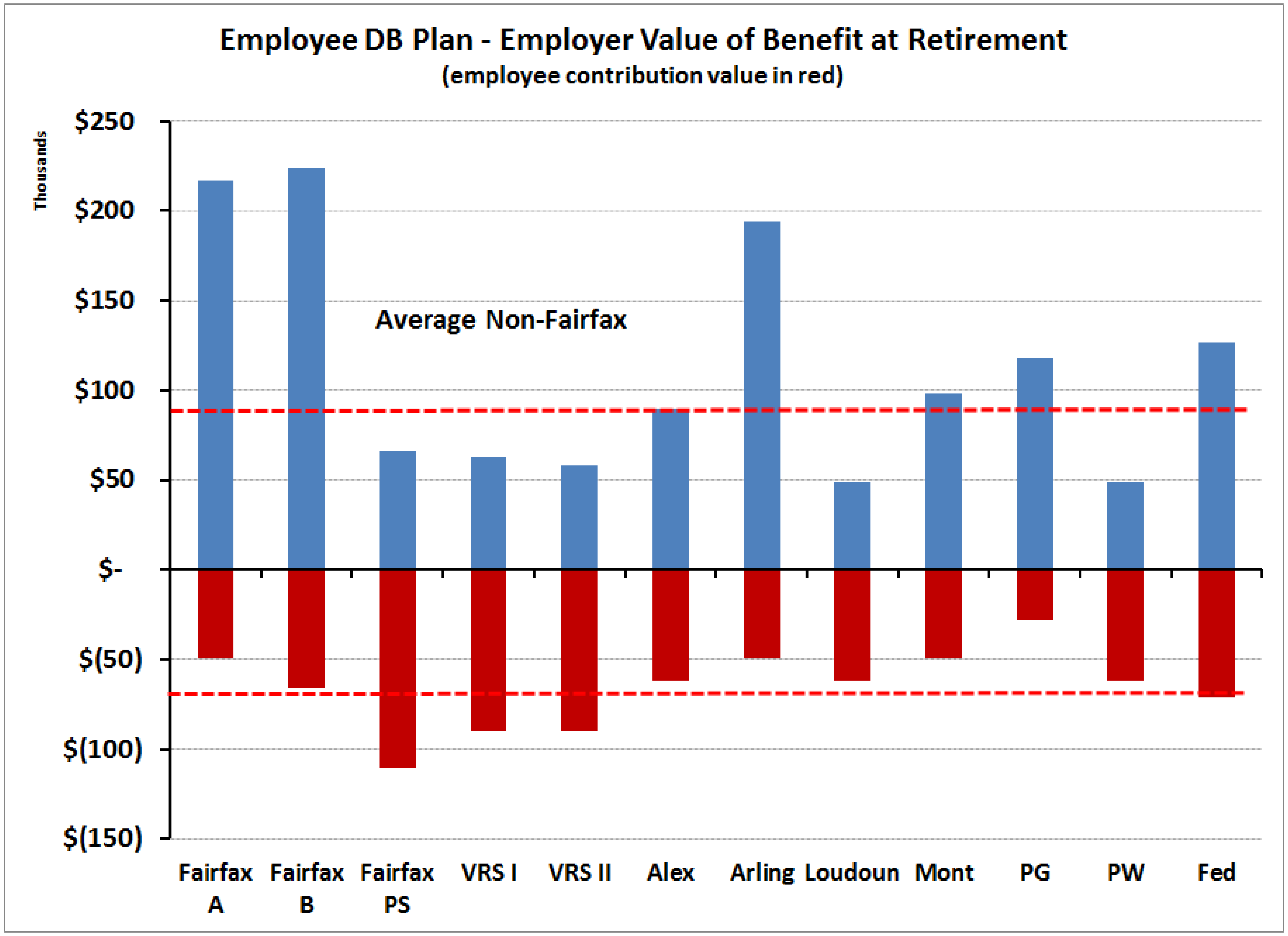
Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 57/23/$35,000



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Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 65/25/$65,000

Reference Employee	
Age	65
Past Service	25
Retirement Age	65
Base Salary	65,000
Total Salary	65,000

Economic Assumptions	
Discount rate - Pre Retirement - DB	7.50%
DC Investment Return	7.50%
Salary Scale	4.00%
Inflation	3.00%
Lump Sum Conversions	7.50%

Results

	Fairfax A	Fairfax B	Fairfax Schools**	VRS Pre 7/1/10^	VRS Post 7/1/10^	Alexandria **	Arlington *	Loudoun **	Montgomery	Prince Georges ***	Prince William **	Federal
Basic Benefit	28,984	32,204	39,083	26,576	25,580	34,914	26,576	26,576	Def Cont	28,139	26,576	17,196
Value of Basic Benefit	276,423	307,137	372,739	304,242	294,744	332,984	361,829	253,463	309,617	268,372	253,463	422,020
Value of the Supplement	15,501	15,501	-	-	-	-	-	-	-	-	-	-
Value of C-O-L Provisions	71,169	79,076	83,376	52,667	50,693	52,667	65,257	52,667	-	26,581	52,667	34,079
Total Value of Benefit	363,092	401,714	456,115	356,909	345,437	385,651	427,086	306,130	309,617	294,953	306,130	456,098
Value of Employee Contributions	103,206	137,522	232,213	162,860	162,860	129,007	103,206	129,007	103,206	49,699	129,007	149,648
Employer Provided Value of Benefit	259,887	264,192	223,902	194,049	182,577	256,644	323,880	177,122	206,412	245,255	177,122	306,450

* Note: the Arlington Value of Basic Benefit includes the value of a 4.2% defined contribution benefit.
** Pre-7/1/10 VRS Benefit used - without 403(b)
*** Employee contributions for supplement assumed to be 1/3 of supplement value (PG)
^ VRS includes the 403b employer and employee contributions

Non-Fairfax group	
Average employer value	229,341
Average employee contribution	135,071
Average total Value	364,413

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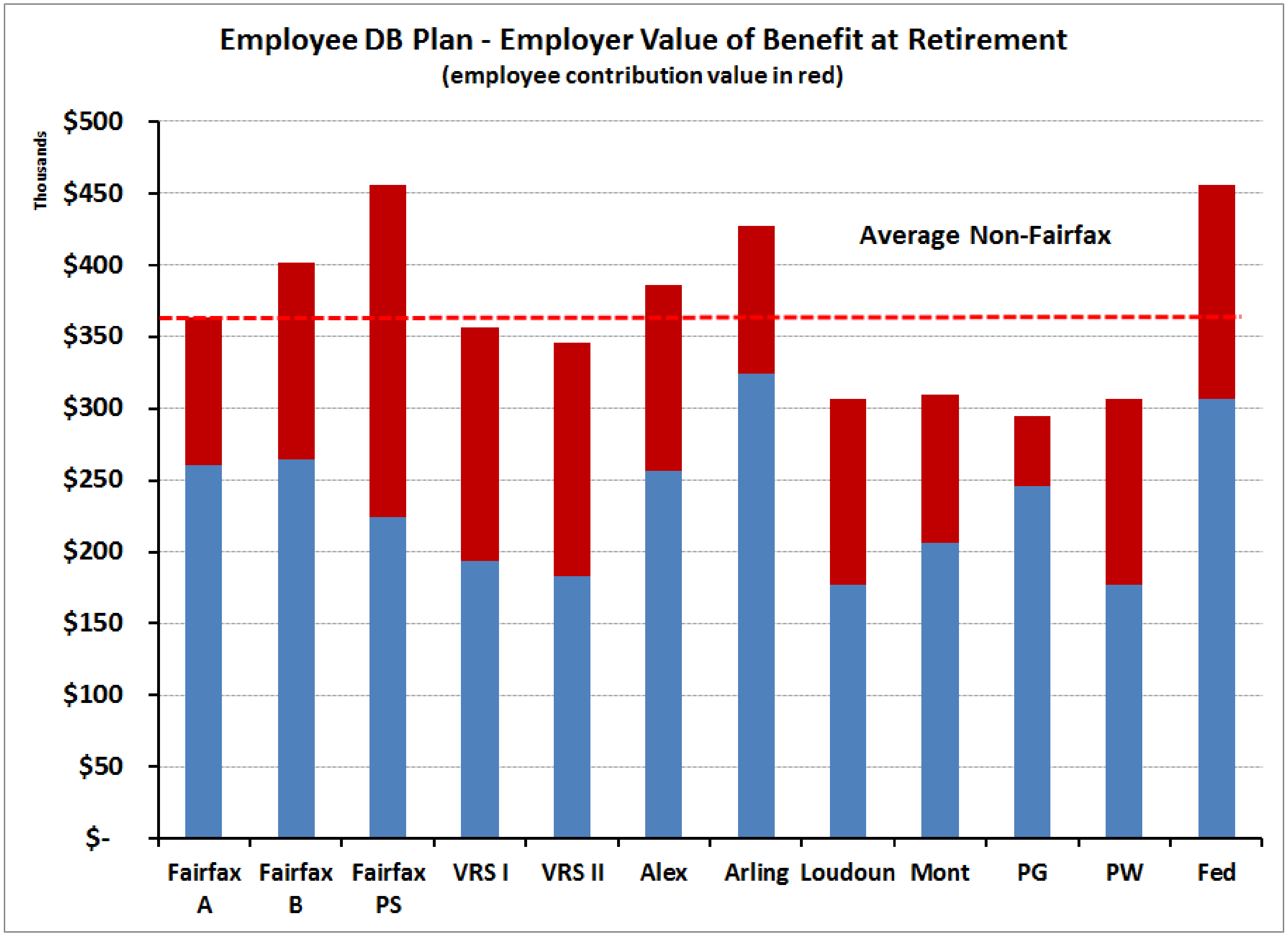
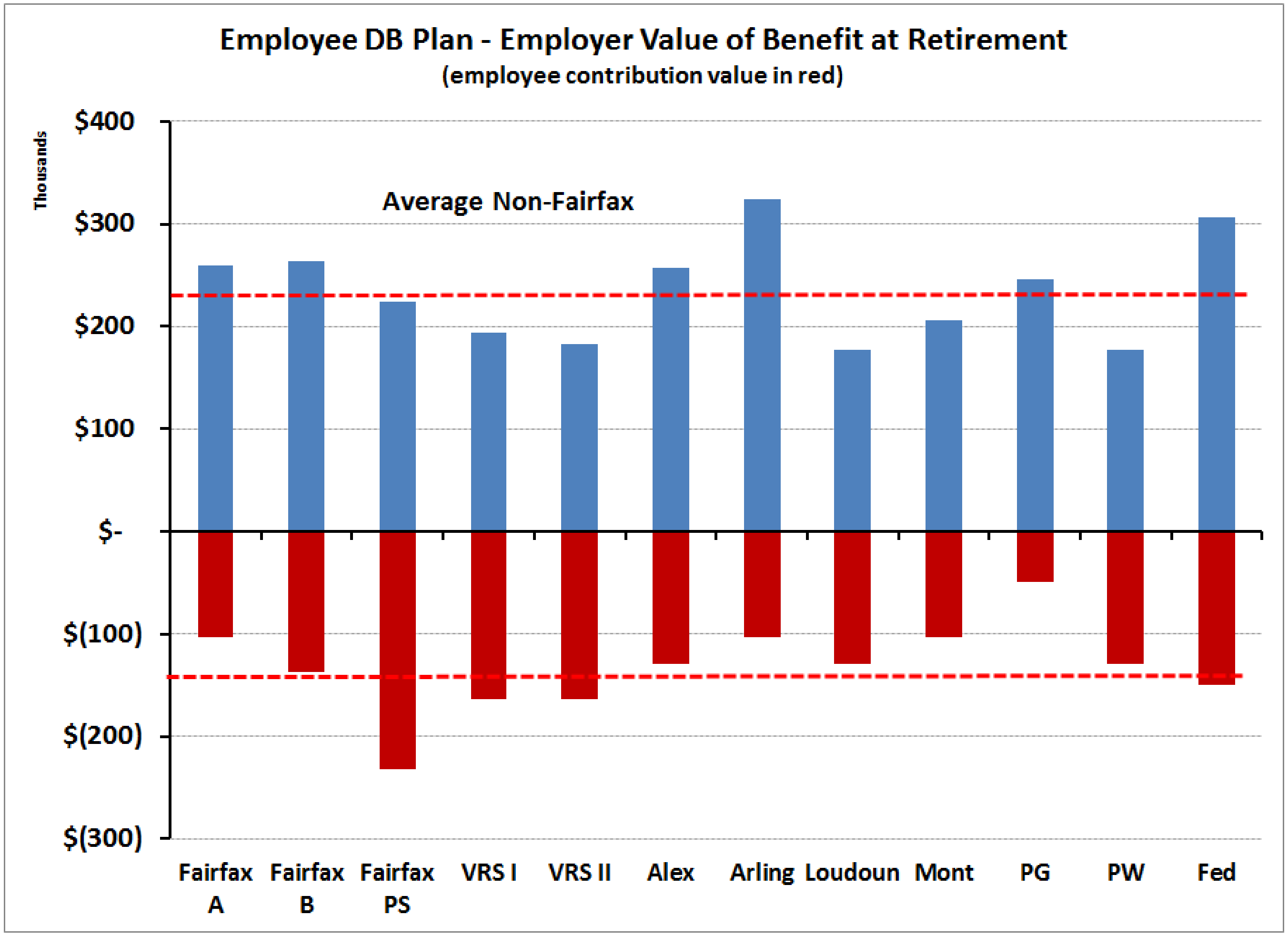
Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 65/25/$65,000



Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 65/25/$65,000



Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 65/25/$35,000

Reference Employee	
Age	65
Past Service	25
Retirement Age	65
Base Salary	35,000
Total Salary	35,000

Economic Assumptions	
Discount rate - Pre Retirement - DB	7.50%
DC Investment Return	7.50%
Salary Scale	4.00%
Inflation	3.00%
Lump Sum Conversions	7.50%

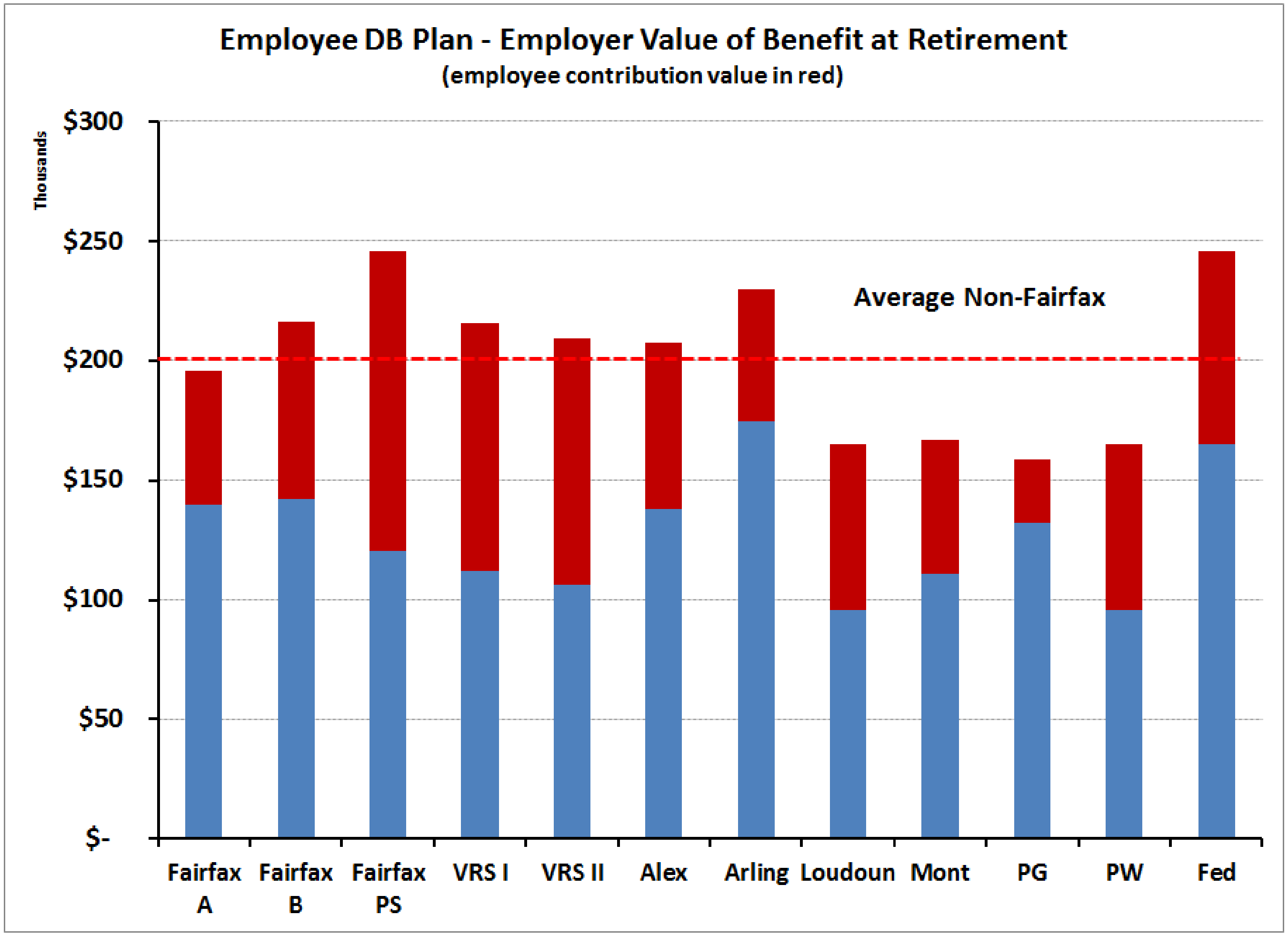
Results

	Fairfax A	Fairfax B	Fairfax Schools**	VRS Pre 7/1/10^	VRS Post 7/1/10^	Alexandria **	Arlington *	Loudoun **	Montgomery	Prince Georges ***	Prince William **	Federal
Basic Benefit	15,607	17,341	21,044	14,310	13,774	18,800	14,310	14,310	Def Cont	15,152	14,310	9,260
Value of Basic Benefit	148,843	165,382	200,706	187,259	182,145	179,299	194,831	136,480	166,717	144,508	136,480	227,241
Value of the Supplement	8,346	8,346	-	-	-	-	-	-	-	-	-	-
Value of C-O-L Provisions	38,322	42,579	44,895	28,359	27,296	28,359	35,138	28,359	-	14,313	28,359	18,350
Total Value of Benefit	195,511	216,307	245,601	215,619	209,441	207,658	229,969	164,839	166,717	158,821	164,839	245,591
Value of Employee Contributions	55,572	74,050	125,038	103,318	103,318	69,465	55,572	69,465	55,572	26,761	69,465	80,580
Employer Provided Value of Benefit	139,939	142,257	120,563	112,300	106,123	138,193	174,397	95,374	111,145	132,060	95,374	165,012

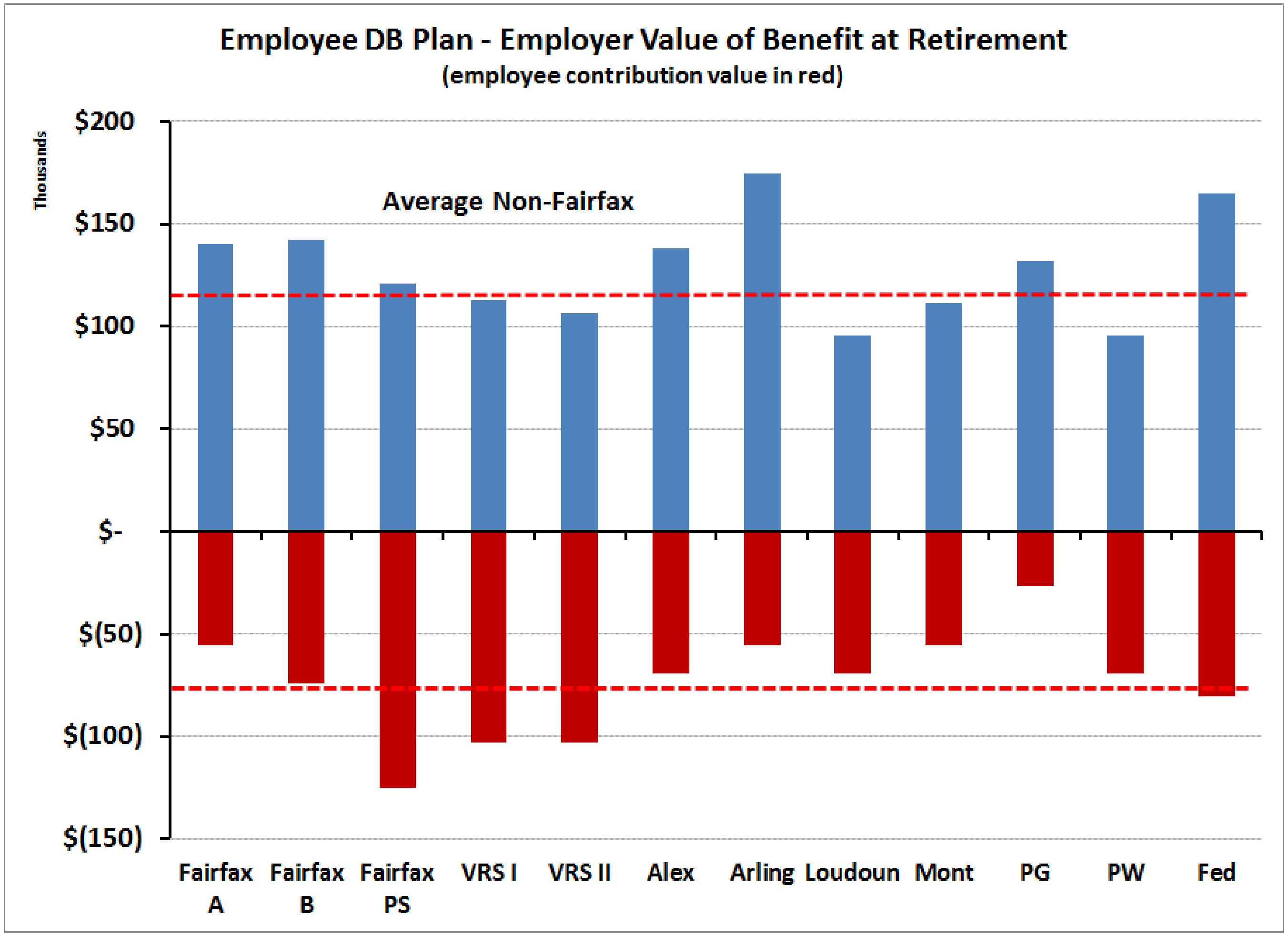
* Note: the Arlington Value of Basic Benefit includes the value of a 4.2% defined contribution benefit.
** Pre-7/1/10 VRS Benefit used - without 403(b)
*** Employee contributions for supplement assumed to be 1/3 of supplement value (PG)
^ VRS includes the 403b employer and employee contributions

Non-Fairfax group	
Average employer value	125,054
Average employee contribution	75,856
Average total Value	200,910

Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 65/25/$35,000



Appendix C – Numerical Results for Retirement Income Plans
Employee Plan 65/25/$35,000



Appendix C – Pick Up Contribution Treated as Employer Contribution Employee Plan 61/21/$65,000 – For Illustration Only

Reference Employee	
Age	61
Past Service	21
Retirement Age	61
Base Salary	65,000
Total Salary	65,000

Economic Assumptions	
Discount rate - Pre Retirement - DB	7.50%
DC Investment Return	7.50%
Salary Scale	4.00%
Inflation	3.00%
Lump Sum Conversions	7.50%

Results

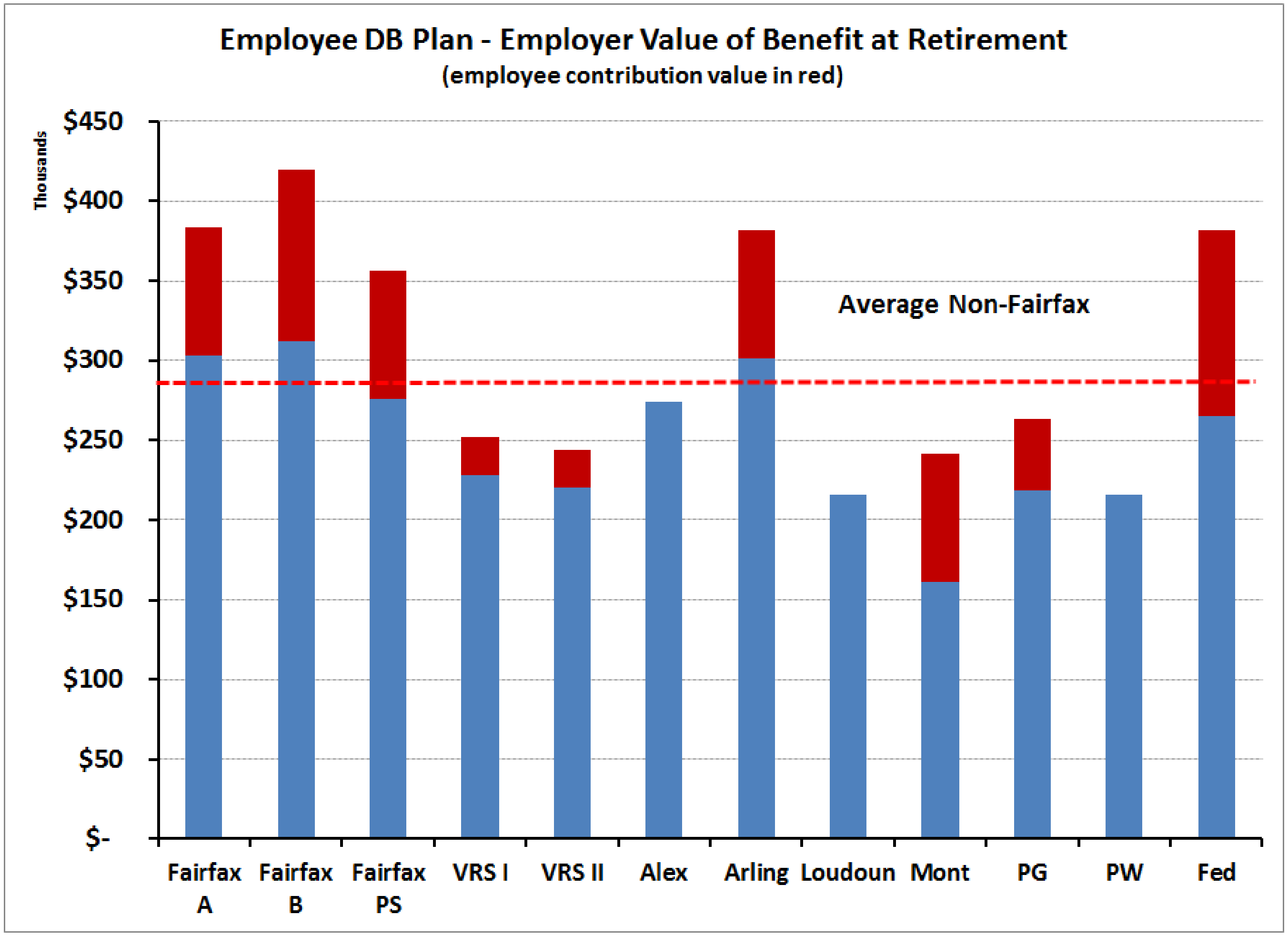
	Fairfax A	Fairfax B	Fairfax Schools**	VRS Pre 7/1/10^	VRS Post 7/1/10^	Alexandria **	Arlington *	Loudoun **	Montgomery	Prince Georges ***	Prince William **	Federal
Basic Benefit	24,346	27,051	27,472	16,966	16,330	22,569	22,324	16,966	Def Cont	23,007	16,966	13,132
Value of Basic Benefit	251,352	279,280	283,618	210,682	204,117	233,001	314,964	175,160	241,402	237,523	175,160	336,741
Value of the Supplement	55,818	55,818	-	-	-	-	-	-	-	-	-	13,183
Value of C-O-L Provisions	76,433	84,573	72,647	41,033	39,495	41,033	67,180	41,033	-	26,093	41,033	31,759
Total Value of Benefit	383,602	419,671	356,265	251,714	243,612	274,033	382,145	216,193	241,402	263,617	216,193	381,684
Value of Employee Contributions	80,467	107,223	80,467	23,681	23,681	-	80,467	-	80,467	45,191	-	116,678
Employer Provided Value of Benefit	303,135	312,448	275,798	228,033	219,931	274,033	301,677	216,193	160,935	218,426	216,193	265,006

* Note: the Arlington Value of Basic Benefit includes the value of a 4.2% defined contribution benefit.
** Pre-7/1/10 VRS Benefit used - without 403(b)
*** Employee contributions for supplement assumed to be 1/3 of supplement value (PG)
^ VRS includes the 403b employer and employee contributions

Non-Fairfax group	
Average employer value	237,622
Average employee contribution	45,063
Average total Value	282,686

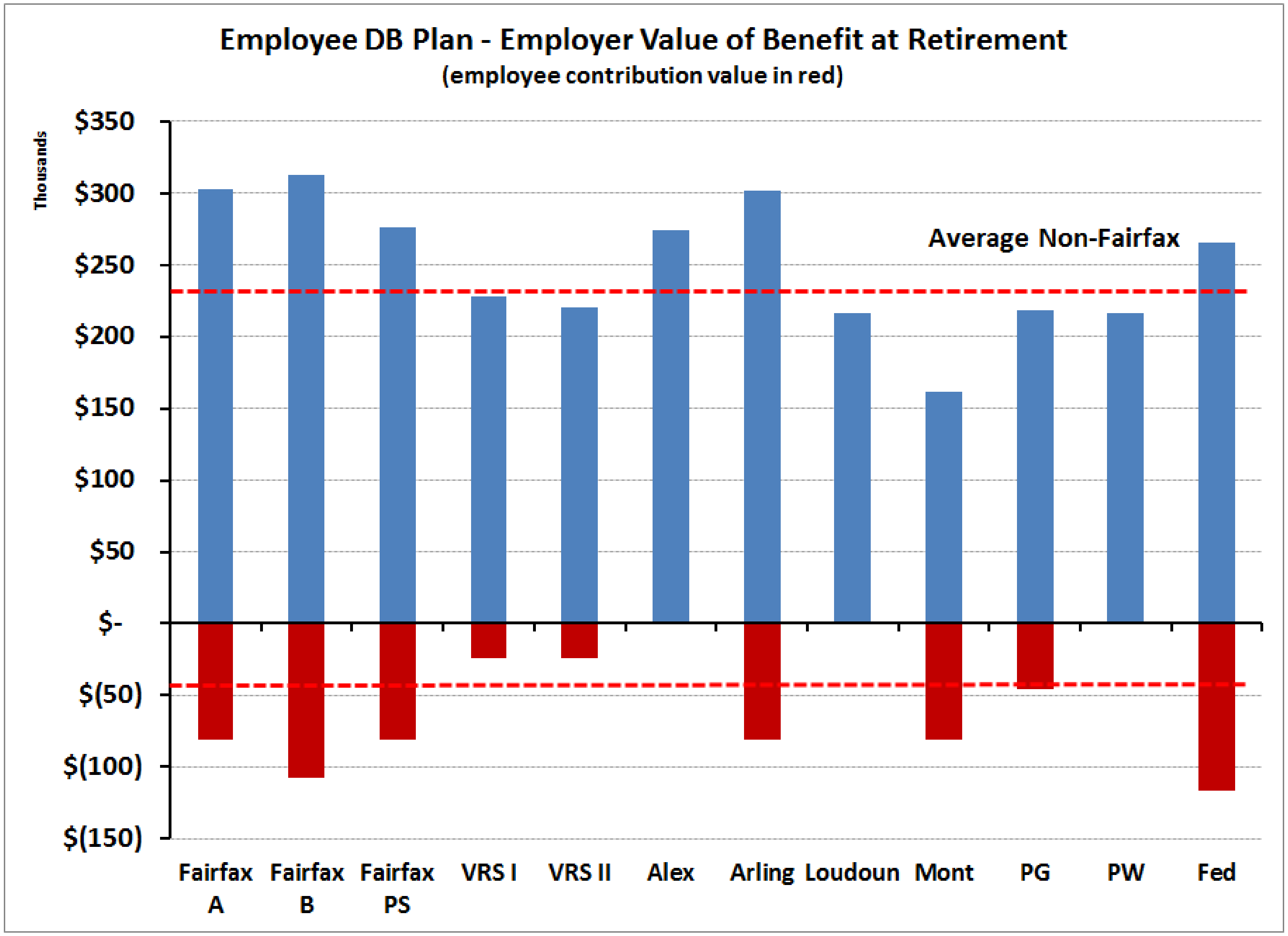
This chart assumes all VRS defined benefit contributions are treated as employer contributions.

Appendix C – Pick Up Contribution Treated as Employer Contribution Employee Plan 61/21/$65,000 – For Illustration Only



This graph assumes all VRS defined benefit contributions are treated as employer contributions.

Appendix C – Pick Up Contribution Treated as Employer Contribution Employee Plan 61/21/$65,000 – For Illustration Only



This graph assumes all VRS defined benefit contributions are treated as employer contributions.

Appendix C – Pick Up Contribution Treated as Employer Contribution Employee Plan 65/25/$65,000 – For Illustration Only

Reference Employee	
Age	65
Past Service	25
Retirement Age	65
Base Salary	65,000
Total Salary	65,000

Economic Assumptions	
Discount rate - Pre Retirement - DB	7.50%
DC Investment Return	7.50%
Salary Scale	4.00%
Inflation	3.00%
Lump Sum Conversions	7.50%

Results

	Fairfax A	Fairfax B	Fairfax Schools**	VRS Pre 7/1/10^	VRS Post 7/1/10^	Alexandria **	Arlington *	Loudoun **	Montgomery	Prince Georges ***	Prince William **	Federal
Basic Benefit	28,984	32,204	39,083	26,576	25,580	34,914	26,576	26,576	Def Cont	28,139	26,576	17,196
Value of Basic Benefit	276,423	307,137	372,739	304,242	294,744	332,984	361,829	253,463	309,617	268,372	253,463	422,020
Value of the Supplement	15,501	15,501	-	-	-	-	-	-	-	-	-	-
Value of C-O-L Provisions	71,169	79,076	83,376	52,667	50,693	52,667	65,257	52,667	-	26,581	52,667	34,079
Total Value of Benefit	363,092	401,714	456,115	356,909	345,437	385,651	427,086	306,130	309,617	294,953	306,130	456,098
Value of Employee Contributions	103,206	137,522	103,206	33,853	33,853	-	103,206	-	103,206	49,699	-	149,648
Employer Provided Value of Benefit	259,887	264,192	352,910	323,056	311,584	385,651	323,880	306,130	206,412	245,255	306,130	306,450

* Note: the Arlington Value of Basic Benefit includes the value of a 4.2% defined contribution benefit.
** Pre-7/1/10 VRS Benefit used - without 403(b)
*** Employee contributions for supplement assumed to be 1/3 of supplement value (PG)
^ VRS includes the 403b employer and employee contributions

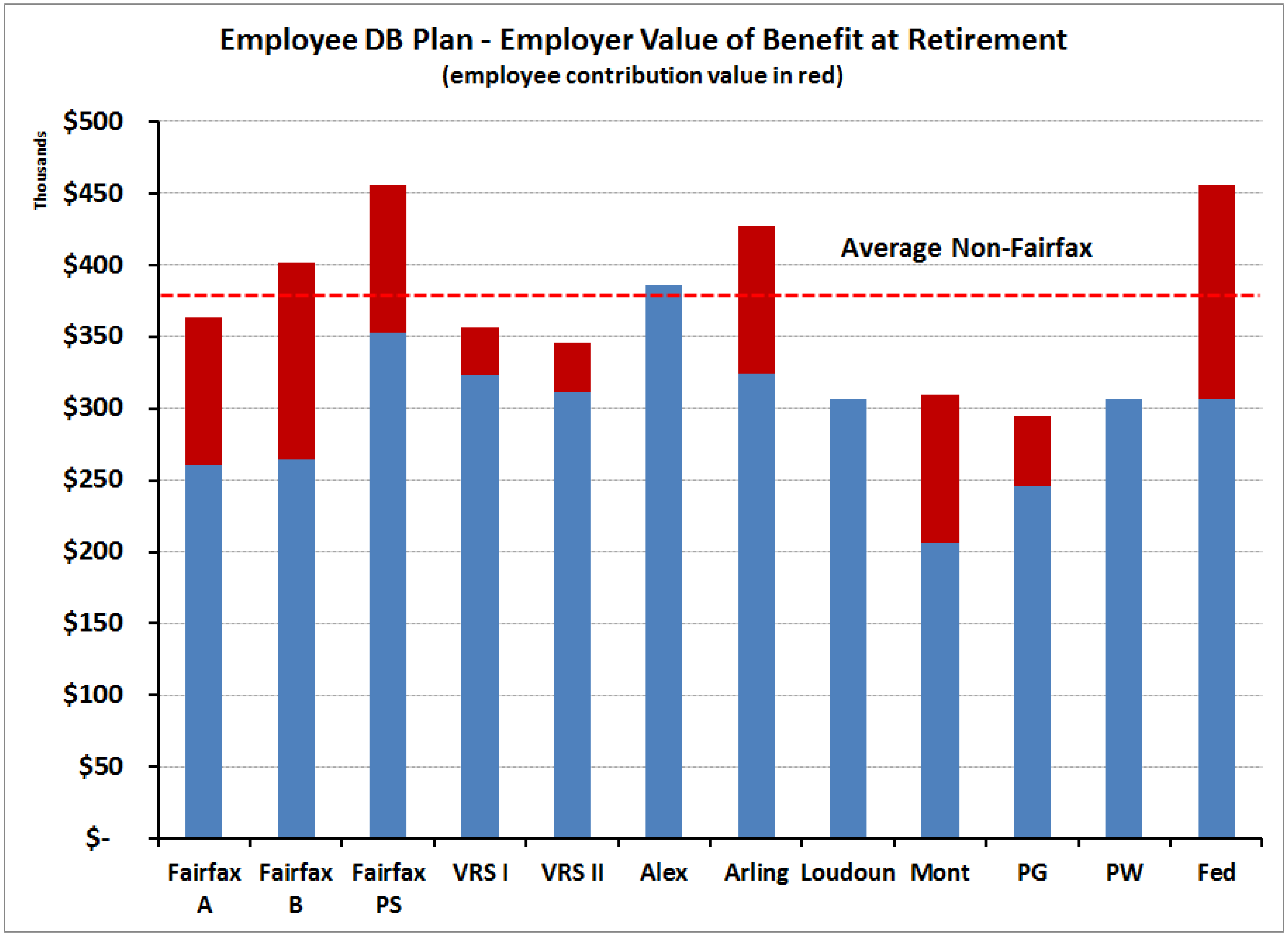
Non-Fairfax group	
Average employer value	306,746
Average employee contribution	57,667
Average total Value	364,413

This chart assumes all VRS defined benefit contributions are treated as employer contributions.

prm CONSULTING GROUP

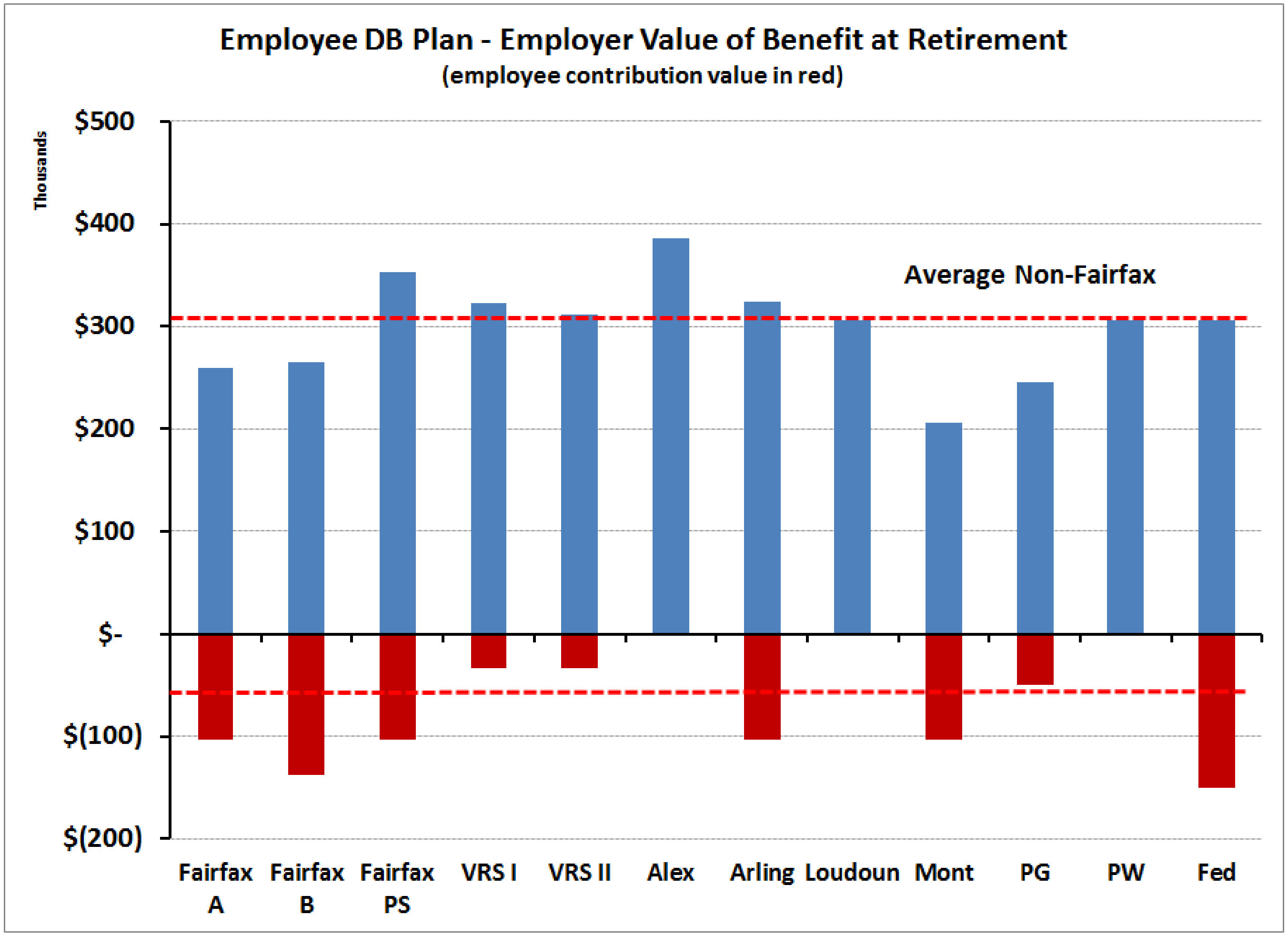
AON Hewitt

Appendix C – Pick Up Contribution Treated as Employer Contribution Employee Plan 65/25/$65,000 – For Illustration Only



This graph assumes all VRS defined benefit contributions are treated as employer contributions.

Appendix C – Pick Up Contribution Treated as Employer Contribution Employee Plan 65/25/$65,000 – For Illustration Only



This graph assumes all VRS defined benefit contributions are treated as employer contributions.

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Key Feature Comparison - Benefits in Effect Spring 2011

	Fairfax County Government		Alexandria City Government (July 1)		Arlington County Government		Fairfax County Public Schools	
Plan Type	**CIGNA OAP High Plan**		**UHC POS**		**CIGNA POS Open Access Plan**		**CareFirst Blue Preferred PPO**	
Network	In-Network	Out-of-Network	In-Network	Out-of-Network	In-Network	Out-of-Network	In- Network	Out-of-Network
Deductible								
Individual	None	$250	None	None	None	$300	None	$250
Family	None	$500	None	None	None	$600	None	$500
Co-insurance %	0%	30%	0%	20%	0%	30%	10%	30%
Out-of-Pocket Maximum (OOM)								
Deductible or Copay contribute to OOM	No, except for ER copay		Unknown		N/A	No	No	
Individual	None	$3,000	$2,800		None	$1,800	$500	$1,500
Family	None	$6,000	$8,600		None	$3,600	$1,000	$3,000
Office Visit co-pay PCP	$10	30% after Ded	$15	20%	$15	30% after Ded	$15	30% after Ded
Office Visit co-pay Spec	$15	30% after Ded	$25	20%	$30	30% after Ded	$15	30% after Ded
Inpatient Hospital	0%	30% after Ded	0%	20%	$ 100 per admission	$250 per admission, plus 30%	$100 per admission, then 10%	$100 per admission, then 30%
Outpatient Hospital Visit	$25	30% after Ded	$100	20%	$50	$125 per facility visit, plus 30%	10%	30% after Ded
Emergency Room	$150 (waived if admitted)	Benefits provided in-network for true emergency. Otherwise, 30% of allowed benefit after deductible.	$75	20%	$150 (waived if admitted)	$150 (waived if admitted)	$75 (waived if admitted)	$50, then 10% of plan allowance

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Key Feature Comparison - Benefits in Effect Spring 2011

	Fairfax County Government		Commonwealth of Virginia		FEHB	
Plan Type	**CIGNA OAP High Plan**		**COVA Care PPO/COVA Connect PPO**		**BCBS Standard Plan (PPO)**	
Network	In-Network	Out-of-Network	In- Network	Out-of-Network	In-Network	Out-of-Network
Deductible						
Individual	None	$250	$225		$350	$350
Family		$500	$450		$700	$700
Co-insurance %	0%	30%	0%	25%	15%	35%
Out-of-Pocket Maximum (OOM)						
Deductible or Copay contribute to OOM	No, except for ER copay		Yes, Ded and copays		Unknown	
Individual	None	$3,000	$1,500		$5,000	$7,000
Family	None	$6,000	$3,000		$5,000	$7,000
Office Visit co-pay PCP	$10	30% after Ded	$25	In-network benefit less a 25% reduction in the amount paid by the Health Plan	$20	35%
Office Visit co-pay Spec	$15	30% after Ded	$40		$30	35%
Inpatient Hospital	0%	30% after Ded	$300 per admission		$250 per admission	$350 per admission plus 35%
Outpatient Hospital Visit	$25	30% after Ded	$125		15%	35%
Emergency Room	$150 (waived if admitted)	Benefits provided in-network for true emergency. Otherwise, 30% of allowed benefit after deductible.	$125 (waived if admitted)		15%	15% of Plan allowance

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Key Feature Comparison - Benefits in Effect Spring 2011

	Fairfax County Government		**Loudoun County Government**		**Montgomery County Government**	
Plan Type	**CIGNA OAP High Plan**		**CIGNA Open Access Plus (PPO)**		**CareFirst Blue Cross and Blue Shield POS High Option**	
Network	In-Network	Out-of-Network	In-Network	Out-of-Network	In-Network	Out-of-Network
Deductible						
Individual	None	$250	$200	$500	None	$300
Family		$500	$600	$1,500		$600
Co-insurance %	0%	30%	10%	30%	0%	20%
Out-of-Pocket Maximum (OOM)						
Deductible or Copay contribute to OOM	No, except for ER copay		Yes, Ded	Yes, Ded	Yes, Ded	
Individual	None	$3,000	$1,000	$2,500	$1,000 per individual	$1,000 per individual
Family	None	$6,000	$2,000	$5,000		
Office Visit co-pay PCP	$10	30% after Ded	$15	30% after Ded	$10	20% after Ded
Office Visit co-pay Spec	$15	30% after Ded	$30	30% after Ded	$10	20% after Ded
Inpatient Hospital	0%	30% after Ded	$ 200 per admission, then 10%	$400 per admission, then 30%	0%	20% after Ded
Outpatient Hospital Visit	$25	30% after Ded	$ 100, then 10%	$200, then 30%	0%	20% after Ded
Emergency Room	$150 (waived if admitted)	Benefits provided in-network for true emergency. Otherwise, 30% of allowed benefit after deductible.	$100 (waived if admitted)	$100 (waived if admitted)	$25 (waived if admitted)	20% after Ded

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Key Feature Comparison - Benefits in Effect Spring 2011

	Fairfax County Government		Prince George's County Government		Prince William County Government	
Plan Type	**CIGNA OAP High Plan**		**CIGNA Open Access Plus plan PPO**		**Anthem KeyCare Enhanced PPO**	
Network	In-Network	Out-of-Network	In-Network	Out-of-Network	In-Network	Out-of-Network
Deductible						
Individual	None	$250	$50 per person	$300	None	$400
Family		$500		$550		$800
Co-insurance %	0%	30%	0%	20%	0%	30%
Out-of-Pocket Maximum (OOM)						
Deductible or Copay contribute to OOM	No, except for ER copay		Yes		Unknown	
Individual	None	$3,000	$2,000	$2,000	$1,000	$2,500
Family	None	$6,000	$4,000	$4,000	$3,000	$5,000
Office Visit co-pay PCP	$10	30% after Ded	$30	20% after Ded	$20	30% after Ded
Office Visit co-pay Spec	$15	30% after Ded	$35	20% after Ded	$20	30% after Ded
Inpatient Hospital	0%	30% after Ded	$250 per admission	20% after Ded	$350 per admission	30% after Ded
Outpatient Hospital Visit	$25	30% after Ded	$100	20% after Ded	$200	30% after Ded
Emergency Room	$150 (waived if admitted)	Benefits provided in-network for true emergency. Otherwise, 30% of allowed benefit after deductible.	$150 (waived if admitted)	In-network levels if it meets the “prudent layperson” definition of an emergency. Otherwise 20% after Ded	$200	30% after Ded

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Key Feature Comparison - Benefits in Effect Spring 2011

	Fairfax County Government	Alexandria City Government (July 1)	Arlington County Government	Fairfax County Public Schools
Plans Offered				
Same Plan offered to Actives?	Yes	Yes	Yes	Yes
Other Plans Offered	Care First POS, CIGNA OAP Low Option (POS), Kaiser HMO	UHC HMO, Kaiser HMO, Kaiser POS, Kaiser >65 HMO and individual market offerings	CIGNA HMO (same In-Network design), Kaiser HMO	Kaiser HMO

Medicare				
Are the above plans offered to Medicare retirees?	Yes, except for Kaiser plans (different HMO > 65)	Yes, except for Kaiser plans (different HMO > 65, no POS for > 65)	No, except the Kaiser HMO plan. Medicare eligibles can also enroll in the CIGNA Medicare Surround Plus Rx Plan.	Yes, except Kaiser plan for >65 retirees is a Medicare Cost plan with Part D EGWP Rx plan
If yes, type of Medicare Coordination (COB, Carve-out or Medicare Exclusion)	Carve-out	Unknown	N/A	Carve-out

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Key Feature Comparison - Benefits in Effect Spring 2011

Plans Offered	Fairfax County Government	Commonwealth of Virginia	FEHB
Same Plan offered to Actives?	Yes	Yes	Yes
Other Plans Offered	Care First POS, CIGNA OAP Low Option (POS), Kaiser HMO	COVA Care/ COVA Connect*, COVA CDHP, Kaiser HMO (* In-network only. Out of network benefit is an additional cost)	Plans offered vary by state
Medicare			
Are the above plans offered to Medicare retirees?	Yes, except for Kaiser plans (different HMO > 65)	No, Medicare retirees have access-only coverage under separate plans: Advantage 65, Medicare Complement Plan and a Medicare Supplement plan, plus Part D EGWP Rx plan	Yes
If yes, type of Medicare Coordination (COB, Carve-out or Medicare Exclusion)	Carve-out	N/A	COB

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Key Feature Comparison - Benefits in Effect Spring 2011

Plans Offered	Fairfax County Government	Loudoun County Government	Montgomery County Government
Same Plan offered to Actives?	Yes	Yes	Yes
Other Plans Offered	Care First POS, CIGNA OAP Low Option (POS), Kaiser HMO	CIGNA POS and CIGNA Choice CDHP	Carefirst Standard POS, Carefirst Indemnity, CareFirst Indemnity Carve Out, and UHC EPO

Medicare			
Are the above plans offered to Medicare retirees?	Yes, except for Kaiser plans (different HMO > 65)	No, Medicare retirees have a Medicare Advantage / EGWP plan	Yes
If yes, type of Medicare Coordination (COB, Carve-out or Medicare Exclusion)	Carve-out	N/A	COB

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Key Feature Comparison - Benefits in Effect Spring 2011

Plans Offered	Fairfax County Government	Prince George's County Government	Prince William County Government
Same Plan offered to Actives?	Yes	No, the OAP plan is offered to retiree only. CIGNA PPO, CIGNA HMO, and Kaiser HMO plan are available to actives	Yes
Other Plans Offered	Care First POS, CIGNA OAP Low Option (POS), Kaiser HMO	CIGNA POS, CIGNA HMO and Kaiser HMO	Anthem Healthkeepers HMO, and Anthem Keycare Enhanced and Core Plans

Medicare			
Are the above plans offered to Medicare retirees?	Yes, except for Kaiser plans (different HMO > 65)	Yes, except for the CIGNA HMO plan.	No, there is no Medicare supplemental coverage offered to over 65 retirees (just County credit)
If yes, type of Medicare Coordination (COB, Carve-out or Medicare Exclusion)	Carve-out	COB	N/A

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug
Key Feature Comparison - Benefits in Effect Spring 2011

Prescription Drugs	Fairfax County Government		Alexandria City Government (July 1)		Arlington County Government		Fairfax County Public Schools
Carve Out Prescription Drug (Y/N)	No		Unknown		No		Yes
If Yes, Prescription Vendor	N/A		Unknown		N/A		Express Scripts
Network	**In-Network**	**Out-of-Network**	**In-Network**	**Out-of-Network**	**In-Network**	**Out-of-Network**	**OOP Max Single: $1,500 Family:$3,000**
Retail Generic	$10	30% After Ded	$10	20%	$10	Not Covered	Greater of 20% coinsurance (not to exceed $25) and $7
Retail Formulary Brand	$20		$25		$25		Greater of 20% coinsurance (not to exceed $25) and $15
Retail Non-Formulary Brand	$40		$40		$45		Greater of 20% coinsurance (not to exceed $25) and $15
Mail Order Generic	$20	Not Covered	$20		$20		Greater of 20% coinsurance (not to exceed $50) and $14
Mail Order Formulary Brand	$40		$50		$50		Greater of 20% coinsurance (not to exceed $50) and $30
Mail Order Non-Formulary Brand	$80		$80		$90		Greater of 20% coinsurance (not to exceed $50) and $30

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Key Feature Comparison - Benefits in Effect Spring 2011

Prescription Drugs	Fairfax County Government		Commonwealth of Virginia		FEHB	
Carve Out Prescription Drug (Y/N)	No		Yes		No	
If Yes, Prescription Vendor	N/A		Medco		N/A	
Network	**In-Network**	**Out-of-Network**	**In- Network**	**Out-of-Network**	**In-Network**	**Out-of-Network**
Retail Generic	$10	30% After Ded	$15	Participant reimbursed amount drug would have cost at a participating retail pharmacy, minus retail co-payment.	20% (waived for the first 4 generic drug replacements filled)	45%
Retail Formulary Brand	$20		$25		30%	
Retail Non-Formulary Brand	$40		$40		30%	
Mail Order Generic	$20	Not Covered	$30	Not Covered	$10 (waived for the first 4 generic drug replacements filled)	
Mail Order Formulary Brand	$40		$50		$70 for the first 30 brand-name prescriptions filled $50 thereafter	
Mail Order Non-Formulary Brand	$80		$80		$70 for the first 30 brand-name prescriptions filled $50 thereafter	

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Key Feature Comparison - Benefits in Effect Spring 2011

Prescription Drugs	Fairfax County Government		Loudoun County Government		Montgomery County Government	
Carve Out Prescription Drug (Y/N)	No		Yes		Yes	
If Yes, Prescription Vendor	N/A		Medco		Caremark	
Network	**In-Network**	**Out-of-Network**	**In-Network**	**Out-of-Network**	**High Option**	**Standard Option Ded $50- Single; $150 Family**
Retail Generic	$10	30% After Ded	$5	30%	$5	$10
Retail Formulary Brand	$20		$25		$10	$20
Retail Non-Formulary Brand	$40		$45		$10	$35
Mail Order Generic	$20	Not Covered	$10	Not Covered	$5	$10
Mail Order Formulary Brand	$40		$50		$10	$20
Mail Order Non-Formulary Brand	$80		$90		$10	$35

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Key Feature Comparison - Benefits in Effect Spring 2011

Prescription Drugs	Fairfax County Government		Prince George's County Government		Prince William County Government	
Carve Out Prescription Drug (Y/N)	No		Yes		No	
If Yes, Prescription Vendor	N/A		Medco		N/A	
Network	**In-Network**	**Out-of-Network**	**In-Network**	**Out-of-Network**	**In-Network**	**Out-of-Network**
Retail Generic	$10	30% After Ded	$10	Not Covered	$10	Unknown
Retail Formulary Brand	$20		Greater of $20 or 20% of cost, maximum $50		$30	
Retail Non-Formulary Brand	$40		Greater of $40 or 30% of cost, maximum $50		$60	
Mail Order Generic	$20	Not Covered	$20		$20	
Mail Order Formulary Brand	$40		Greater of $40 or 20% of cost, maximum $100		$60	
Mail Order Non-Formulary Brand	$80		Greater of $80 or 30% of cost, maximum $100.		$120	

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Employer's Explicit Subsidy

	Fairfax County Government	Alexandria City Government (July 1)
Plan Type	**CIGNA OAP High Plan**	**UHC POS**
Fixed Employer Subsidy?	Yes	Yes
Employer Explicit Subsidy Description	Monthly Subsidy for Retirees Ages 55-64 and over 65 are the following: Years of Service / Subsidy 5-9: $30 10-14: $65 15-19: $155 20-24: $190 25+*: $220 *Also includes retirees of any age who are approved for a service-connected disability retirement and covered under a County health plan and police officers who retired with unreduced benefits after 20 years of service.	City provides $260 monthly subsidy for coverage, regardless of number of dependents covered; employees hired after 9/30/2007 have the $260 subsidy adjusted for service at retirement; retirees may use the City subsidy to purchase City benefits (UHC HMO, UHC POS, Kaiser HMO, Kaiser POS, Kaiser >65) or coverage on the individual market

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Employer's Explicit Subsidy

<table>
<tr><th></th><th>Fairfax County Government</th><th>Arlington County Government</th></tr>
<tr><td>Plan Type</td><td>CIGNA OAP High Plan</td><td>CIGNA POS Open Access Plan</td></tr>
<tr><td>Fixed Employer Subsidy?</td><td>Yes</td><td>Yes, pre-65 retirees only</td></tr>
<tr><td>Employer Explicit Subsidy Description</td>
<td>Monthly Subsidy for Retirees Ages 55-64 and over 65 are the following:
<table>
<tr><th>Years of Service</th><th>Subsidy</th></tr>
<tr><td>5-9</td><td>$30</td></tr>
<tr><td>10-14</td><td>$65</td></tr>
<tr><td>15-19</td><td>$155</td></tr>
<tr><td>20-24</td><td>$190</td></tr>
<tr><td>25+*</td><td>$220</td></tr>
</table>
*Also includes retirees of any age who are approved for a service-connected disability retirement and covered under a County health plan and police officers who retired with unreduced benefits after 20 years of service.</td>
<td>The employer explicit subsidy varies by the retirees years of service.
Chapter 46- for employees hired on or after 2/8/81
Chapter 21-for employees hired prior to 2/8/81

Non Medicare Retirees ($ subsidy also applies to 1 non- Medicare and 1 Medicare). Subsidy provided to retirees vary by tier and years of service.
<table>
<tr><th>Chapters</th><th>Years of Service</th><th>Subsidy (Single)</th></tr>
<tr><td>Chapter 21</td><td>20+</td><td>$352.49</td></tr>
<tr><td>Chapter 46</td><td>25+</td><td>$352.49</td></tr>
<tr><td>Chapter 46</td><td>23-24</td><td>$324.41</td></tr>
<tr><td>Chapter 46</td><td>20-22</td><td>$282.29</td></tr>
<tr><td>All</td><td>15-19</td><td>$212.08</td></tr>
<tr><td>All</td><td>10-14</td><td>$141.87</td></tr>
<tr><td>All</td><td>0-9</td><td>$71.66</td></tr>
</table>
Medicare Retiree pays the below percentage of the rate. The employer explicit subsidy is the balance
<table>
<tr><th>Years of Service</th><th>Years of Service</th><th>Retiree Pays</th></tr>
<tr><td>Chapter 21</td><td>20+</td><td>10%</td></tr>
<tr><td>Chapter 46</td><td>25+</td><td>10%</td></tr>
<tr><td>Chapter 46</td><td>23-24</td><td>17%</td></tr>
<tr><td>Chapter 46</td><td>20-22</td><td>28%</td></tr>
<tr><td>All</td><td>15-19</td><td>46%</td></tr>
<tr><td>All</td><td>10-14</td><td>64%</td></tr>
<tr><td>All</td><td>0-9</td><td>82%</td></tr>
</table></td></tr>
</table>

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Employer's Explicit Subsidy

	Fairfax County Government	Fairfax County Public Schools
Plan Type	**CIGNA OAP High Plan**	**CareFirst Blue Preferred PPO**
Fixed Employer Subsidy?	Yes	Yes
Employer Explicit Subsidy Description	Monthly Subsidy for Retirees Ages 55-64 and over 65 are the following: Years of Service — Subsidy 5-9 — $30 10-14 — $65 15-19 — $155 20-24 — $190 25+* — $220 *Also includes retirees of any age who are approved for a service-connected disability retirement and covered under a County health plan and police officers who retired with unreduced benefits after 20 years of service.	ERFC: $100 plus VRS subsidy; FCERS: FCERS (retired before 7/1/2004) Year of Service — U65 — O65 Less than 15 — $100 — $100 15-19 — $125 — $100 20-24 — $150 — $150 25+ — $175 — $175 FCERS (retired on or after 7/1/2004) Year of Service — U65 — O65 5-9 — $25 — $15 10-14 — $50 — $25 15-19 — $125 — $100 20-24 — $150 — $150 25+ — $175 — $175

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Employer's Explicit Subsidy

	Fairfax County Government	Commonwealth of Virginia
Plan Type	**CIGNA OAP High Plan**	**COVA Care PPO/COVA Connect PPO**
Fixed Employer Subsidy?	Yes	Yes, from VRS
Employer Explicit Subsidy Description	Monthly Subsidy for Retirees Ages 55-64 and over 65 are the following: Years of Service — Subsidy 5-9 — $30 10-14 — $65 15-19 — $155 20-24 — $190 25+* — $220 *Also includes retirees of any age who are approved for a service-connected disability retirement and covered under a County health plan and police officers who retired with unreduced benefits after 20 years of service.	None, except VRS credit (category comparable to County employees) $4 x years of service at retirement 25 years of service: $100

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Employer's Explicit Subsidy

	Fairfax County Government	FEHB
Plan Type	**CIGNA OAP High Plan**	**BCBS Standard Plan (PPO)**
Fixed Employer Subsidy?	Yes	No
Employer Explicit Subsidy Description	Monthly Subsidy for Retirees Ages 55-64 and over 65 are the following: Years of Service — Subsidy 5-9 — $30 10-14 — $65 15-19 — $155 20-24 — $190 25+* — $220 *Also includes retirees of any age who are approved for a service-connected disability retirement and covered under a County health plan and police officers who retired with unreduced benefits after 20 years of service.	The government pays the lesser of: 72% of the average total premium of all plans weighted by the number of enrollees in each, or 75% of the premium for the specific plan chosen.

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Employer's Explicit Subsidy

	Fairfax County Government	Loudoun County Government
Plan Type	**CIGNA OAP High Plan**	**CIGNA Open Access Plus (PPO)**
Fixed Employer Subsidy?	Yes	No
Employer Explicit Subsidy Description	Monthly Subsidy for Retirees Ages 55-64 and over 65 are the following:	Retiree pays percentage of rate based on years of service and tier (i.e. single and family)-- employer explicit subsidy is the balance.

Fairfax County Government

Years of Service	Subsidy
5-9	$30
10-14	$65
15-19	$155
20-24	$190
25+*	$220

*Also includes retirees of any age who are approved for a service-connected disability retirement and covered under a County health plan and police officers who retired with unreduced benefits after 20 years of service.

Loudoun County Government

Non Medicare Eligible

Years of Service	Single	Single +1	Family
25+	5%	15%	22%
20-24	24%	32%	38%
15-19	62%	66%	69%
10-14	81%	83%	84%

Medicare Eligible

Years of Service	Medicare	1 Over/1Under	2 Medicare	Family + Medicare
25+	0%	3%	0%	22%
20-24	10%	23%	10%	38%
15-19	60%	61%	60%	69%
10-14	80%	81%	80%	84%

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Employer's Explicit Subsidy

	Fairfax County Government	Montgomery County Government
Plan Type	**CIGNA OAP High Plan**	**CareFirst Blue Cross and Blue Shield POS High Option & Standard Rx**
Fixed Employer Subsidy?	Yes	No
Employer Explicit Subsidy Description	Monthly Subsidy for Retirees Ages 55-64 and over 65 are the following: Years of Service — Subsidy 5-9 — $30 10-14 — $65 15-19 — $155 20-24 — $190 25+* — $220 *Also includes retirees of any age who are approved for a service-connected disability retirement and covered under a County health plan and police officers who retired with unreduced benefits after 20 years of service.	Retiree pays this percentage of rate -- employer explicit subsidy is balance: Recent date of hire was after December 31, 1986. Years of Service — Retiree Contribution 15+ — 30% 10 — 40% 5 — 50% For each year between 5 and 15 years, the County's share increases 2%; Retirees that choose to participate in the high option prescription plan will pay a higher percentage of the cost Recent date of hire was prior to January 1, 1987, For the period of time equal to the number of years of eligibility under the group insurance plan, beginning from retirement date- 20%* After that period-- 100% * Retirees that choose to participate in the high option prescription plan will pay a higher percentage of the cost

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Employer's Explicit Subsidy

	Fairfax County Government	Prince George's County Government
Plan Type	**CIGNA OAP High Plan**	**CIGNA Open Access Plus plan PPO**
Fixed Employer Subsidy?	Yes	No
Employer Explicit Subsidy Description	Monthly Subsidy for Retirees Ages 55-64 and over 65 are the following: Years of Service / Subsidy 5-9: $30 10-14: $65 15-19: $155 20-24: $190 25+*: $220 *Also includes retirees of any age who are approved for a service-connected disability retirement and covered under a County health plan and police officers who retired with unreduced benefits after 20 years of service.	Retiree pays this percentage of rate -- employer explicit subsidy is balance. (Public Safety / Non-Public Safety) PPO/POS: 27% / 27% HMO: 22% / 22% RX: 12% / 75% Vision: 12% / 100%

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Employer's Explicit Subsidy

	Fairfax County Government	Prince William County Government
Plan Type	**CIGNA OAP High Plan**	**Anthem KeyCare Enhanced PPO**
Fixed Employer Subsidy?	Yes	Yes
Employer Explicit Subsidy Description	Monthly Subsidy for Retirees Ages 55-64 and over 65 are the following: Years of Service — Subsidy 5-9 — $30 10-14 — $65 15-19 — $155 20-24 — $190 25+* — $220 *Also includes retirees of any age who are approved for a service-connected disability retirement and covered under a County health plan and police officers who retired with unreduced benefits after 20 years of service.	RHICP provides $5.50 times service (max 30 years) for a credit toward the purchase of health coverage, either through the County (pre-65 only) or on the individual market.

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Rates by Tier and 25-Year Service Retiree Premium Example

	Fairfax County Government			Alexandria City Government (July 1)		
Plan Type	CIGNA OAP High Plan			UHC POS		
	Total	Ret $ Cont	Ret % Cont	Total	Ret $ Cont	Ret % Cont
Single	$537.17	$317.17	59%	$605.42	$345.42	57%
Retiree + Ch	$1,047.50	$827.50	79%	$1,158.58	$898.58	78%
Retiree + SP	$1,047.50	$827.50	79%	$1,158.58	$898.58	78%
Family	$1,563.12	$1,343.12	86%	$1,816.26	$1,556.26	86%
Medicare	$367.00	$147.00	40%	$514.61	$254.61	49%
1 with Medicare; 1 without Medicare	$896.97	$676.97	75%	$1,120.03	$860.03	77%
2 With Medicare	$726.79	$506.79	70%	$1,067.76	$807.76	76%
Comments on Development of Retiree's $ Contribution	$220 fixed subsidy, assuming 25 years of service			$260 fixed subsidy, assuming 25 years of service		

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Rates by Tier and 25-Year Service Retiree Premium Example

	Fairfax County Government			Arlington County Government		
Plan Type	CIGNA OAP High Plan			CIGNA POS Open Access Plan		
	Total	Ret $ Cont	Ret % Cont	Total	Ret $ Cont	Ret % Cont
Single	$537.17	$317.17	59%	$628.31	$275.82	44%
Retiree + Ch	$1,047.50	$827.50	79%	$1,168.61	$529.31	45%
Retiree + SP	$1,047.50	$827.50	79%	$1,319.10	$588.15	45%
Family	$1,563.12	$1,343.12	86%	$1,913.32	$953.32	50%
Medicare	$367.00	$147.00	40%	$331.83	$33.18	10%
1 with Medicare; 1 without Medicare	$896.97	$676.97	75%	$960.13	$309.00	32%
2 With Medicare	$726.79	$506.79	70%	$663.66	$66.37	10%
Comments on Development of Retiree's $ Contribution	$220 fixed subsidy, assuming 25 years of service			- $352.49 single pre-65 fixed subsidy, assuming 25 years of service -POS Open Access Plan is not available to Medicare Eligibles. The rates reflected are from the CIGNA Surround Plus plan		

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Rates by Tier and 25-Year Service Retiree Premium Example

	Fairfax County Government			Fairfax County Public Schools		
Plan Type	CIGNA OAP High Plan			CareFirst Blue Preferred PPO		
	Total	Ret $ Cont	Ret % Cont	Total	Ret $ Cont	Ret % Cont
Single	$537.17	$317.17	59%	$536.03	$361.03	67%
Retiree + Ch	$1,047.50	$827.50	79%	$1,072.06	$897.06	84%
Retiree + SP	$1,047.50	$827.50	79%	$1,072.06	$897.06	84%
Family	$1,563.12	$1,343.12	86%	$1,340.07	$1,165.07	87%
Medicare	$367.00	$147.00	40%	$318.83	$143.83	45%
1 with Medicare; 1 without Medicare	$896.97	$676.97	75%	$854.86	$679.86	80%
2 With Medicare	$726.79	$506.79	70%	$637.66	$462.66	73%
Comments on Development of Retiree's $ Contribution	$220 fixed subsidy, assuming 25 years of service			$175 fixed subsidy, assuming 25 years of service		

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Rates by Tier and 25-Year Service Retiree Premium Example

	Fairfax County Government			Commonwealth of Virginia		
Plan Type	CIGNA OAP High Plan			COVA Care PPO/COVA Connect PPO		
	Total	Ret $ Cont	Ret % Cont	Total	Ret $	Ret % Cont
Single	$537.17	$317.17	59%	$512.00	$412.00	80%
Retiree + Ch	$1,047.50	$827.50	79%	$941.00	$841.00	89%
Retiree + SP	$1,047.50	$827.50	79%	$941.00	$841.00	89%
Family	$1,563.12	$1,343.12	86%	$1,374.00	$1,274.00	93%
Medicare	$367.00	$147.00	40%	$258.00	$158.00	61%
1 with Medicare; 1 without Medicare	$896.97	$676.97	75%	$770.00	$670.00	87%
2 With Medicare	$726.79	$506.79	70%	$516.00	$416.00	81%
Comments on Development of Retiree's $ Contribution	$220 fixed subsidy, assuming 25 years of service			- $100 VRS fixed subsidy, assuming 25 years of service -COVA Care/ COVA Connect is not available to Medicare retirees, The rates reflected are for the Advantage 65 plan plus Part D EGWP Rx plan		

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Rates by Tier and 25-Year Service Retiree Premium Example

	Fairfax County Government			FEHB		
Plan Type	**CIGNA OAP High Plan**			**BCBS Standard Plan (PPO)**		
	Total	**Ret $ Cont**	**Ret % Cont**	**Total**	**Ret $ Cont**	**Ret % Cont**
Single	$537.17	$317.17	59%	$578.61	$187.18	32%
Retiree + Ch	$1,047.50	$827.50	79%	N/A	N/A	N/A
Retiree + SP	$1,047.50	$827.50	79%	N/A	N/A	N/A
Family	$1,563.12	$1,343.12	86%	$1,306.89	$431.60	33%
Medicare	$367.00	$147.00	40%	$578.61	$187.18	32%
1 with Medicare; 1 without Medicare	$896.97	$676.97	75%	N/A	N/A	N/A
2 With Medicare	$726.79	$506.79	70%	$1,306.89	$431.60	33%
Comments on Development of Retiree's $ Contribution	$220 fixed subsidy, assuming 25 years of service			- Rates reflect non-postal workers - Retirees may choose from Self Only coverage or Self and Family coverage. Other coverage types, such as Medicare enrolled and/or Medicare eligible, are not available in the FEHB plan		

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Rates by Tier and 25-Year Service Retiree Premium Example

	Fairfax County Government			Loudoun County Government		
Plan Type	CIGNA OAP High Plan			CIGNA Open Access Plus (PPO)		
	Total	Ret $ Cont	Ret % Cont	Total	Ret $ Cont	Ret % Cont
Single	$537.17	$317.17	59%	$551.48	$27.57	5%
Retiree + Ch	$1,047.50	$827.50	79%	$1,007.02	$151.05	15%
Retiree + SP	$1,047.50	$827.50	79%	$1,007.02	$151.05	15%
Family	$1,563.12	$1,343.12	86%	$1,378.73	$303.32	22%
Medicare	$367.00	$147.00	40%	$248.00	$0.00	0%
1 with Medicare; 1 without Medicare	$896.97	$676.97	75%	$799.48	$27.57	3%
2 With Medicare	$726.79	$506.79	70%	$496.00	$0.00	0%
Comments on Development of Retiree's $ Contribution	$220 fixed subsidy, assuming 25 years of service			- Retiree cost assume 25 years of service -CIGNA Open Access Plus is not available to Medicare Retirees. Rates reflected are Medicare Advantage plus Part D plan through CIGNA/Humana		

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Rates by Tier and 25-Year Service Retiree Premium Example

	Fairfax County Government			Montgomery County Government		
Plan Type	**CIGNA OAP High Plan**			**CareFirst Blue Cross and Blue Shield POS High Option & Standard Rx**		
	Total	**Ret $ Cont**	**Ret % Cont**	**Total**	**Ret $ Cont**	**Ret % Cont**
Single	$537.17	$317.17	59%	$580.01	$174.00	30%
Retiree + Ch	$1,047.50	$827.50	79%	$1,017.96	$305.39	30%
Retiree + SP	$1,047.50	$827.50	79%	$1,017.96	$305.39	30%
Family	$1,563.12	$1,343.12	86%	$1,683.84	$505.15	30%
Medicare	$367.00	$147.00	40%	$397.54	$119.26	30%
1 with Medicare; 1 without Medicare	$896.97	$676.97	75%	$835.49	$250.65	30%
2 With Medicare	$726.79	$506.79	70%	$758.89	$227.67	30%
Comments on Development of Retiree's $ Contribution	$220 fixed subsidy, assuming 25 years of service			-Rates assume Standard Option RX; High Option Rx is a buy-up option for retirees		

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Rates by Tier and 25-Year Service Retiree Premium Example

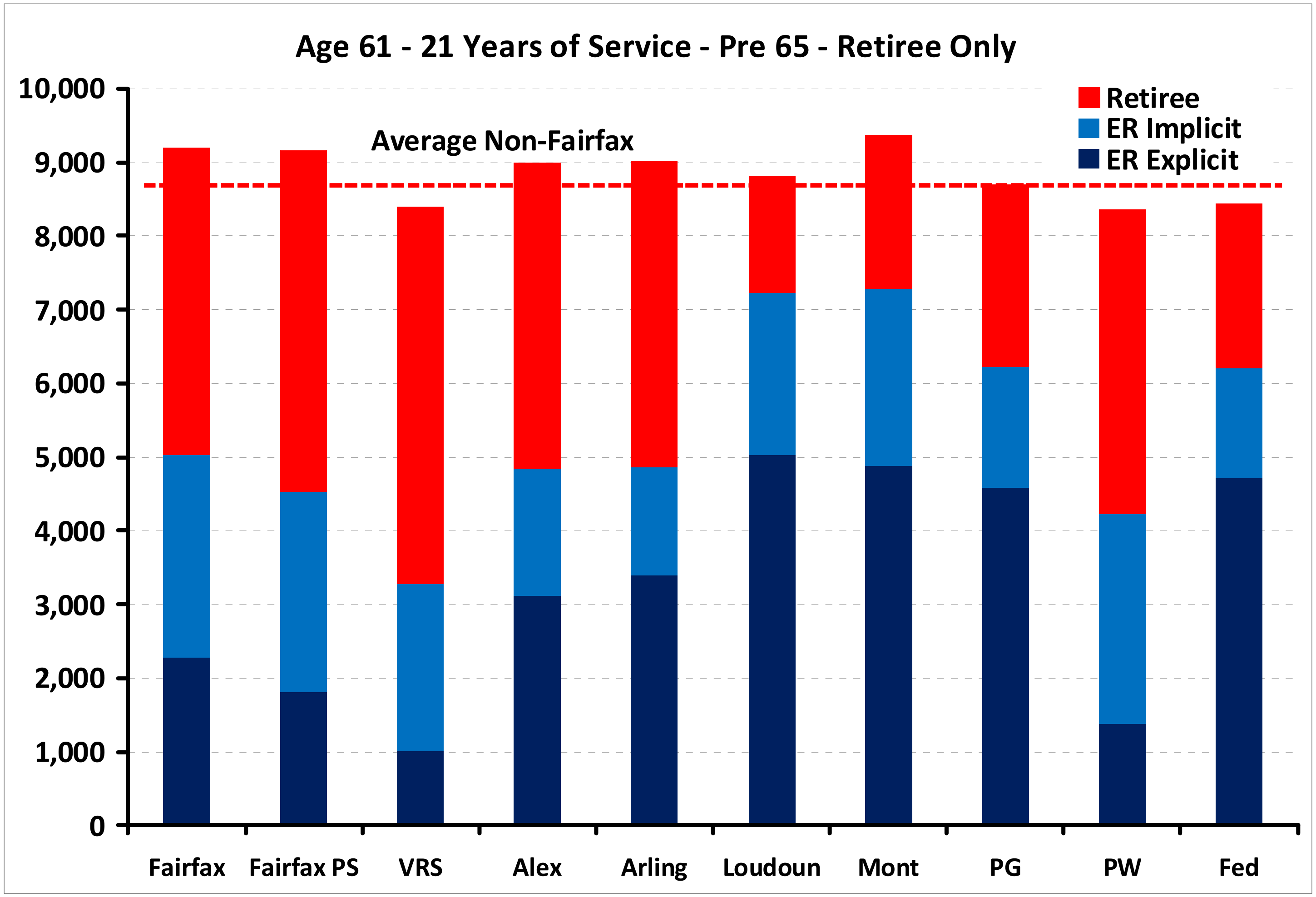
	Fairfax County Government			Prince George's County Government		
Plan Type	**CIGNA OAP High Plan**			**CIGNA Open Access Plus plan PPO**		
	Total	**Ret $ Cont**	**Ret % Cont**	**Total**	**Ret $ Cont**	**Ret % Cont**
Single	$537.17	$317.17	59%	$587.14	$205.68	35%
Retiree + Ch	$1,047.50	$827.50	79%	$1,182.13	$413.62	35%
Retiree + SP	$1,047.50	$827.50	79%	$1,182.13	$413.62	35%
Family	$1,563.12	$1,343.12	86%	$1,634.87	$562.03	34%
Medicare	$367.00	$147.00	40%	$287.26	$124.72	43%
1 with Medicare; 1 without Medicare	$896.97	$676.97	75%	$877.21	$331.29	38%
2 With Medicare	$726.79	$506.79	70%	$577.35	$250.33	43%
Comments on Development of Retiree's $ Contribution	$220 fixed subsidy, assuming 25 years of service			Retiree contributions are reflective of Non-Public Safety; Public Safety employer subsidy is greater for Rx		

Appendix D - Fairfax County Government Retiree Medical and Prescription Drug Cost Comparison - Spring 2011 Rates by Tier and 25-Year Service Retiree Premium Example

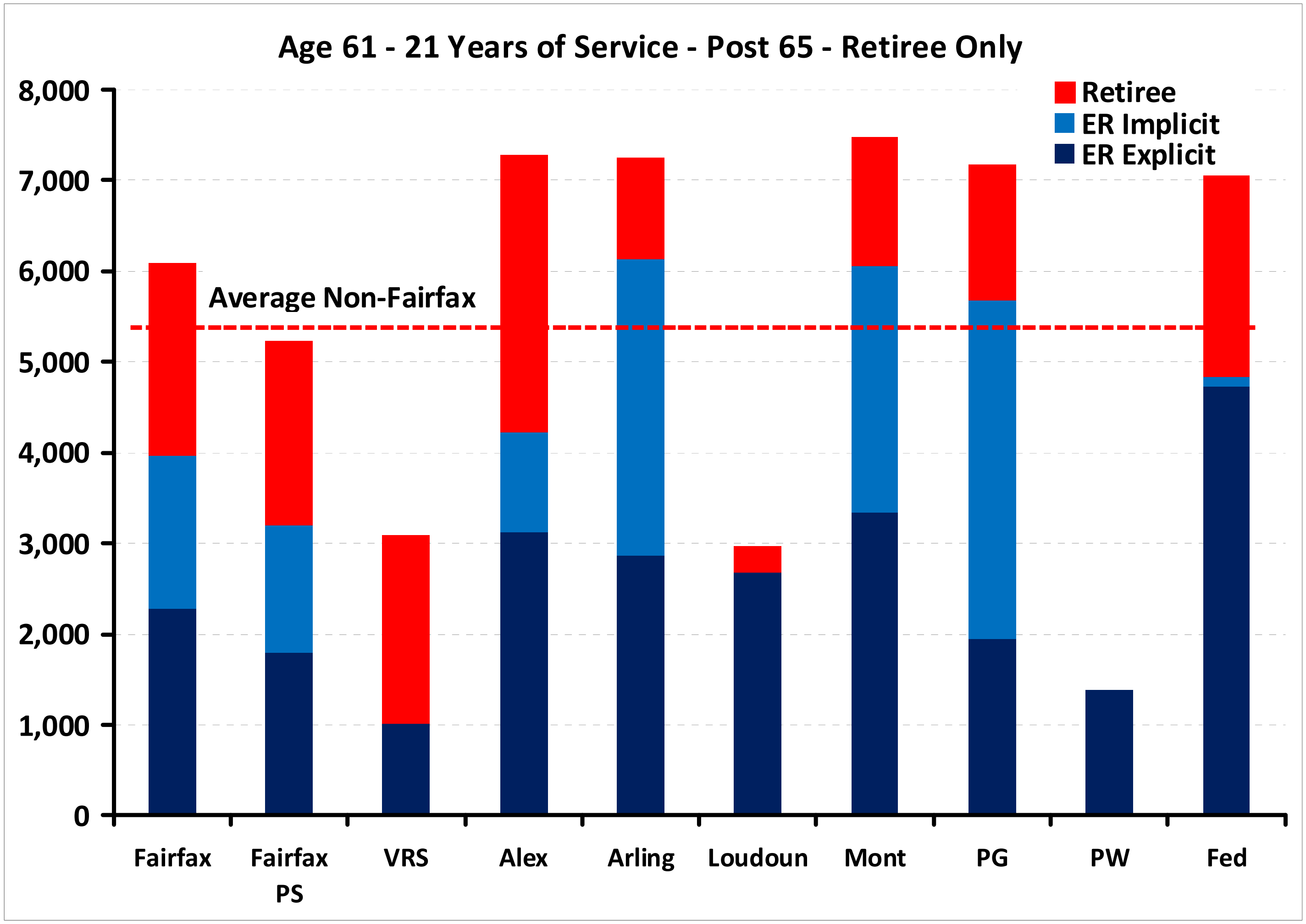
	Fairfax County Government			Prince William County Government		
Plan Type	CIGNA OAP High Plan			Anthem KeyCare Enhanced PPO		
	Total	Ret $ Cont	Ret % Cont	Total	Ret $ Cont	Ret % Cont
Single	$537.17	$317.17	59%	$458.44	$320.94	70%
Retiree + Ch	$1,047.50	$827.50	79%	$823.24	$685.74	83%
Retiree + SP	$1,047.50	$827.50	79%	$960.76	$823.26	86%
Family	$1,563.12	$1,343.12	86%	$1,373.70	$1,236.20	90%
Medicare	$367.00	$147.00	40%	Individual market	Individual Market Cost - $137.50 = Retiree $ Cont	Varies by market
1 with Medicare; 1 without Medicare	$896.97	$676.97	75%			
2 With Medicare	$726.79	$506.79	70%			
Comments on Development of Retiree's $ Contribution	$220 fixed subsidy, assuming 25 years of service			$137.50 fixed subsidy, assuming 25 years of service		

Appendix E - Numeric Results for Retiree Health Plans

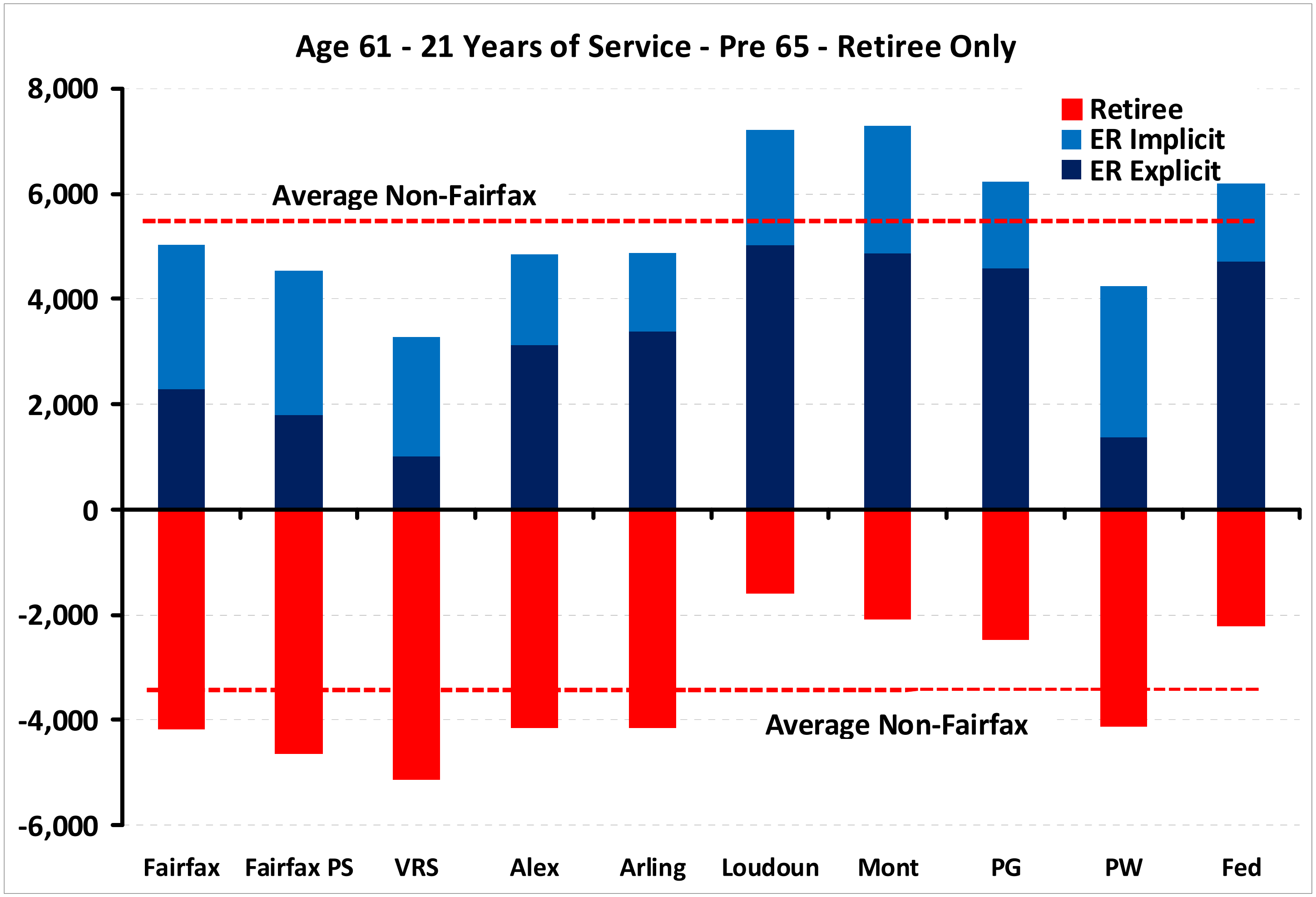
Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 61/21 – Pre 65



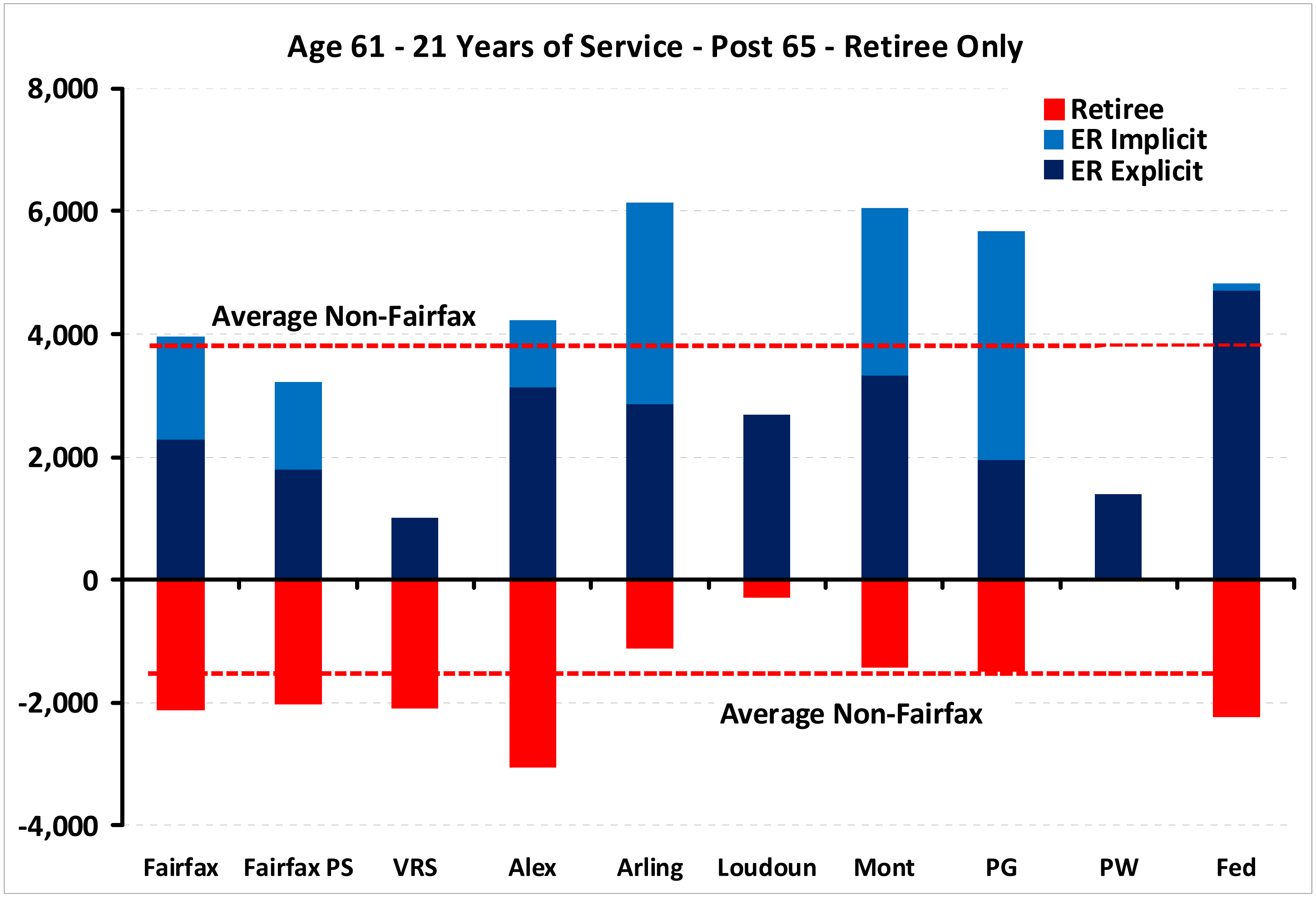
Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 61/21 – Post 65



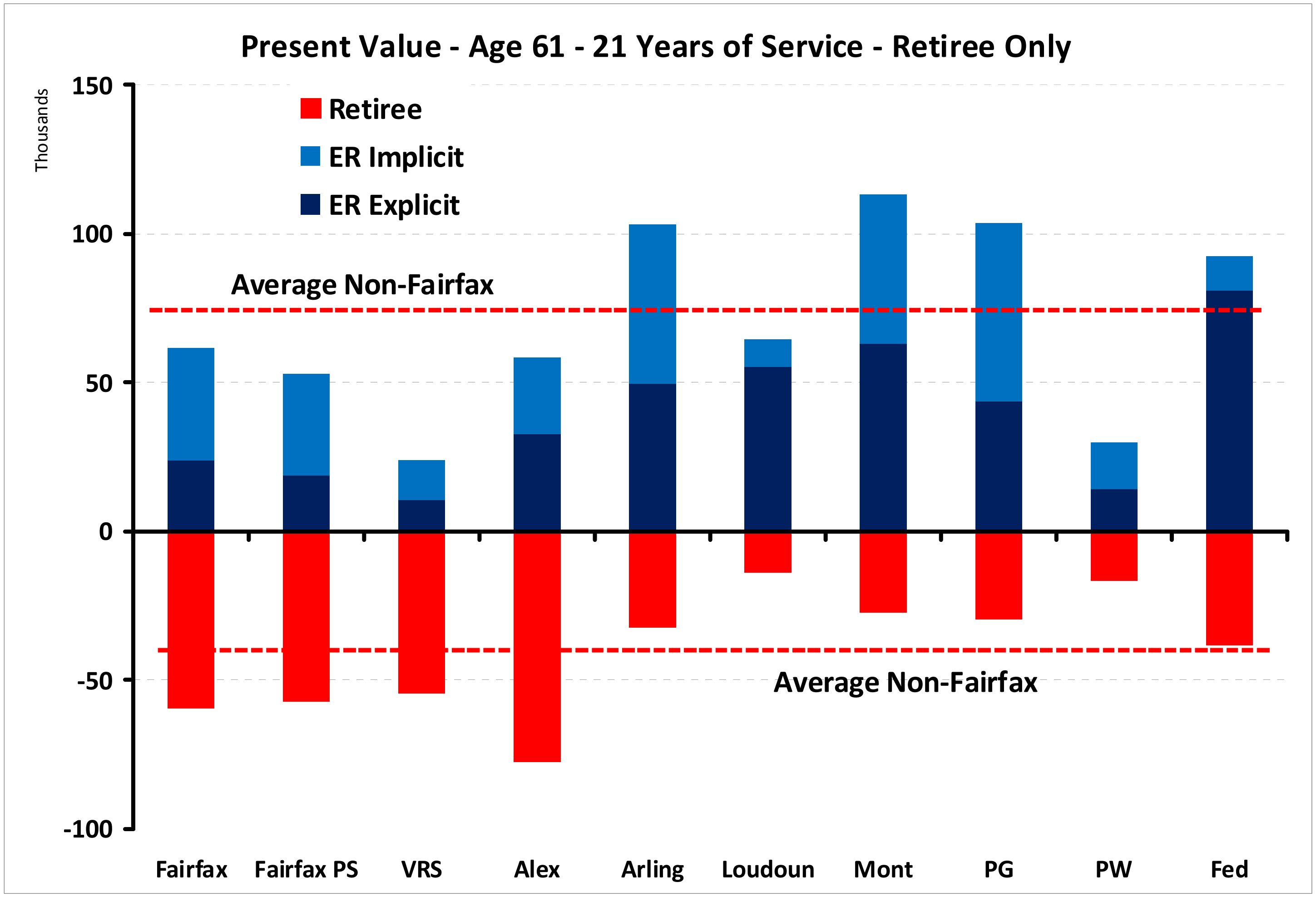
Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 61/21 – Pre 65 – Employer/Employee Split



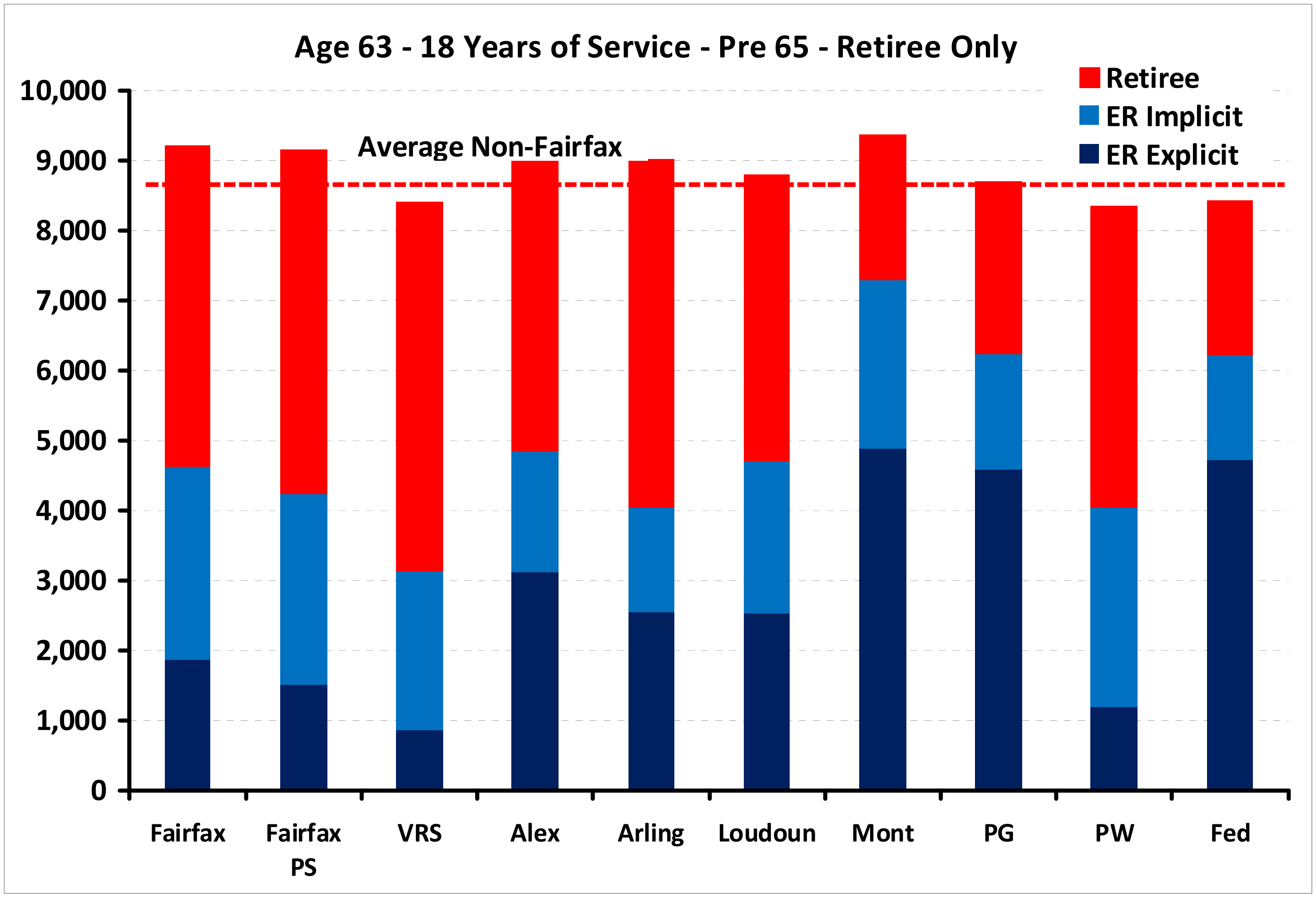
Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 61/21 – Post 65 – Employer/Employee Split



Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 61/21 – Present Values



Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 63/18 – Pre 65



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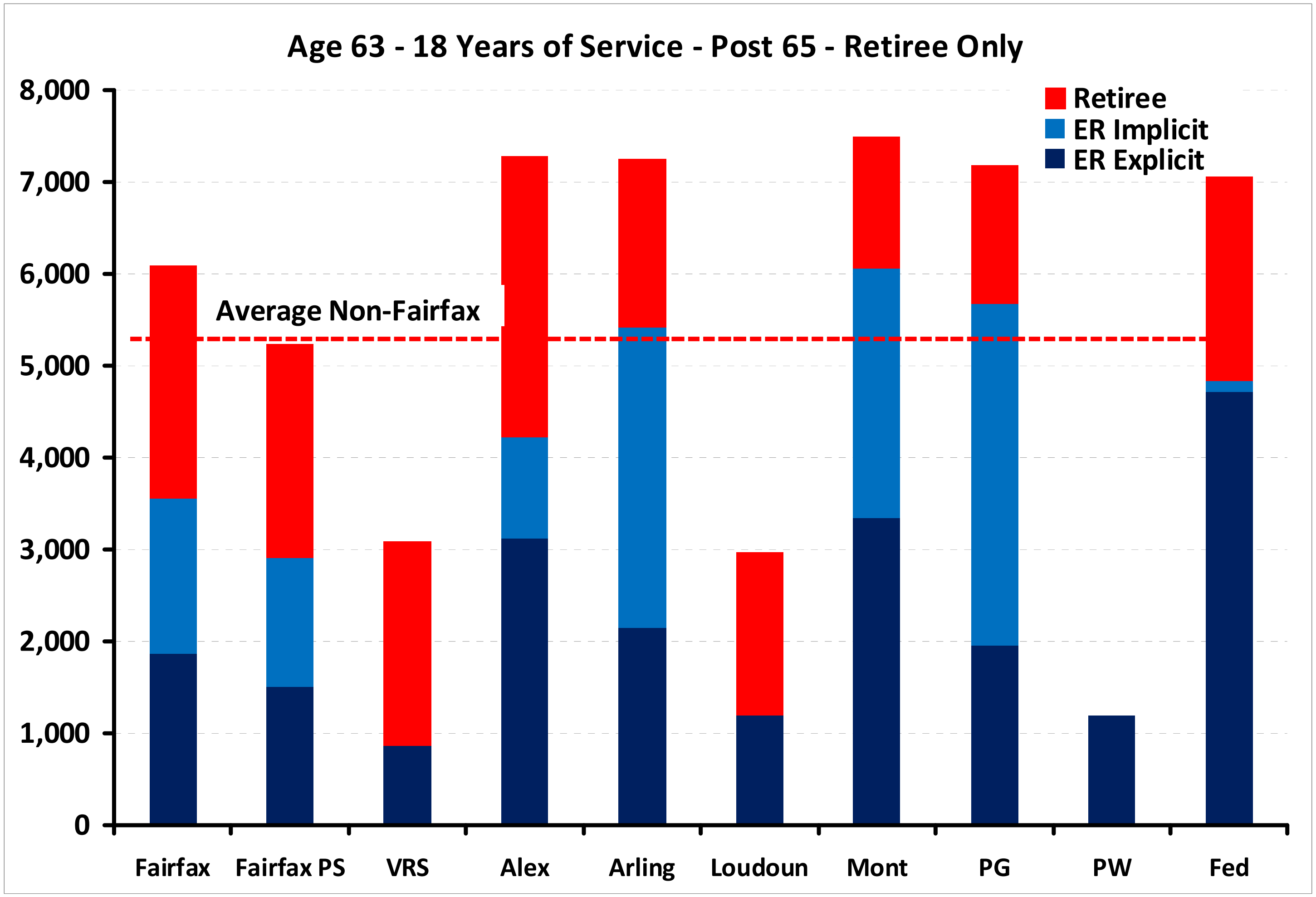
Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 63/18 – Post 65



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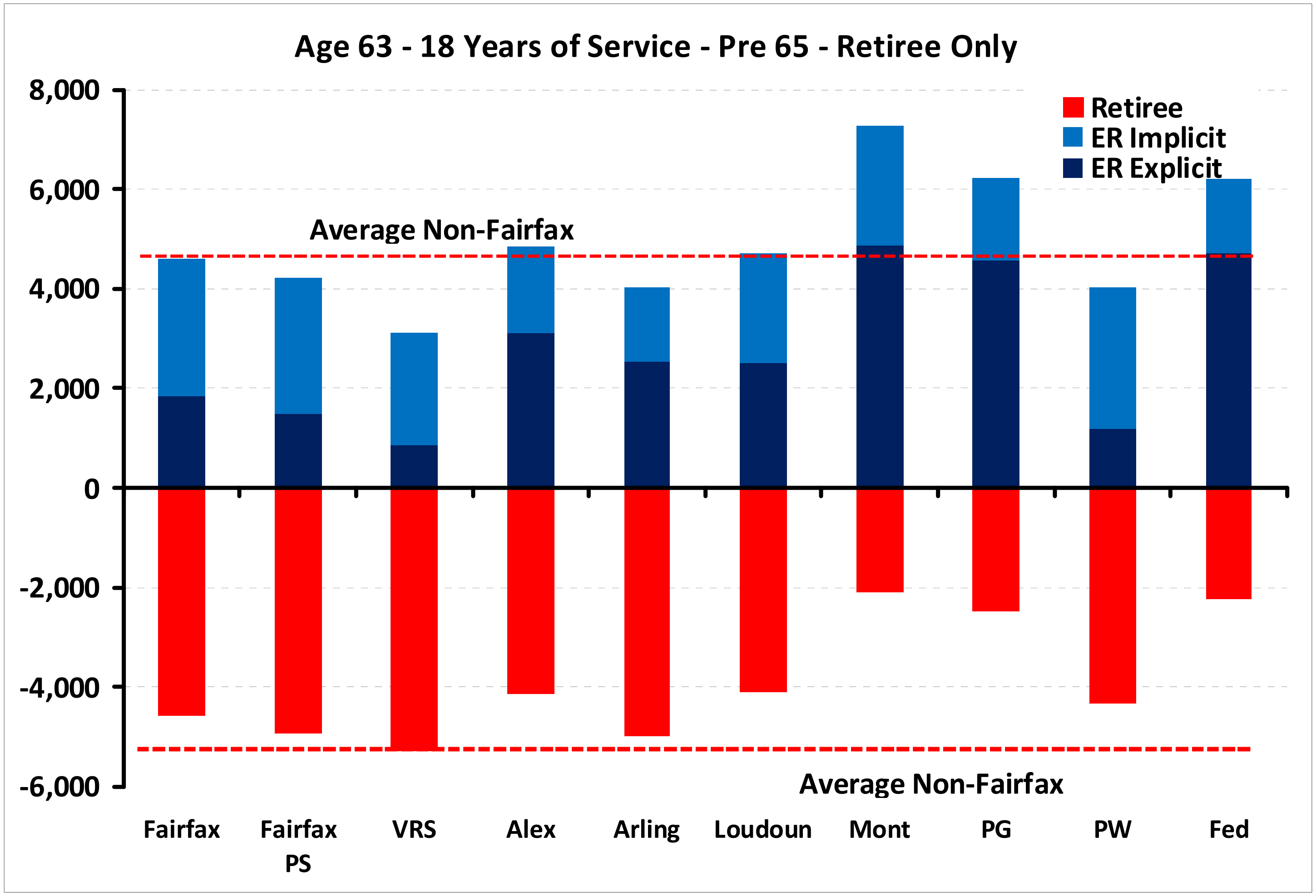
Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 63/18 – Pre 65 – Employer/Employee Split



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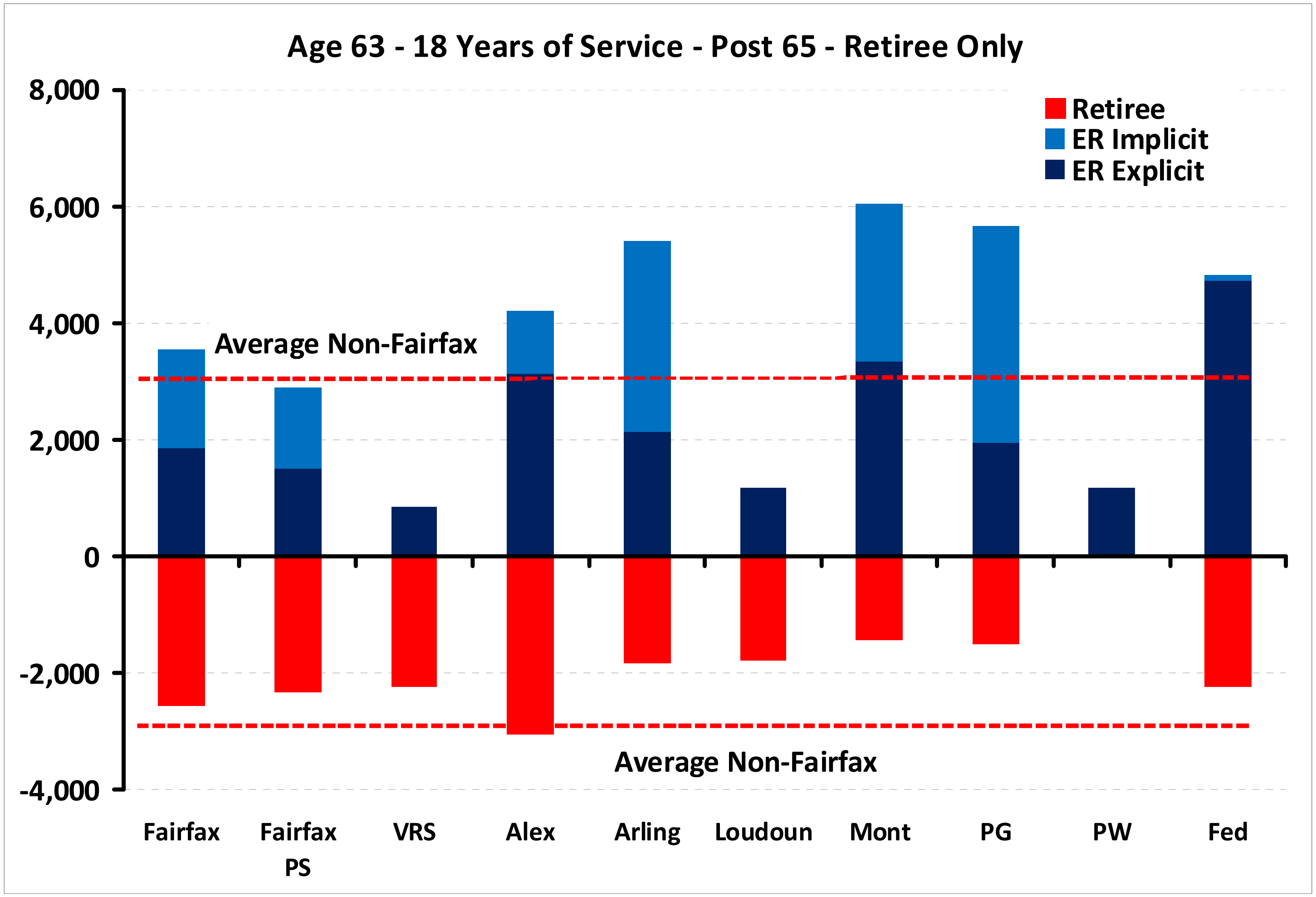
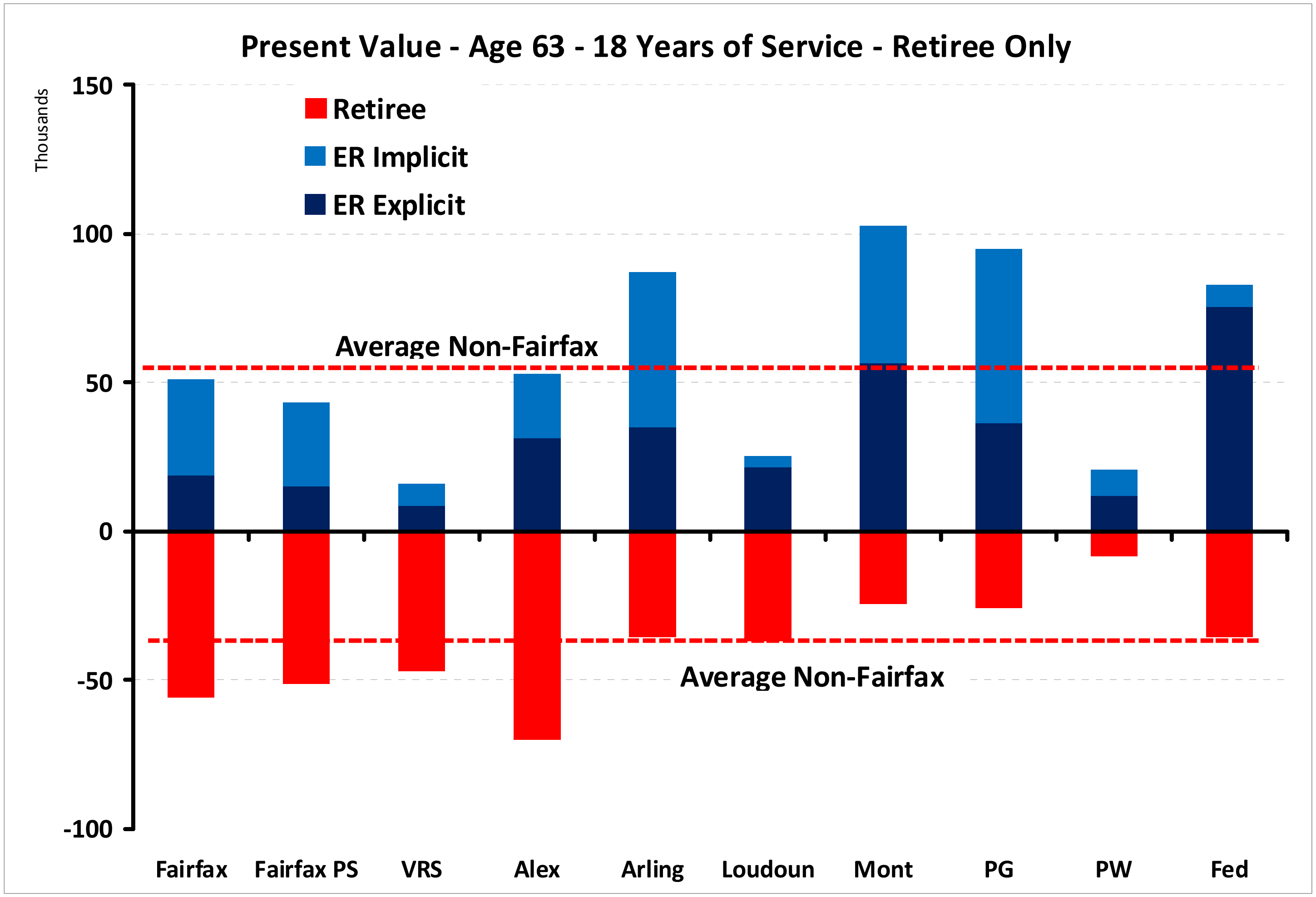
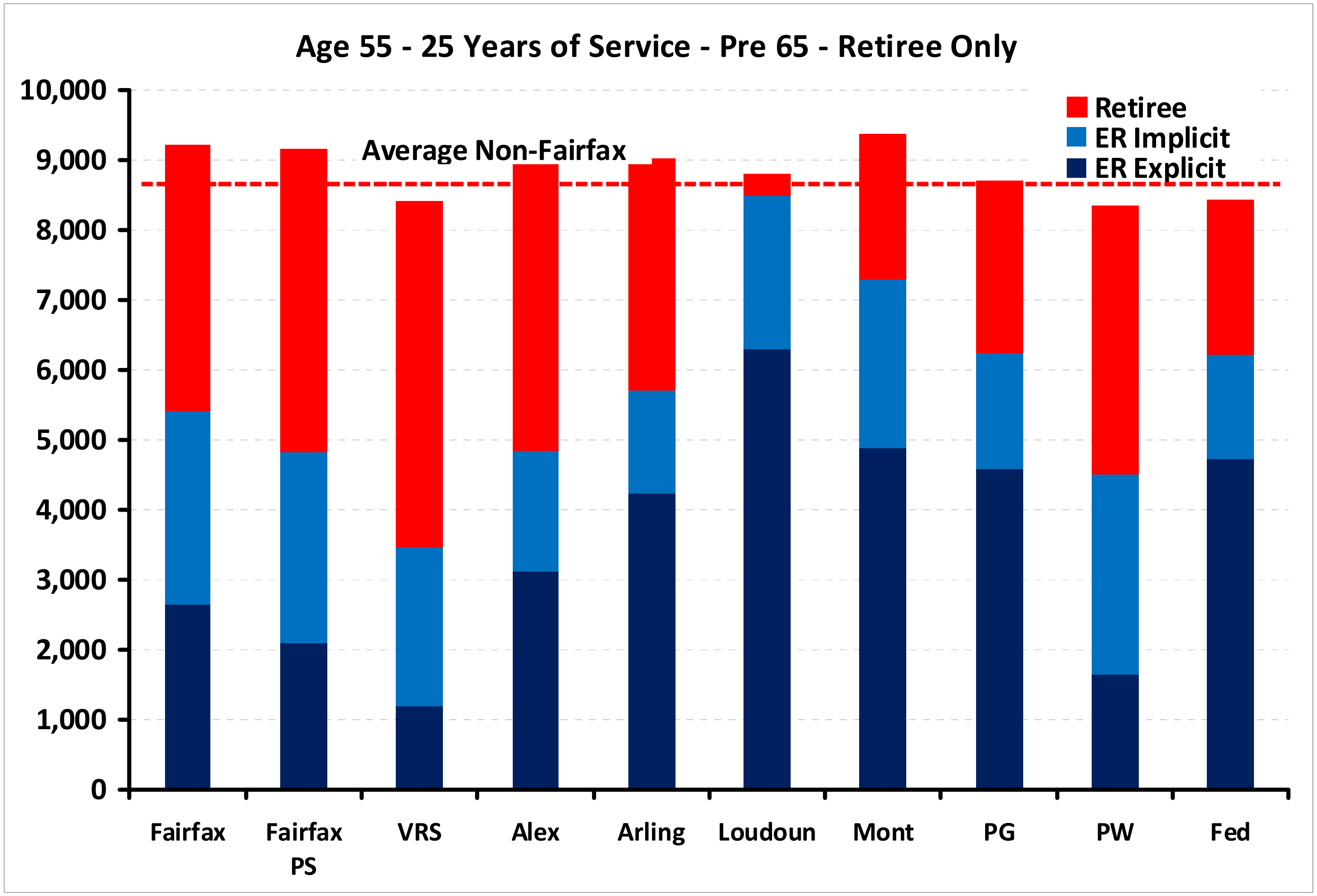
Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 63/18 – Post 65 – Employer/Employee Split



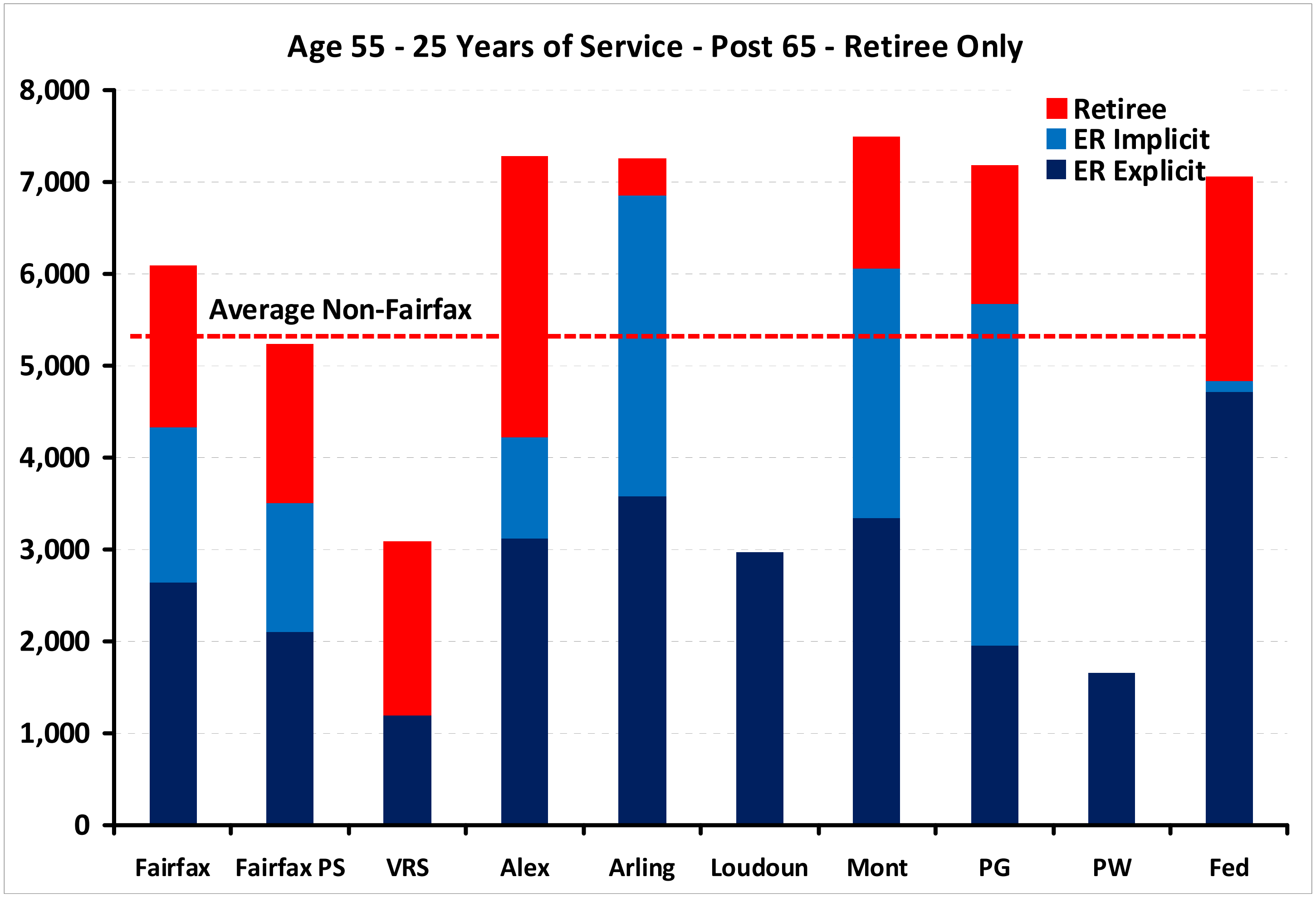
Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 63/18 – Present Values



Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 55/25 – Pre 65



Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 55/25 – Post 65



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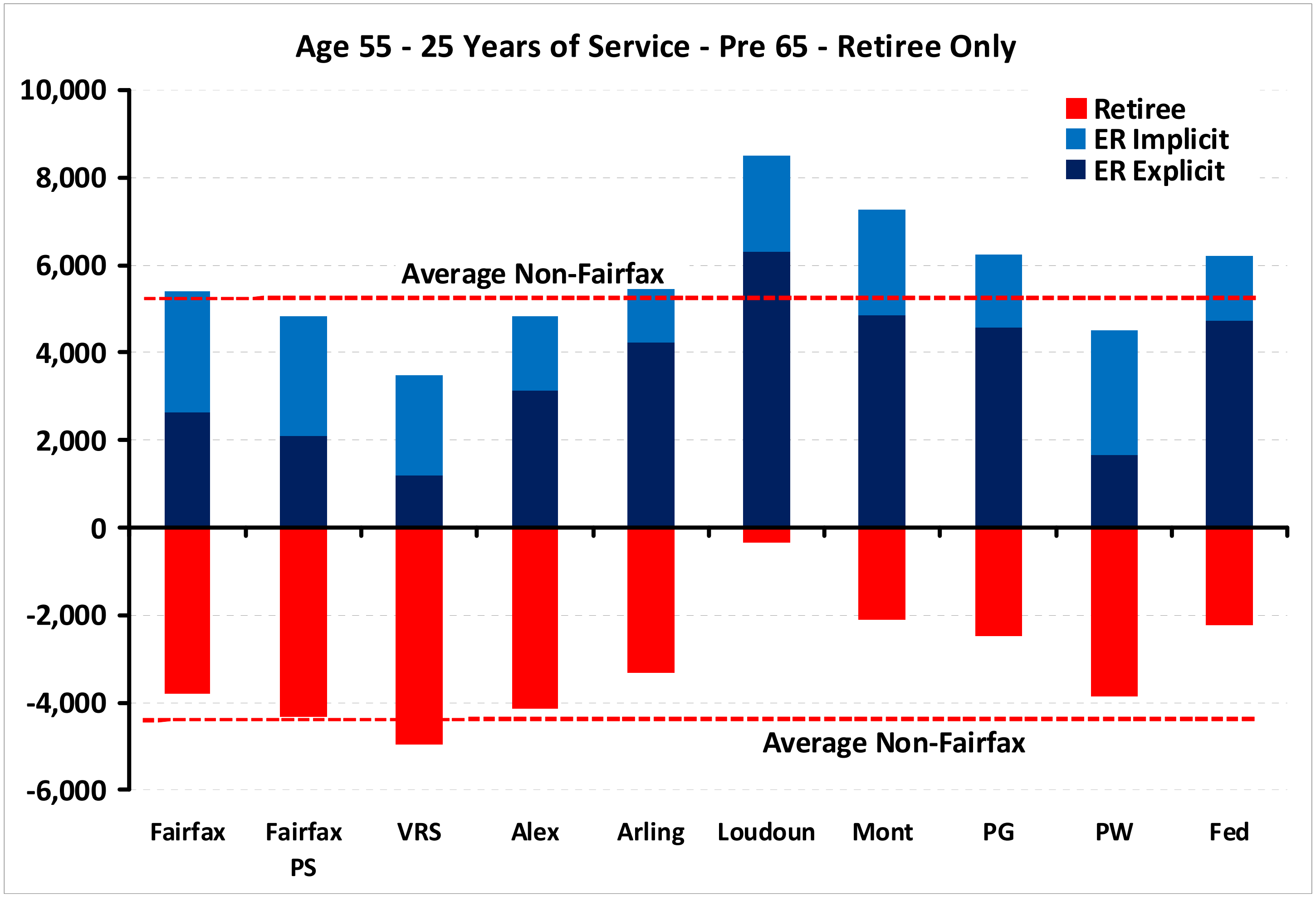
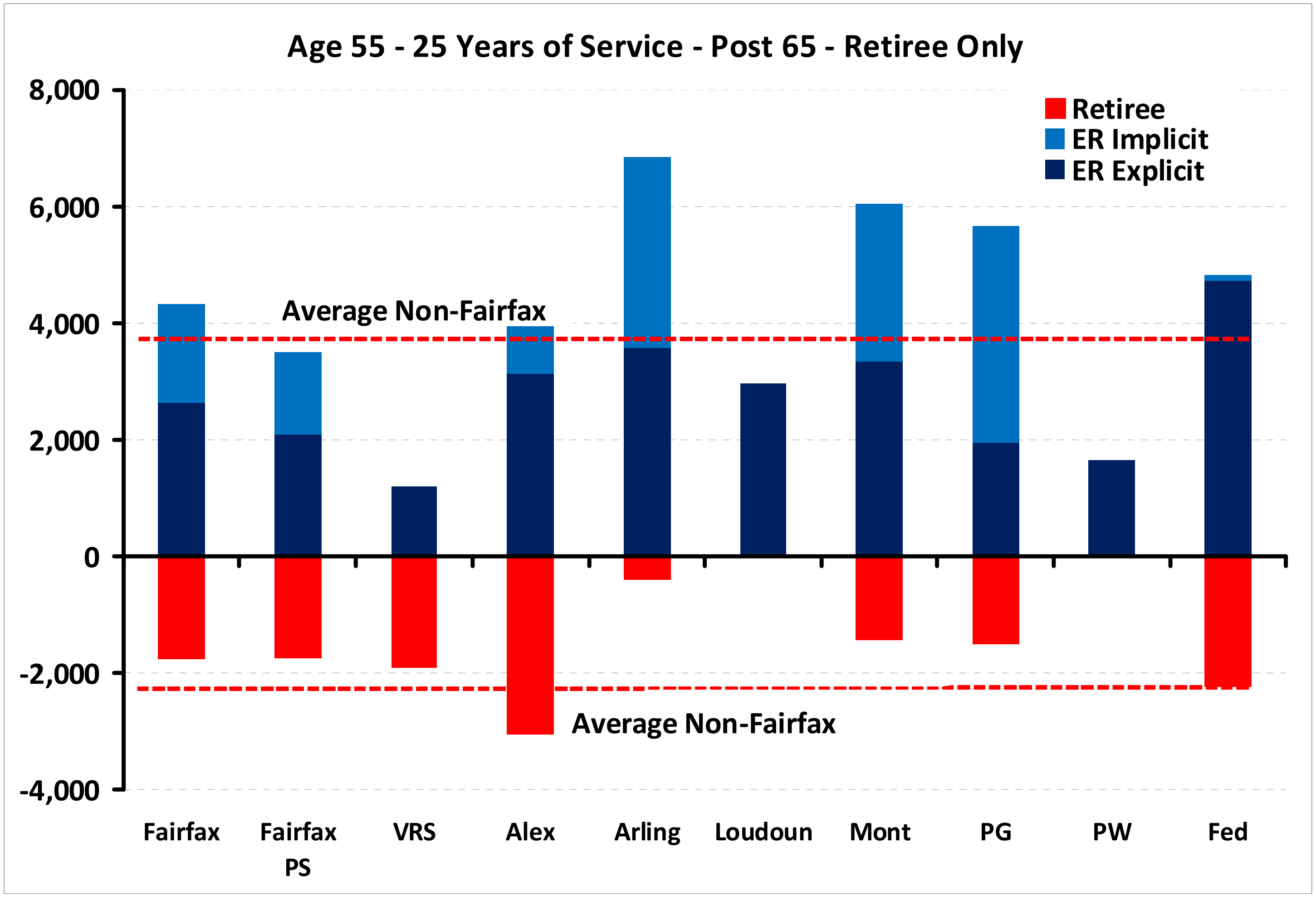
Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 55/25 – Pre 65 – Employer/Employee Split



Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 55/25 – Post 65 – Employer/Employee Split



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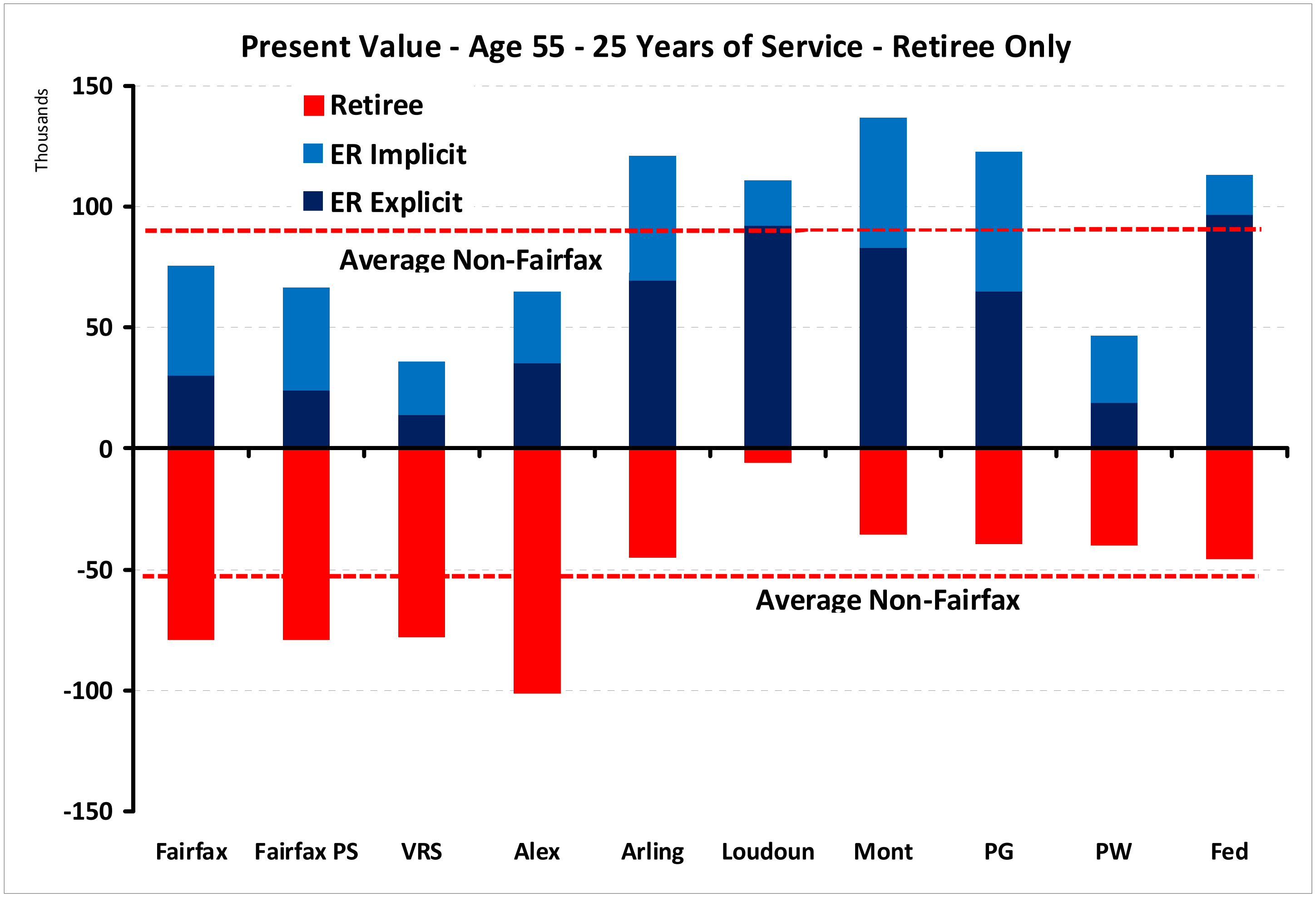
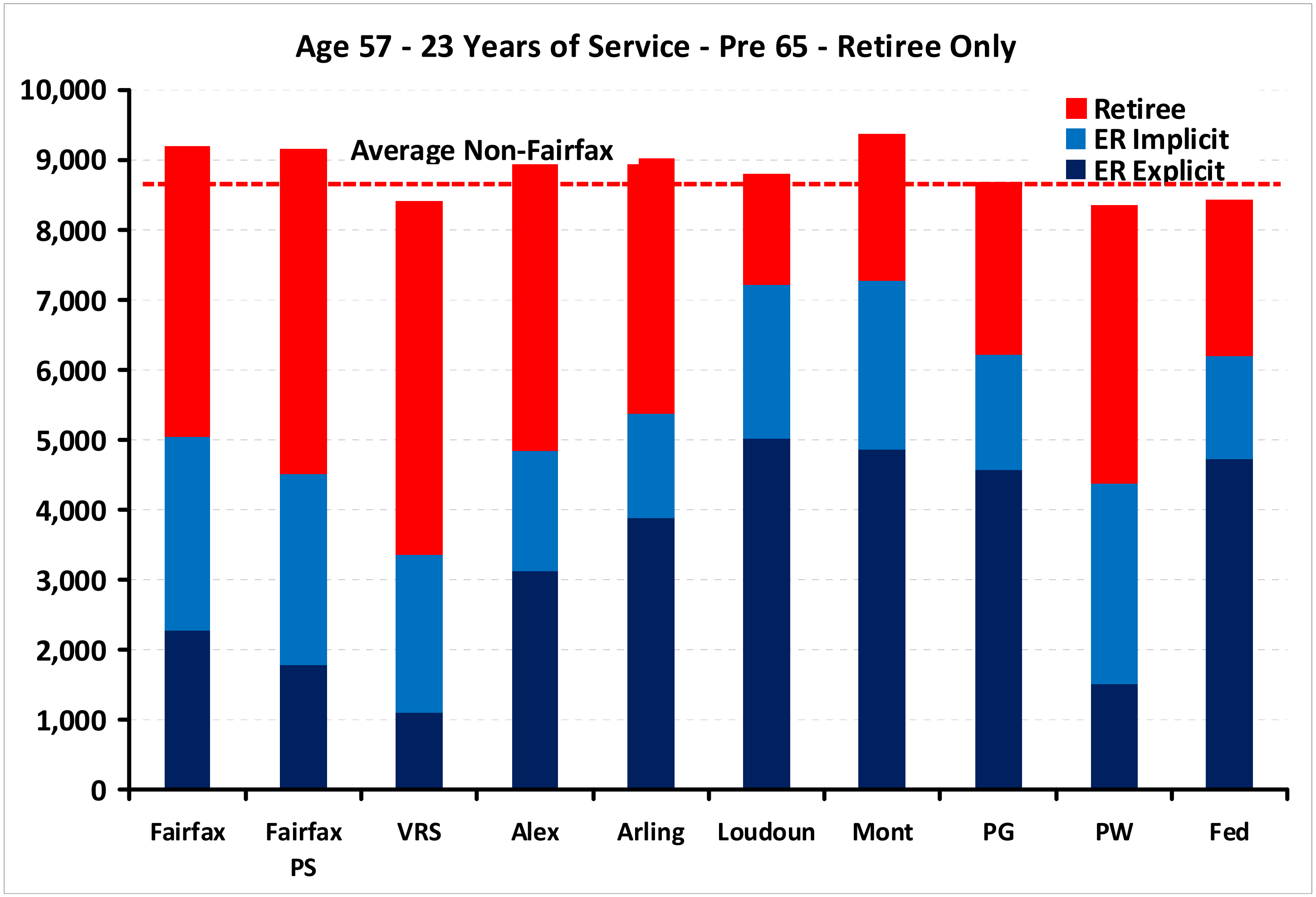
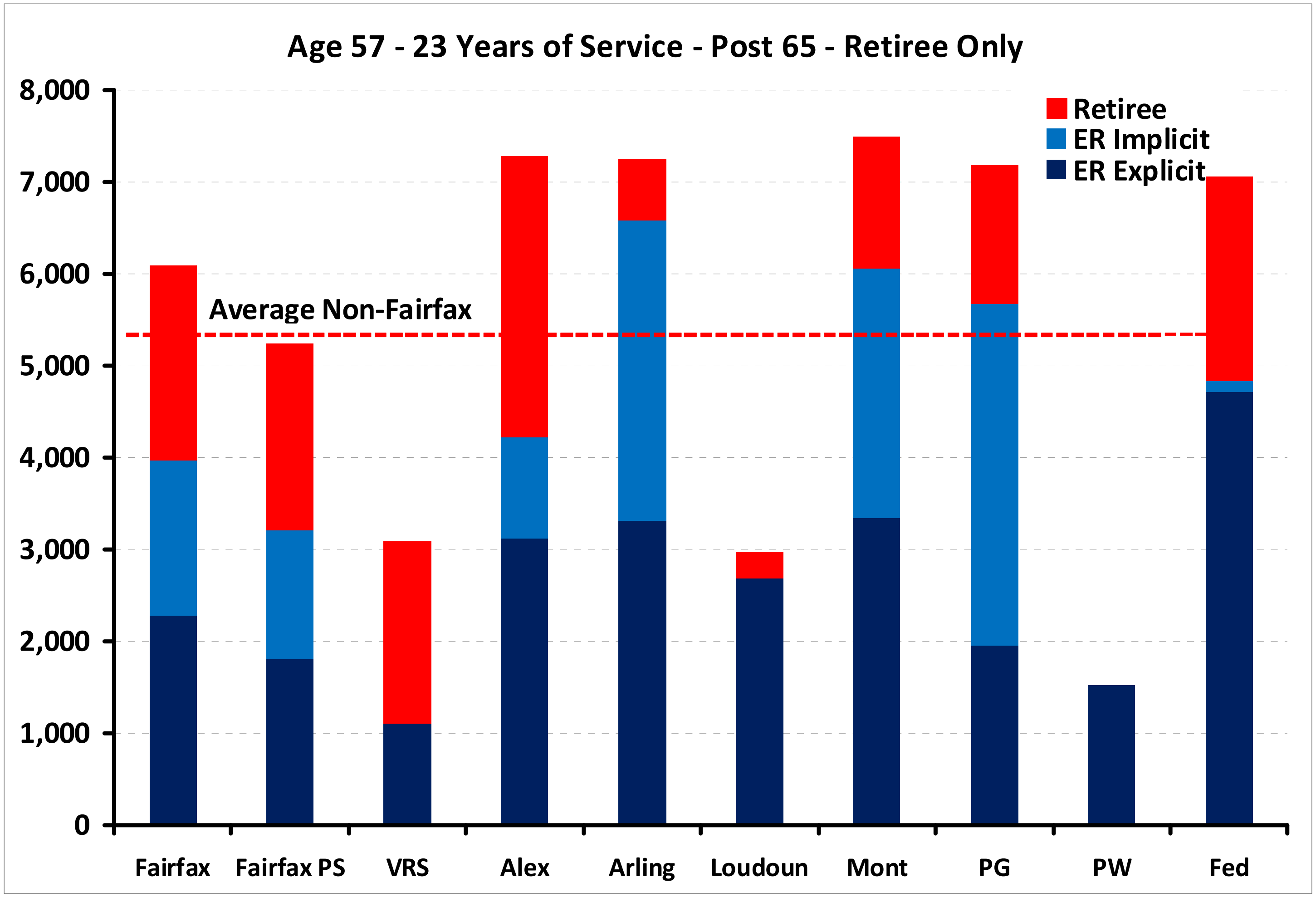
Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 55/25 – Present Values



Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 57/23 – Pre 65



Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 57/23 – Post 65



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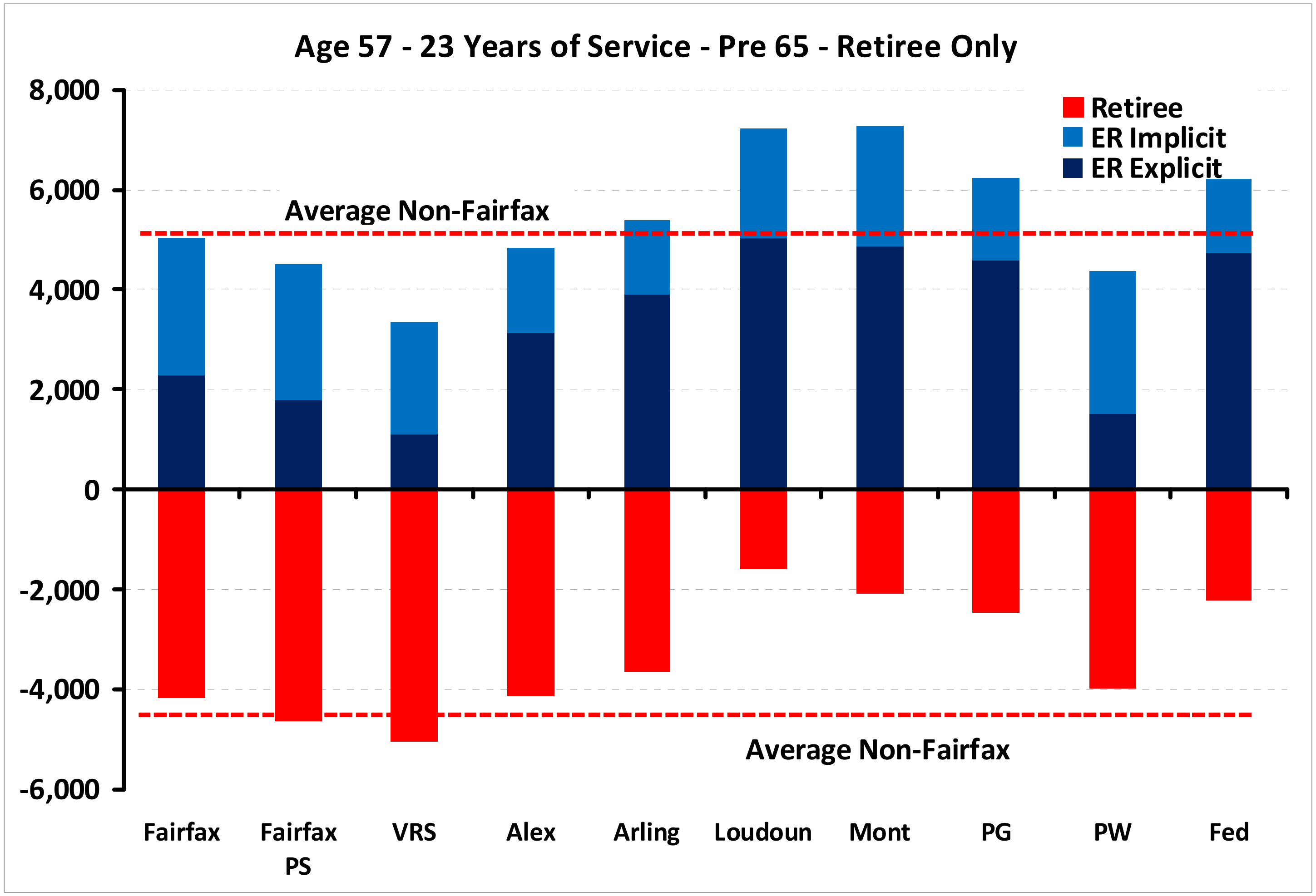
Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 57/23 – Pre 65 – Employer/Employee Split



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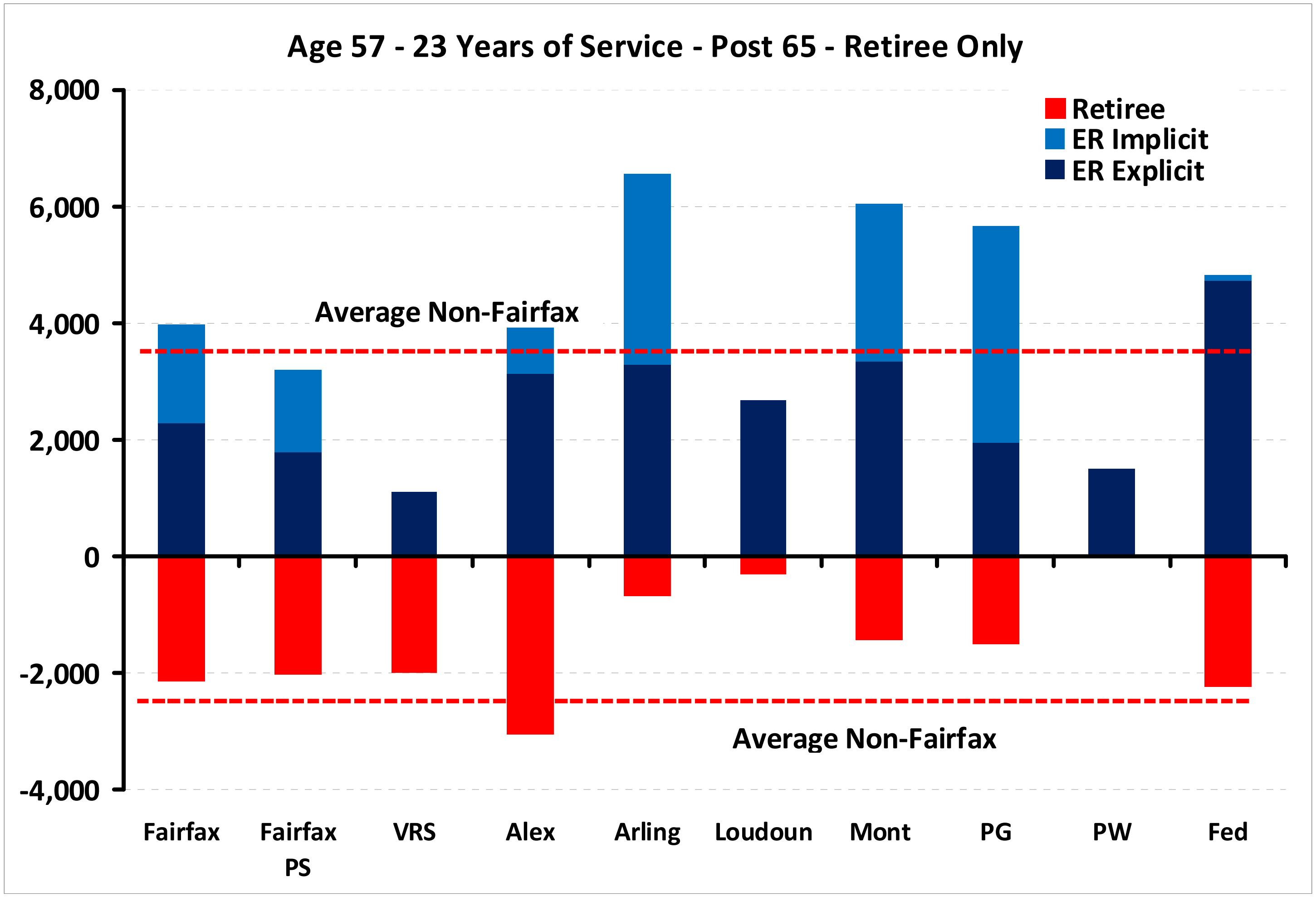
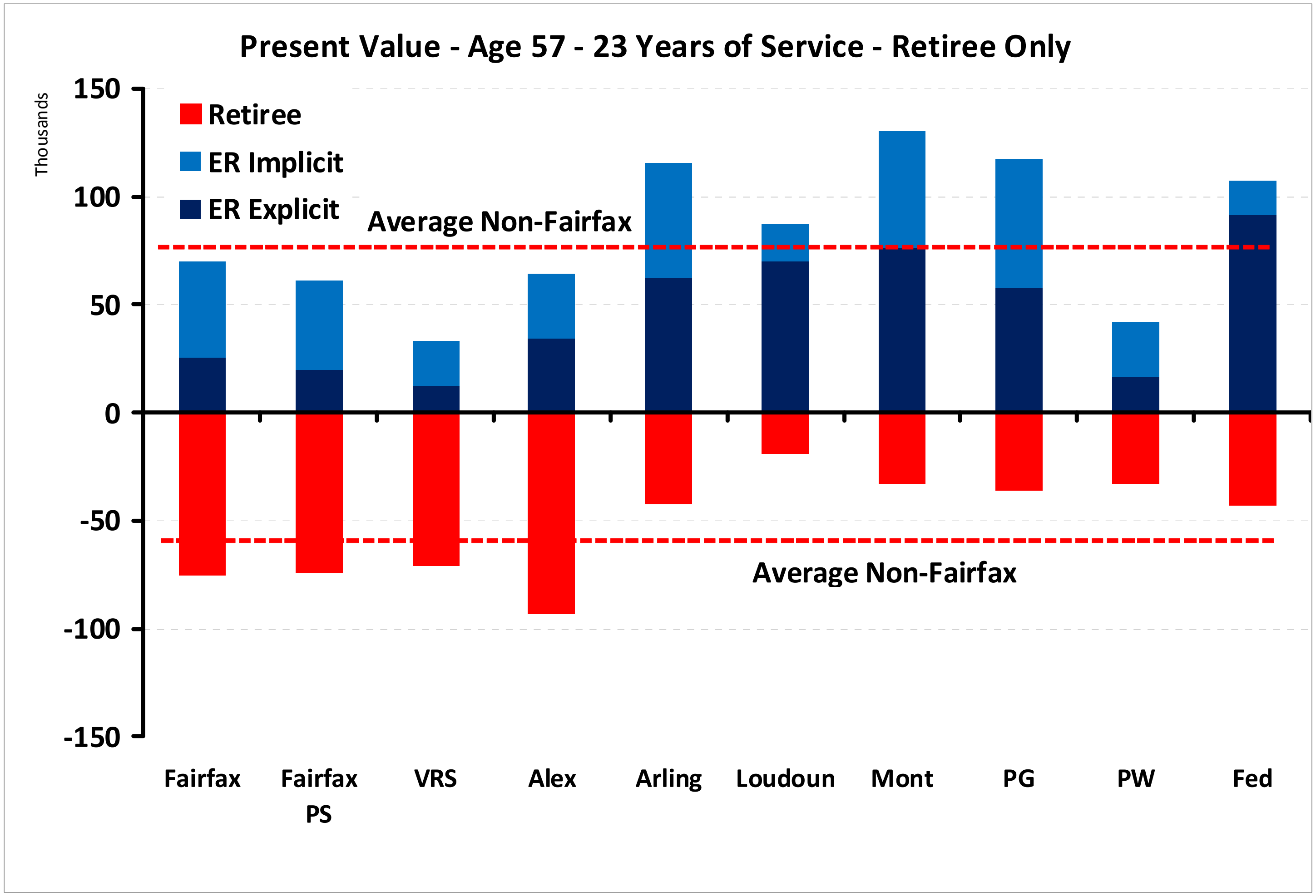
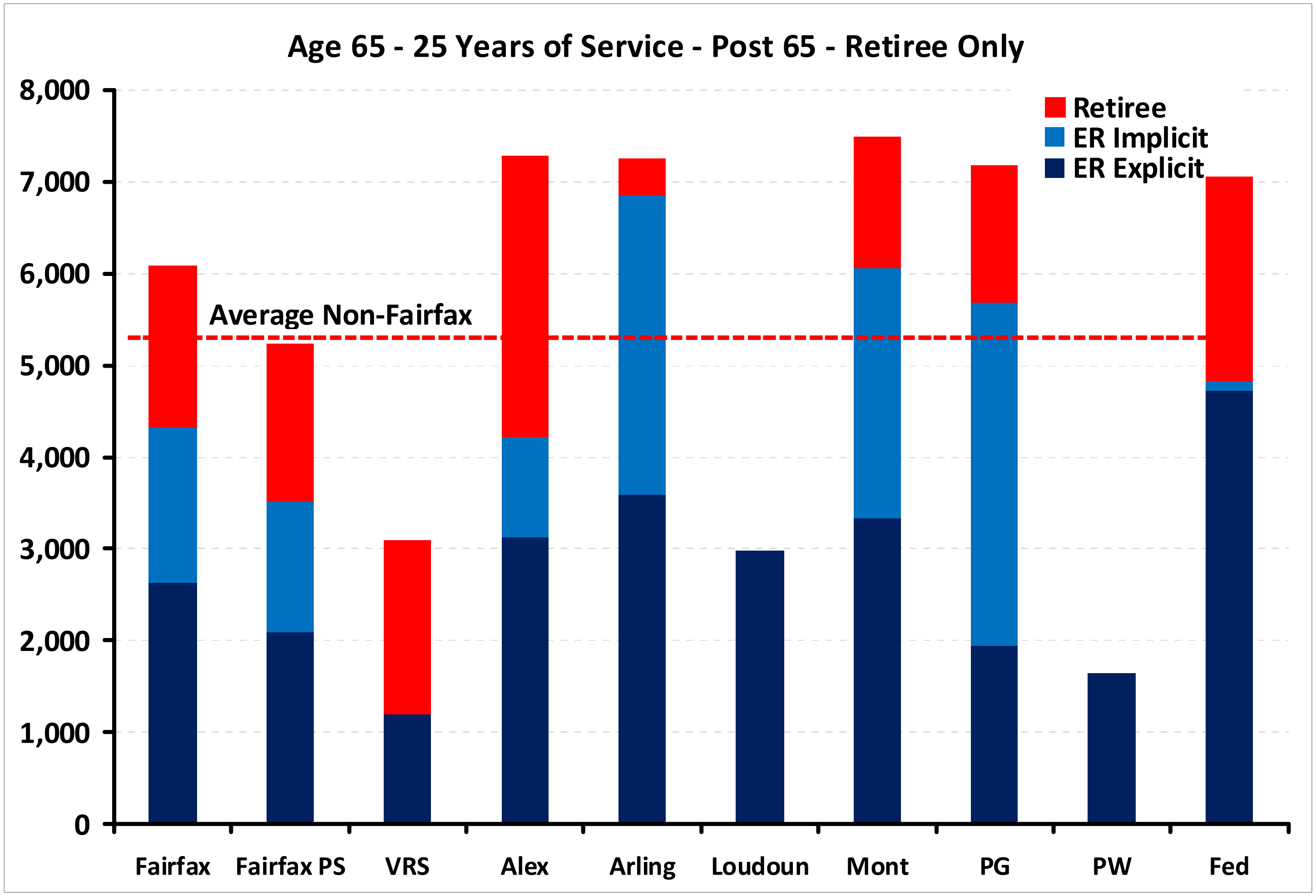
Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 57/23 – Post 65 – Employer/Employee Split



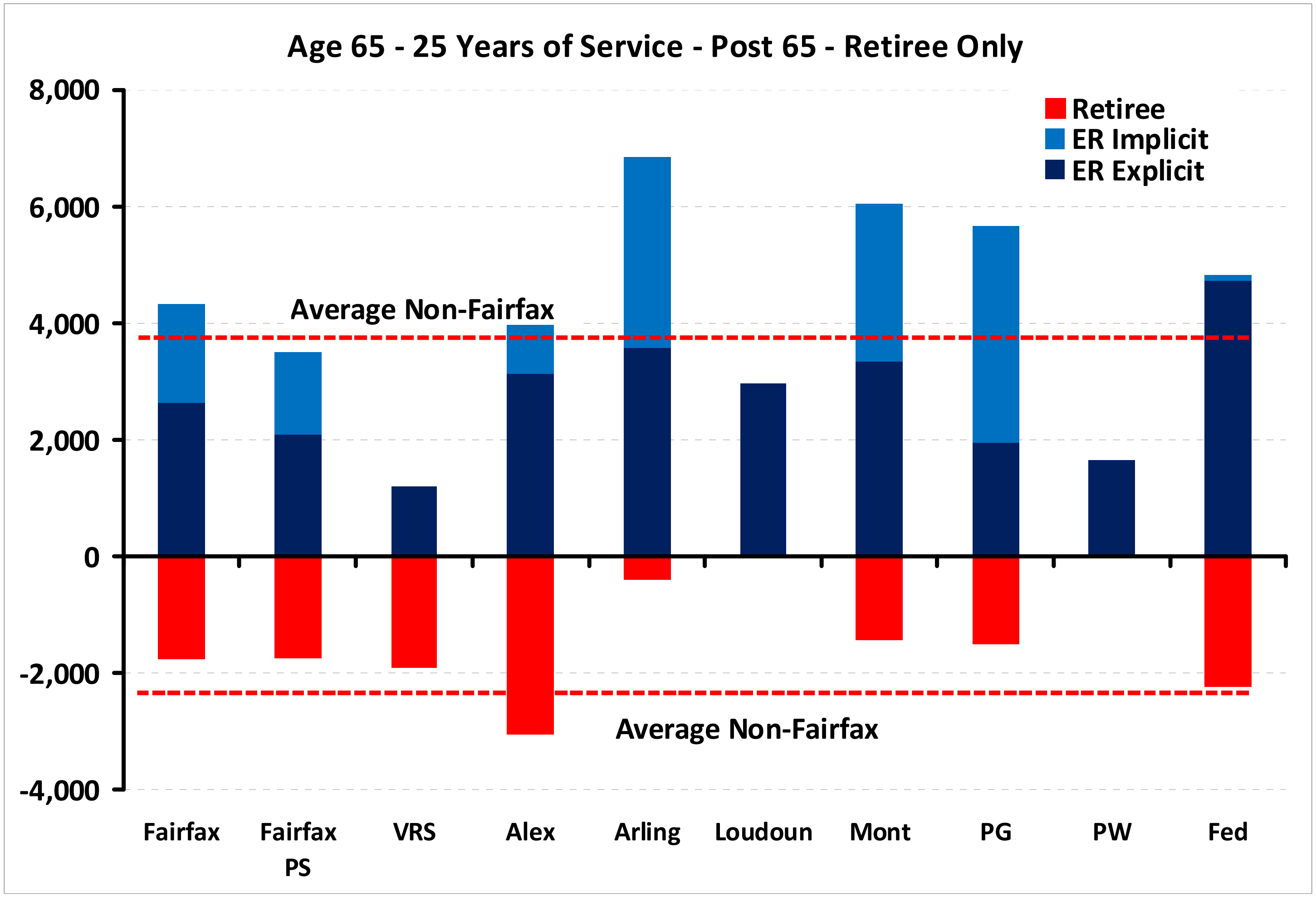
Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 57/23 – Present Values



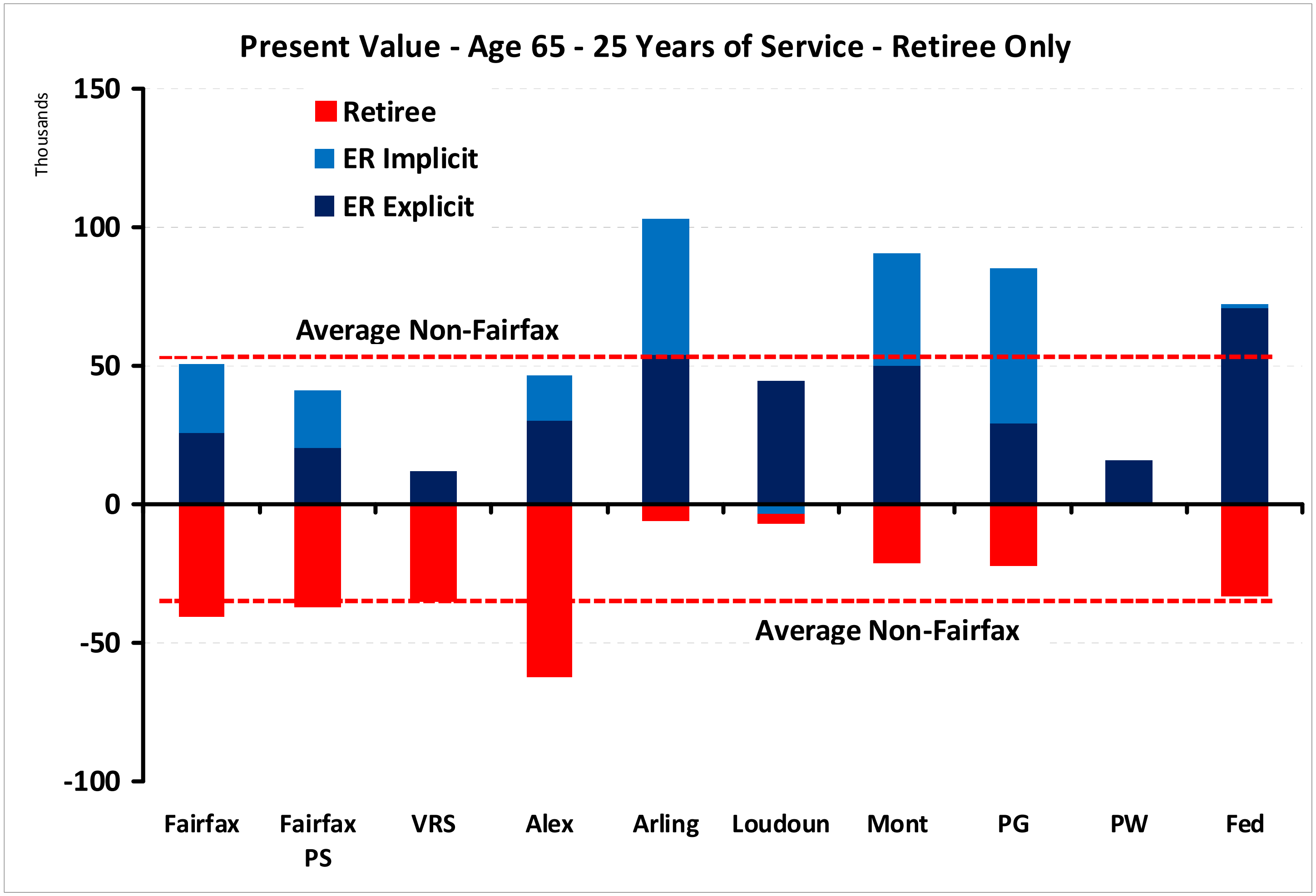
Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 65/25 – Post 65



Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 65/25 – Post 65 – Employer/Employee Split



Appendix E - Numeric Results for Retiree Health Plans
Employee Plan 65/25 – Present Values



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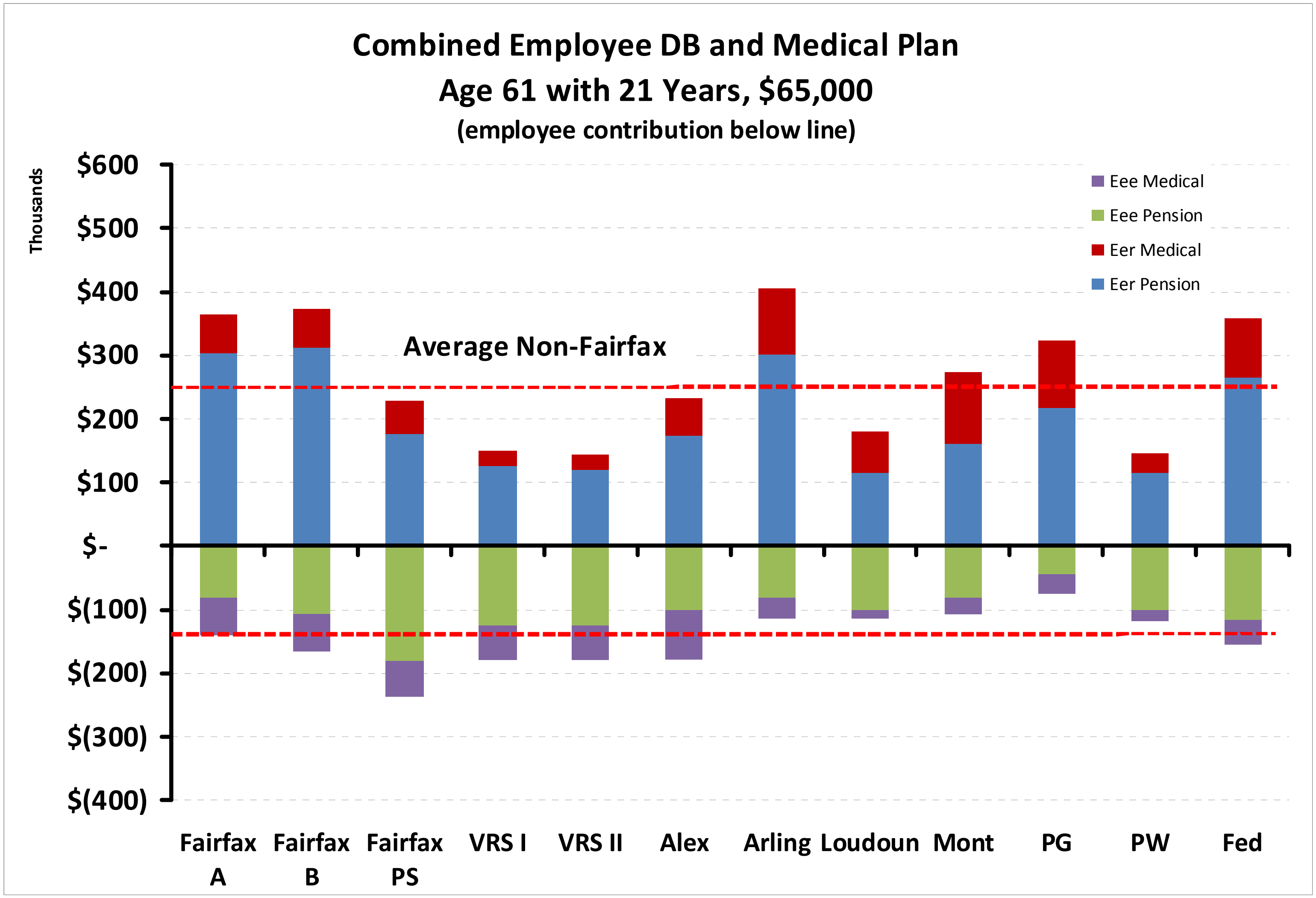
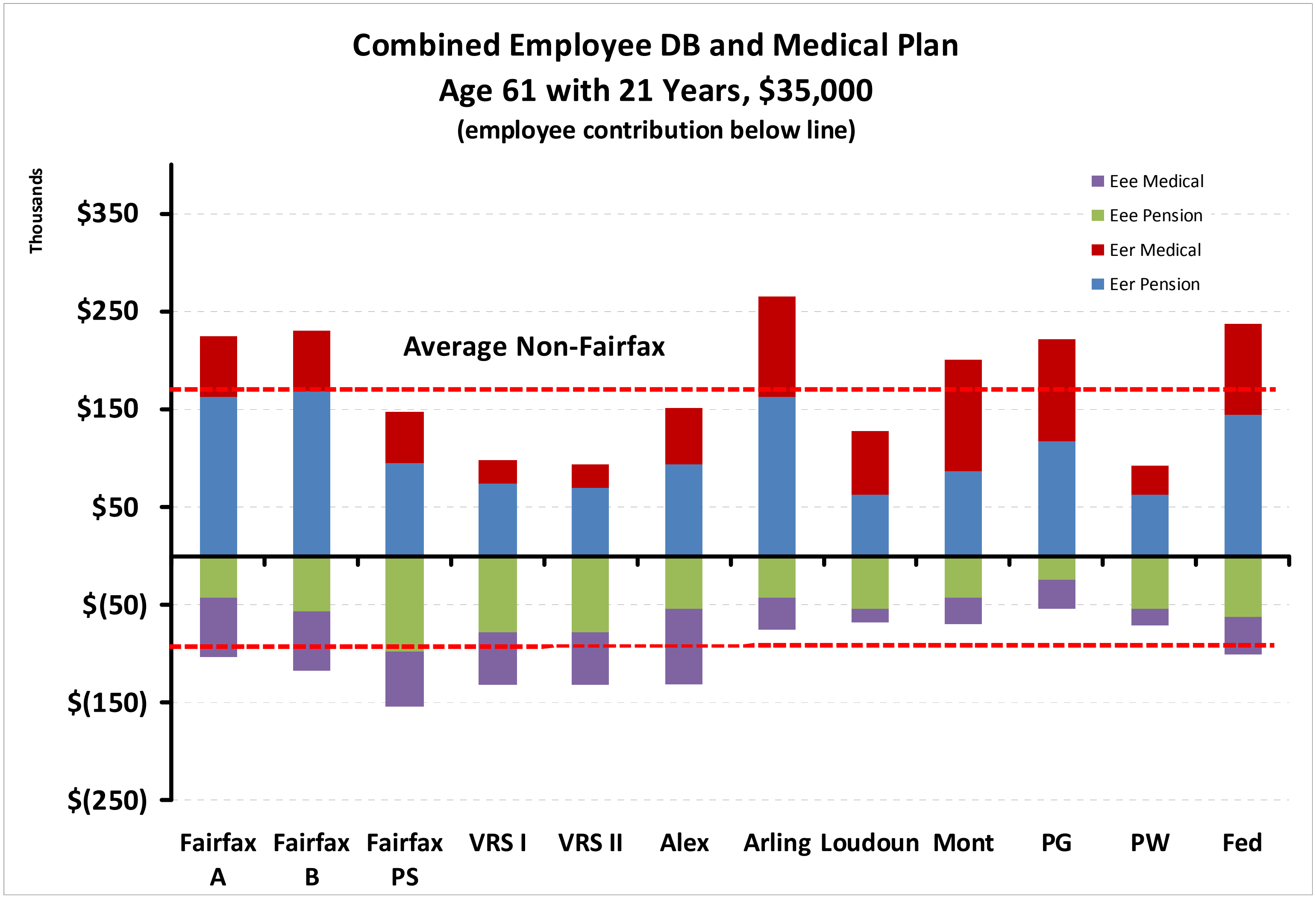
Appendix F – Combined Retirement Income and Retiree Health Plans

Combination	$65,000	$35,000
61/21	2	3
63/18	4	5
55/25	6	7
57/23	8	9
65/25	10	11

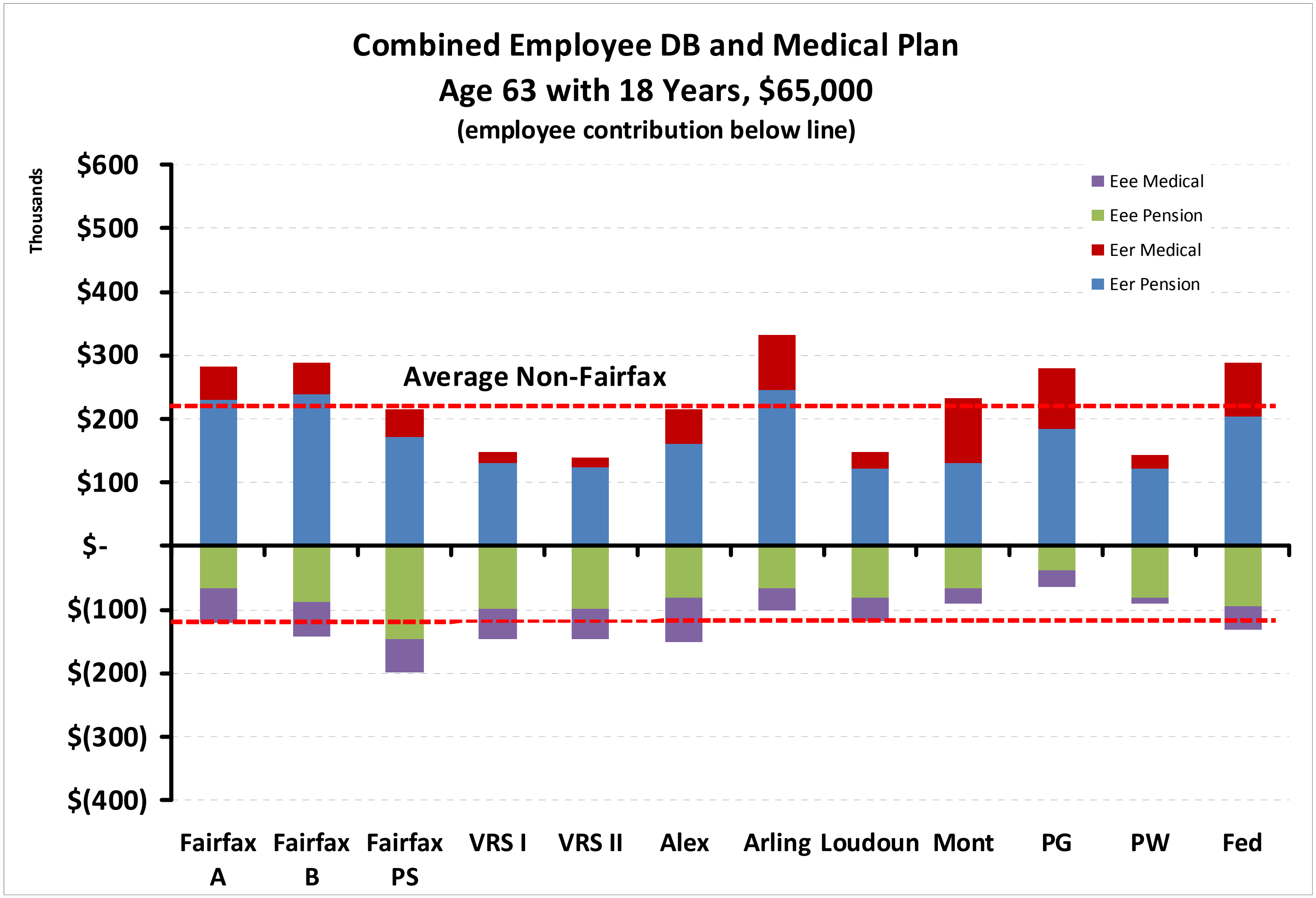
Appendix F – Combined Retirement Income and Retiree Health Plans
Employee Plan 61/21/$65,000



Appendix F – Combined Retirement Income and Retiree Health Plans
Employee Plan 61/21/$35,000



Appendix F – Combined Retirement Income and Retiree Health Plans Employee Plan 63/18/$65,000



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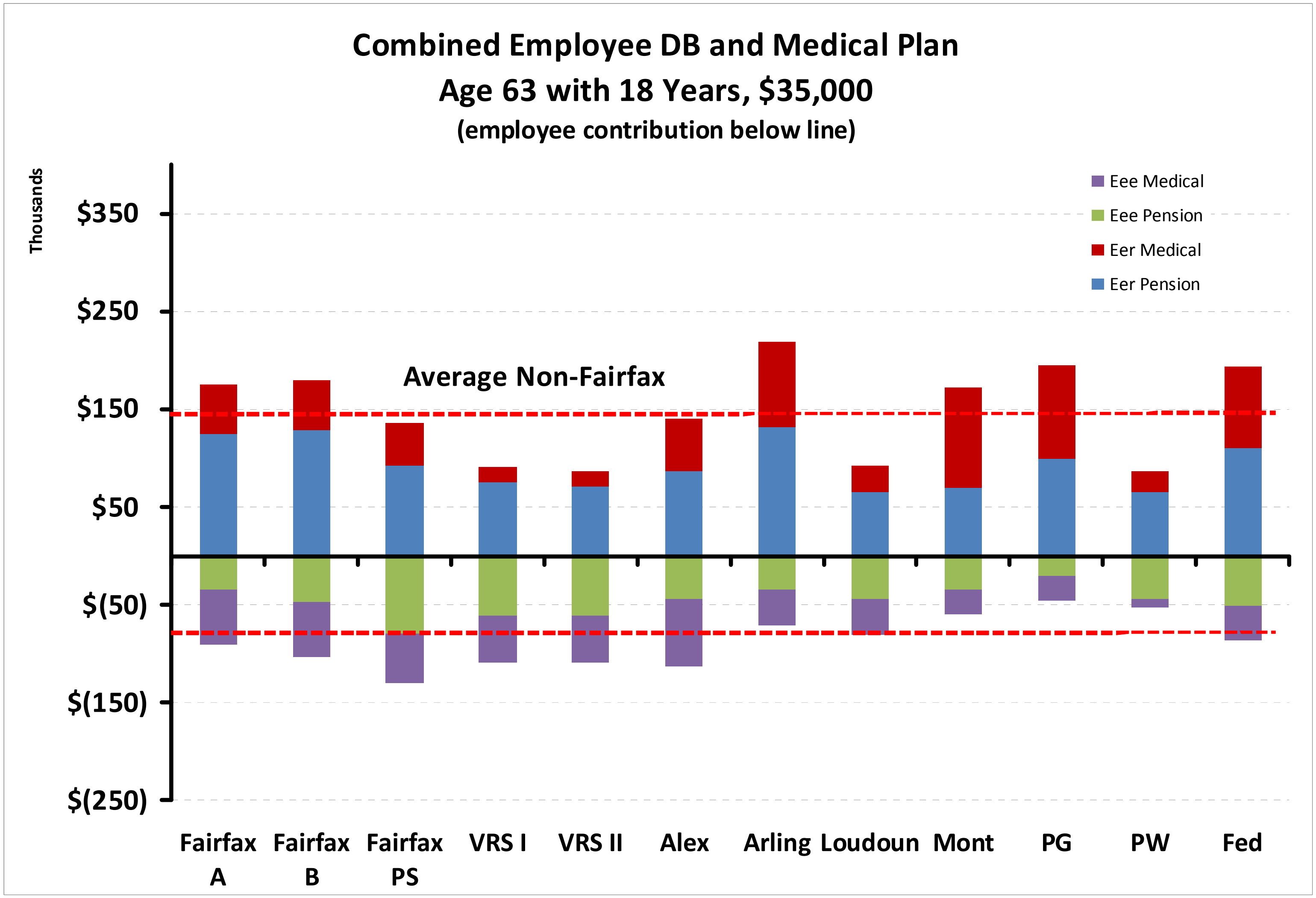
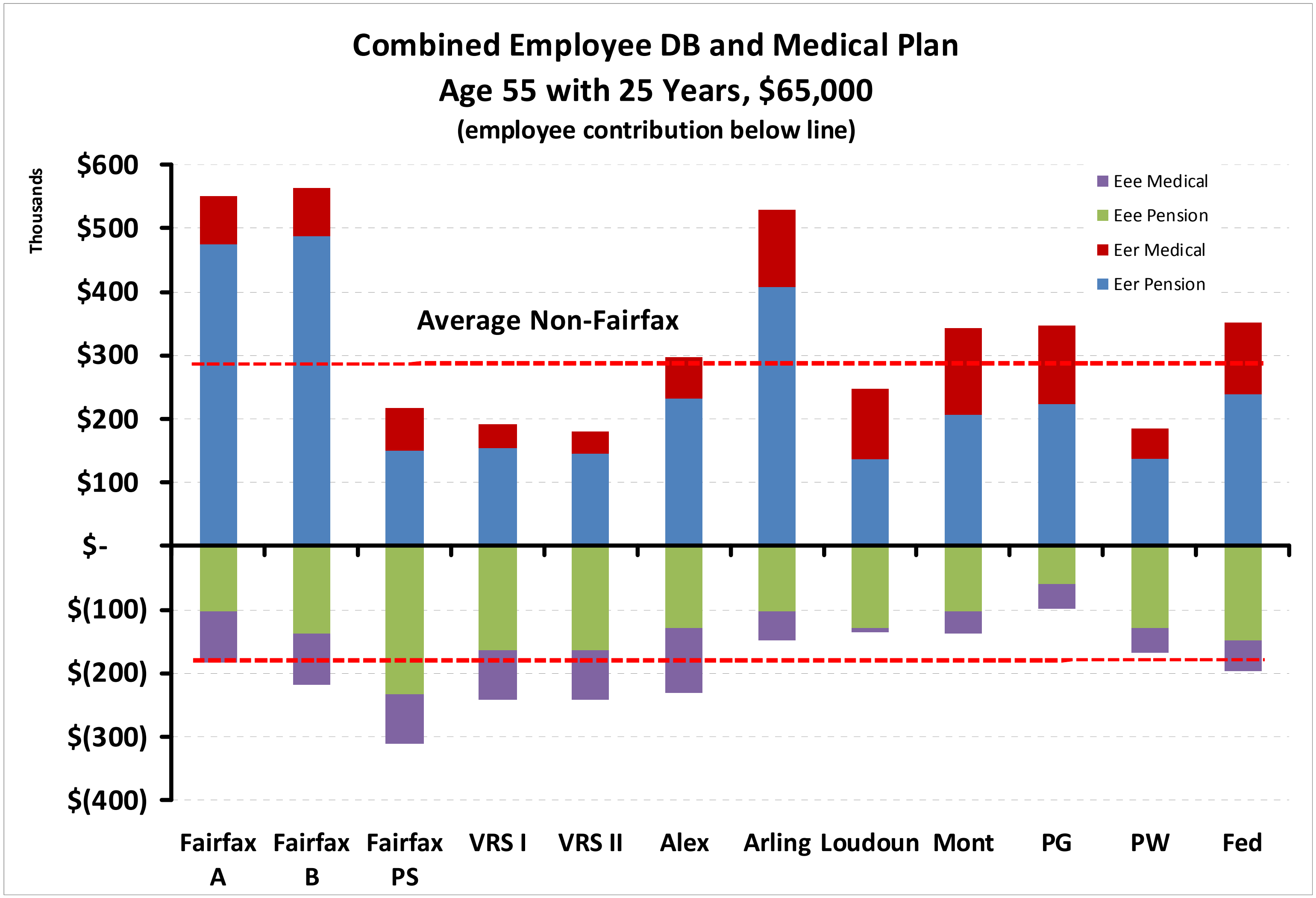
Appendix F – Combined Retirement Income and Retiree Health Plans
Employee Plan 63/18/$35,000



Appendix F – Combined Retirement Income and Retiree Health Plans Employee Plan 55/25/$65,000



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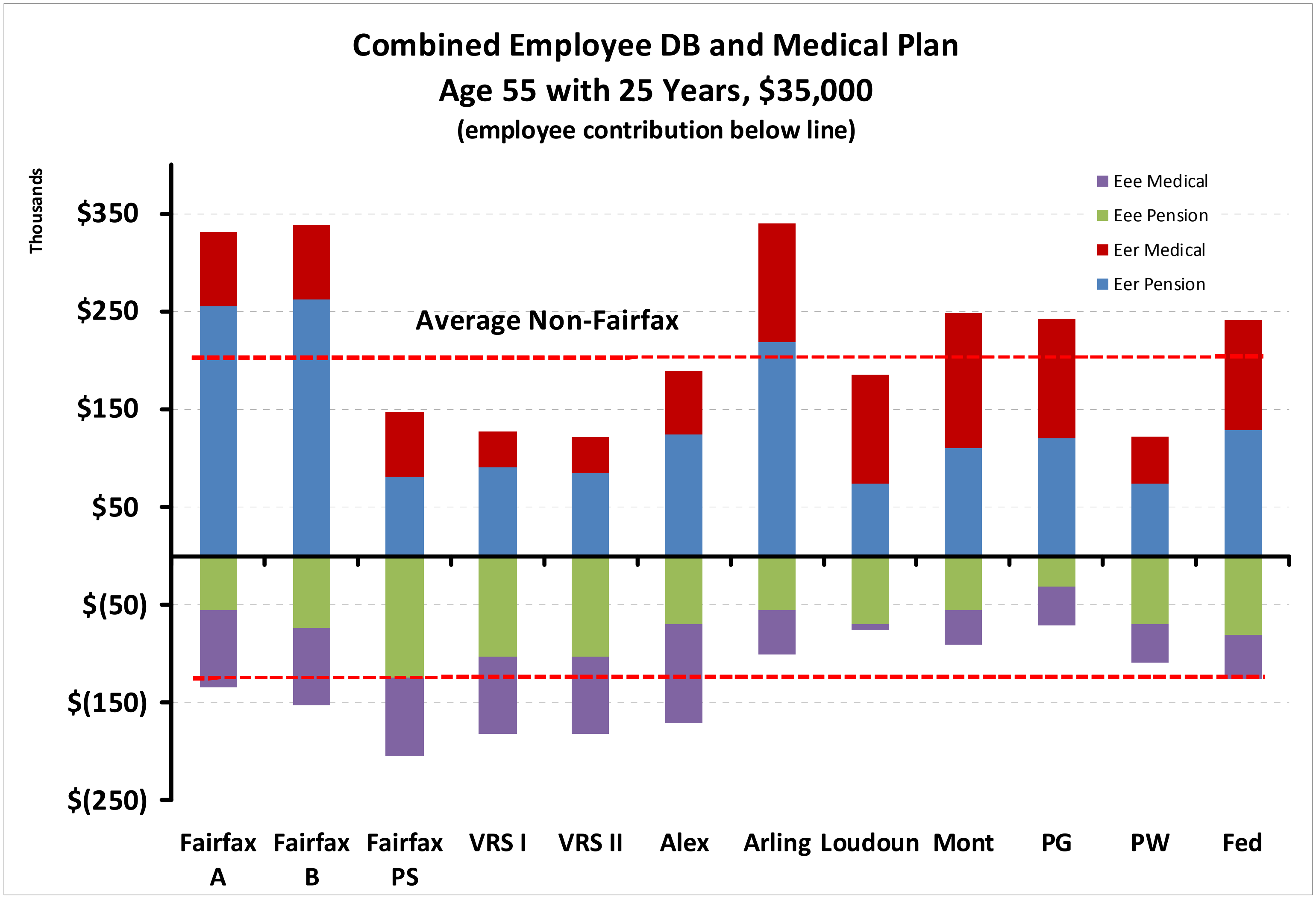
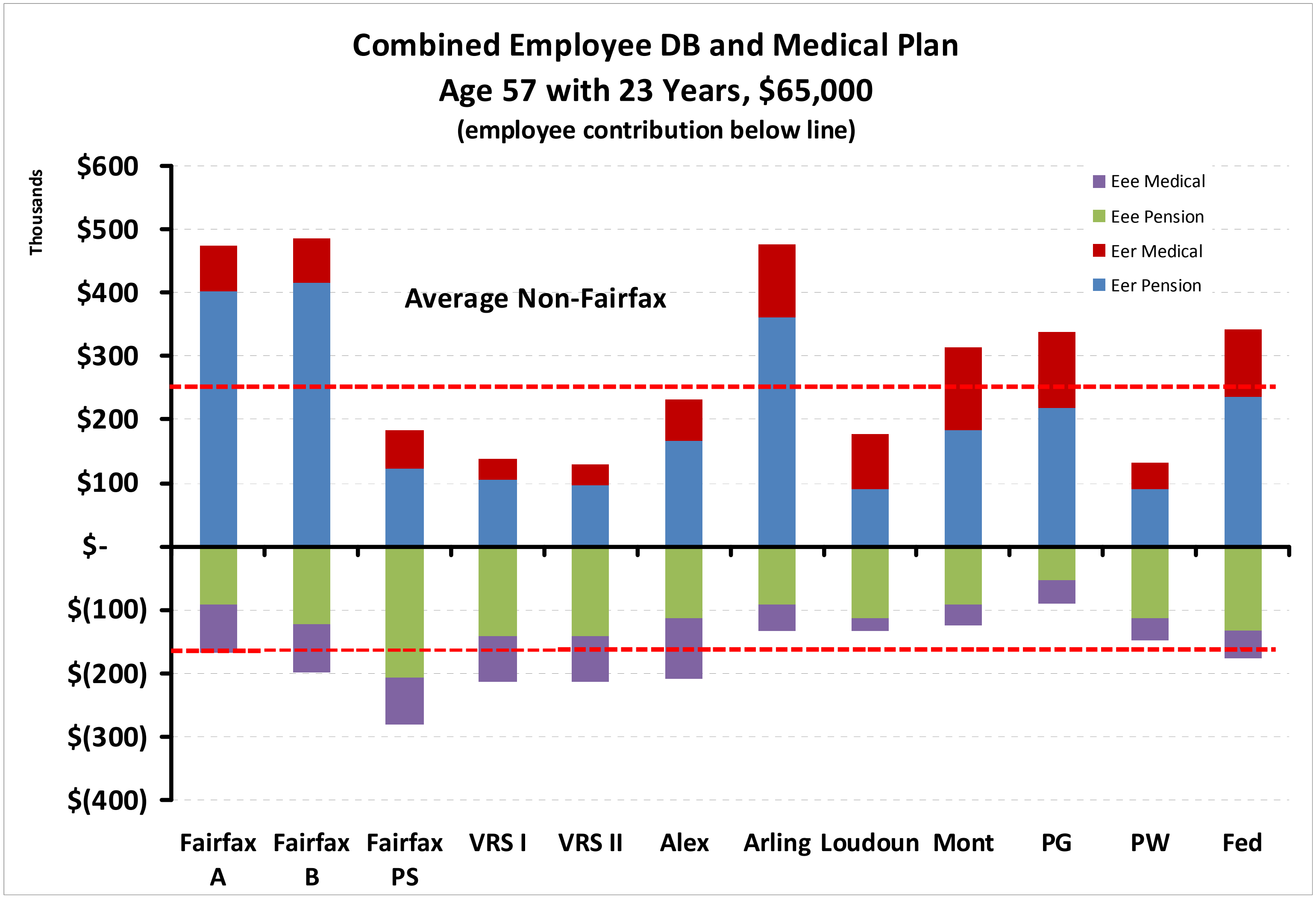
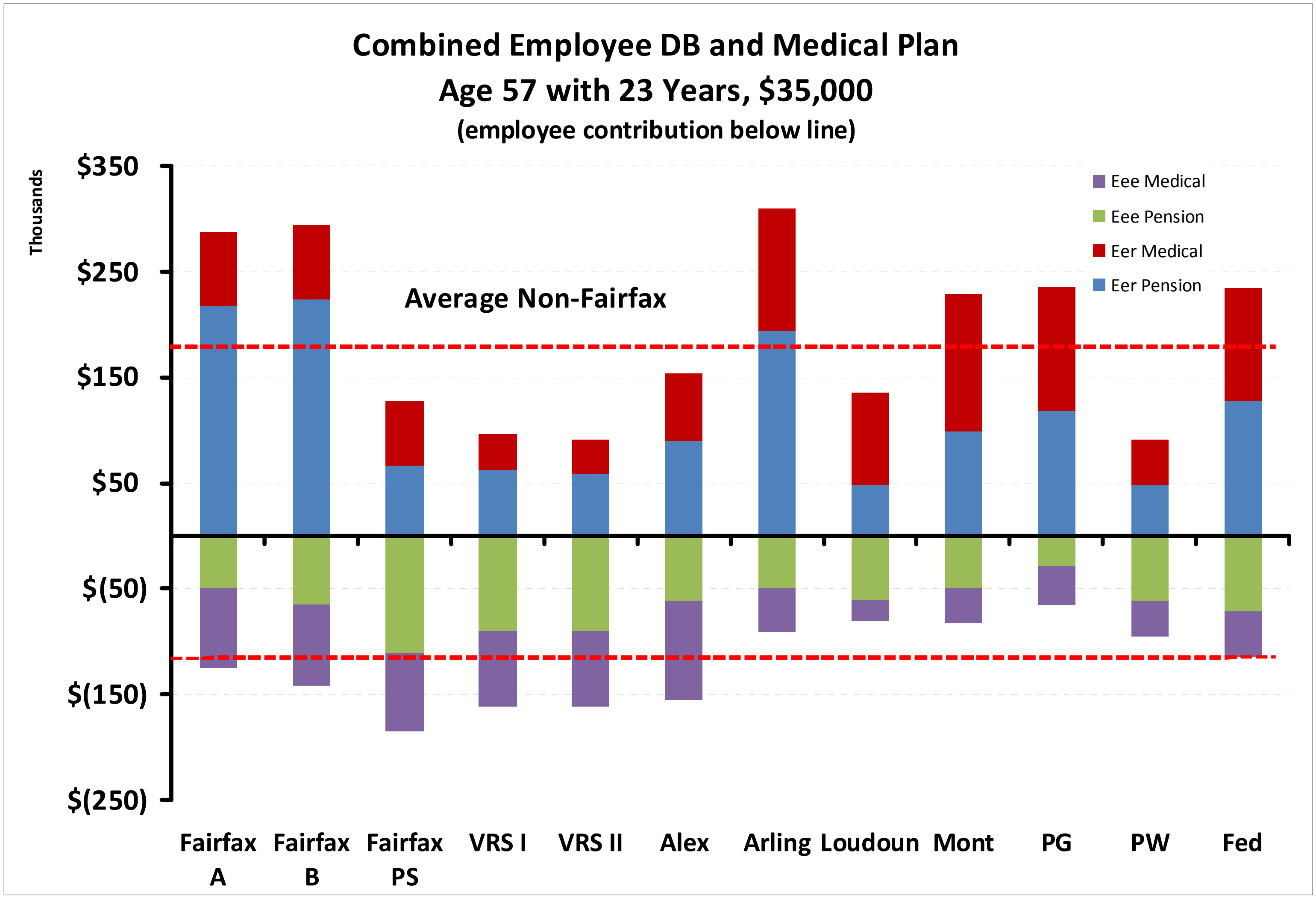
Appendix F – Combined Retirement Income and Retiree Health Plans
Employee Plan 55/25/$35,000



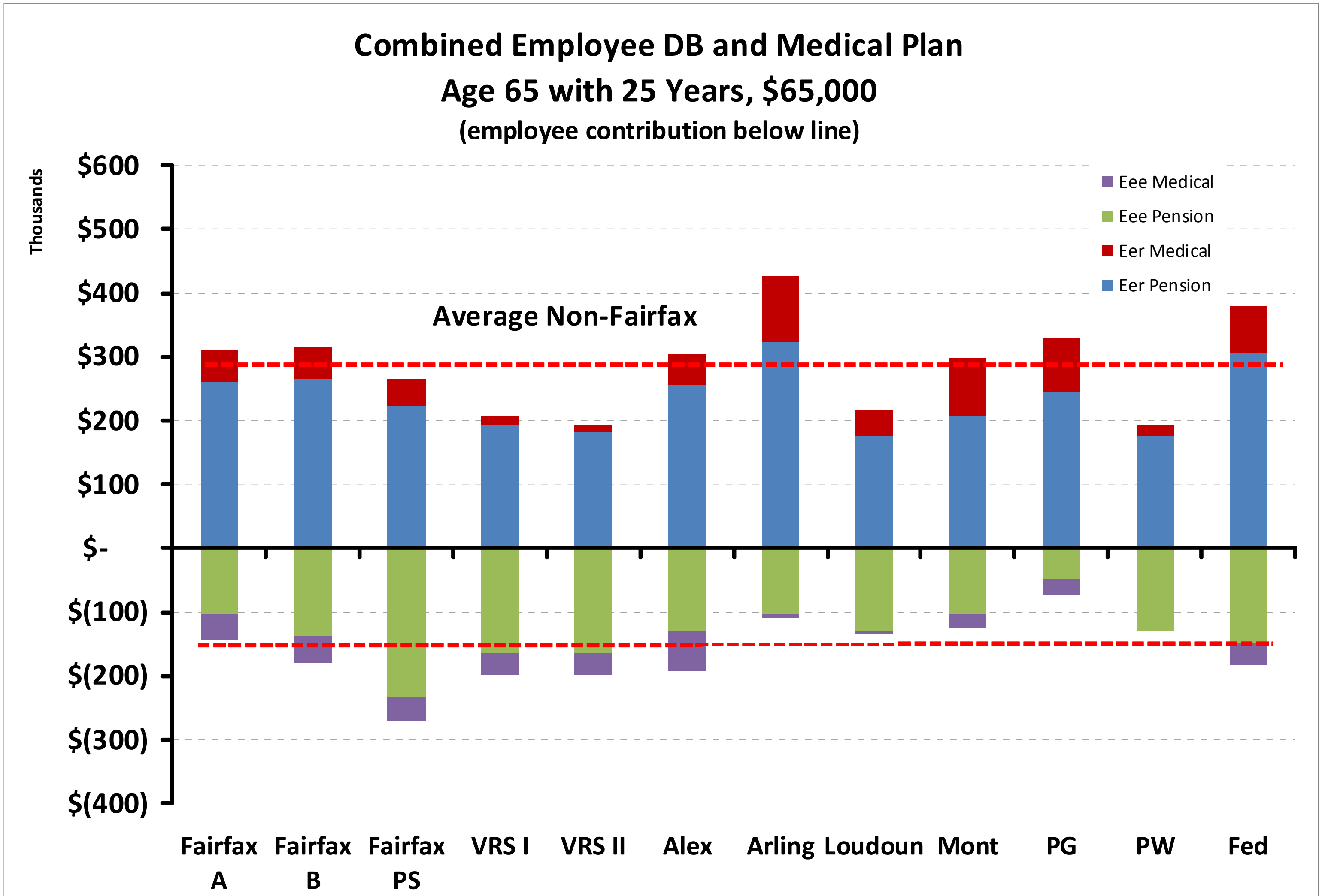
Appendix F – Combined Retirement Income and Retiree Health Plans
Employee Plan 57/23/$65,000



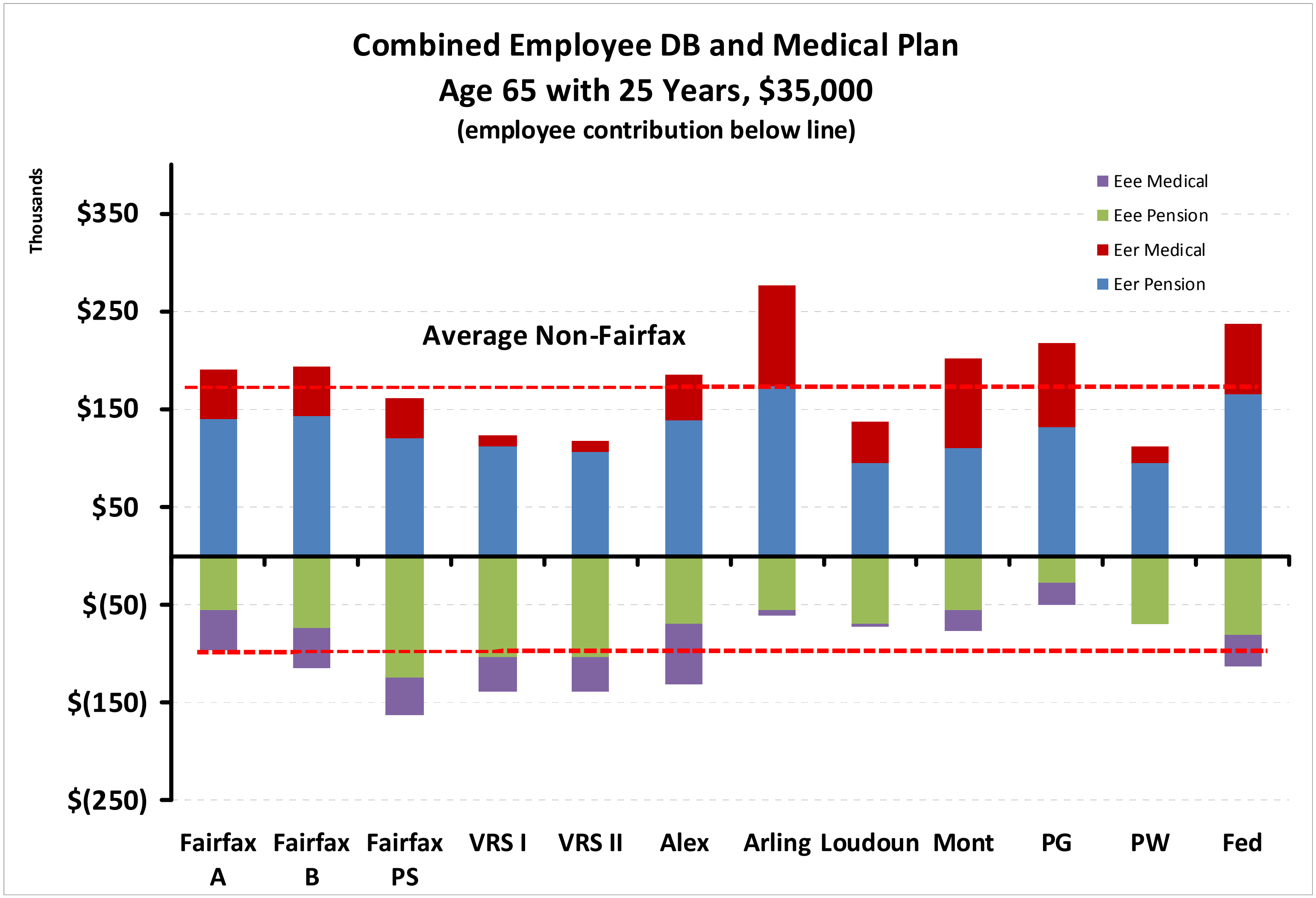
Appendix F – Combined Retirement Income and Retiree Health Plans
Employee Plan 57/23/$35,000



Appendix F – Combined Retirement Income and Retiree Health Plans Employee Plan 65/25/$65,000



Appendix F – Combined Retirement Income and Retiree Health Plans
Employee Plan 65/25/$35,000



Appendix G - Police Employees Retirement Plans

	Fairfax	VRS SPORS Pre July 1, 2010	VRS SPORS Post 7-1-10	Alexandria	Arlington
Social Security	**No**	**Yes**	**Yes**	**Yes**	**Yes**
Basic Plan Formula	2.8% of FAE x service, the result increased by 3%	1.85% of FAE x service. If service > 20 then add $12,456 "hazardous duty" supplement until SSNRA. Plus $240 per year in the 403b plan	1.85% of FAE x service. If service > 20 then add $12,456 "hazardous duty" supplement until SSNRA. Plus $240 per year in the 403b plan	2.5% of FAE 1st 20 years plus 3.2% of FAE years 20-30	2.5% of FAE for pre-2009 service, 2.7% of FAE for post-2008 service
Maximum service counted	Unlimited	Unlimited	Unlimited	30 years (82%)	30 years 81% max multiplier
Earnings include	Regular salary plus roll call pay	Full compensation	Full compensation	Base compensation	Full compensation
Averaging period	36 consecutive months	36 consecutive months	60 consecutive months	48 consecutive months	78 consecutive pay periods (3 years)
When full benefits paid	Age 55 or 25 years of service	60/5 or 50/25	60/5 or 50/25	55/5 or 25 years of service	52/5 or 25 years of service
ER Reductions	20 years of service but less than 25 and before age 55. Reduction based on age and service.	50/5	50/5	50/20	42/5
Employee contributions	10% of pay	5% of pay	5% of pay	8% of pay	7.5% of pay
Cost-of-living increases	100% up to 4% (added 1% possible with surplus)	100% up to 3%, 50% of next 4% (max of 5%). Supplement is subject to bi-annual ad hoc increases	100% up to 2%, 50% of next 8% (max of 6%). Supplement is subject to bi-annual ad hoc increases	100% up to 3%	100% up to 3%, 50% of next 9% (max of 7.5%)
Sick Leave	Unused counts as service	Unused may be used to purchase service credit	Unused may be used to purchase service credit	Not mentioned	Unused counts as service
DROP	Eligible at 55 or 25 years of service. Three year period.	N/A	N/A	Eligible at 30 years. Three year period	Eligible at 52/5 or 25 years of service. Three year period

Appendix G - Police Employees Retirement Plans

	Fairfax	Loudoun County VRS	Montgomery County Group F	Prince Georges	Prince William VRS plus	FERS Special
Social Security	**No**	**Yes**	**Yes**	**No**	**Yes**	**Yes**
Basic Plan Formula	2.8% of FAE x service, the result increased by 3%	1.85% of FAE x service. If service > 20 then add $12,456 "hazardous duty" supplement until SSNRA.	Pre SSNRA, 2.4% of FAE; after SSNRA, 1.65% to cov.comp. plus 2.4% above cov.comp.	3.0% of FAE 1st 20 years plus 2.5% of FAE above 20	(Greater of 1.5% of FAE or 1.65% of FAE in excess of $100/month X service), offset by VRS. In lieu of benefit may elect 640/month for 15 years	1.7% of FAE for 1st 20 years, then 1% of FAE for years after 20, add supplemental benefit payable until age 62. Plus 5% match in TSP
Maximum service counted	Unlimited	Unlimited	36 years	30 years	Unlimited	Age-based mandatory separation
Earnings include	Regular salary plus roll call pay	Full compensation	Includes roll call & differential, excludes overtime	Base pay	Base pay	Base Pay
Averaging period	36 consecutive months	60 consecutive months	36 consecutive months	24 consecutive months	36 consecutive months	36 consecutive months
When full benefits paid	Age 55 or 25 years of service	60/5 or 50/25	55/15 or 25 years of service	55 or 20 years of service	55 or 25 years of service	50/20 or 25 years of service
ER Reductions	20 years of service but less than 25 and before age 55. Reduction based on age and service.	50/5	45/15 or 41/20	50/20	20 years of service	N/A
Employee contributions	10% of pay	5% of pay	4.75% to SSWB, then 8.5%	8% 1st 5 years, 7% next 5 years, 5.5% after 10 years	1.37% (actuarially determined) until 50/25, then $0	1.30% (7.5% less OASDI)
Cost-of-living increases	100% up to 4% (added 1% possible with surplus)	100% up to 2%, 50% of next 8% (max of 6%). Supplement is subject to bi-annual ad hoc increases	100% up to 3%, 60% above 3% (max of 7.5% for pre-65 retirees)	$35 per month with gain-sharing above 8%	VRS C-O-L, flat $640 per month benefit was valued	Based on CPI, 100% of first 2% plus amount above 3%
Sick Leave	Unused counts as service	Unused may be used to purchase service credit	1 month per 76 hours, maximum 24 months	1 month per 80 hours	Not mentioned	No Credit
DROP	Eligible at 55 or 25 years of service. Three year period.	N/A	Eligible at 46/25. Up to three year period	None	None	None

Appendix G - Police Employees Retirement Plans

Assumptions

RETIREMENT INCOME PLANS

Date of Calculation 7/1/2011

Reference Employee	
Age	51
Past Service	26
Retirement Age	51
Base Salary	90,000
Total Salary	90,000

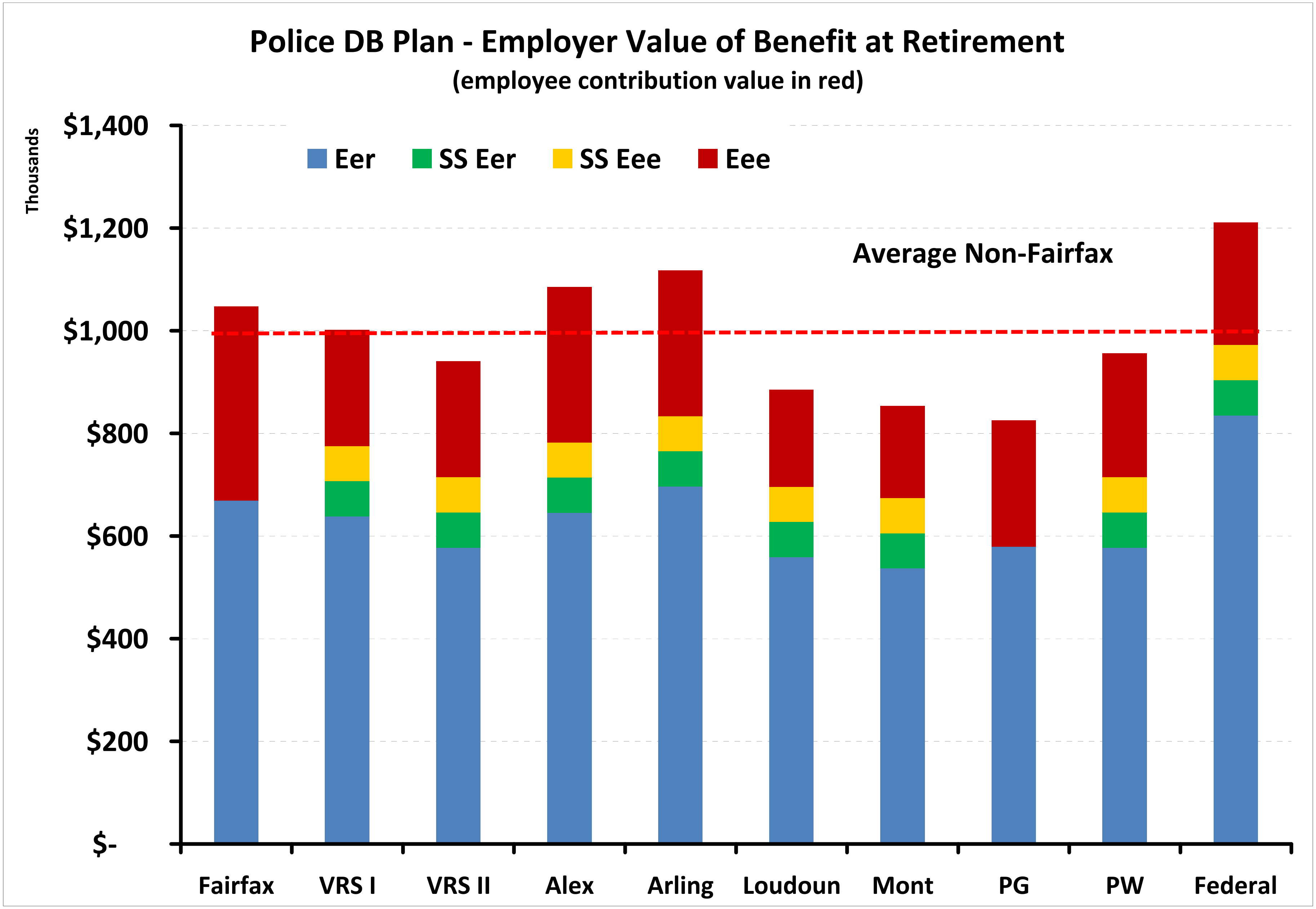
Economic Assumptions	
Discount rate - Pre Retirement - DB	7.50%
DC Investment Return	7.50%
Salary Scale	4.00%
Inflation	3.00%
Lump Sum Conversions	7.50%

Results

	Fairfax	VRS Pre 7-1-10	VRS Post 7-1-10	Alexandria	Arlington	Loudoun	Montgomery	Prince Georges	Prince William	FERS Special
Basic Benefit	64,923	41,646	40,086	58,778	60,781	40,086	37,144	66,202	40,086	34,633
Value of Basic Benefit	763,110	489,513	471,168	690,881	714,424	471,168	436,592	778,140	471,168	407,079
Value of the Supplement *	-	114,504	114,504	-	-	114,504	155,206	-	185,020	119,903
Value of Social Security	-	106,940	106,940	106,940	106,940	106,940	106,940	-	106,940	106,940
Value of C-O-L Provisions	284,067	235,392	192,653	287,447	296,211	192,653	223,834	47,151	192,653	198,370
Defined Contribution Balance	-	55,335	55,335	-	-	-	-	-	-	378,611
Total Value of Benefit	1,047,178	1,001,684	940,600	1,085,268	1,117,575	885,266	922,572	825,290	955,781	1,210,903
Value of Employee Contributions **	378,611	226,196	226,196	302,889	283,958	189,306	179,840	245,975	241,175	238,525
Value of Employee 1/2 Social Security	-	68,604	68,604	68,604	68,604	68,604	68,604	-	68,604	68,604
Employer Provided Value of Benefit	668,566	706,884	645,801	713,775	765,013	627,356	605,524	579,316	646,002	903,774

* VRS supplemental benefits calculated with COL
** Employee contribution necessary to maximize employer defined contribution match included in value

Non-Fairfax group	
Average employer value	688,161
Average employee contribution	298,099
Average total Value	993,882



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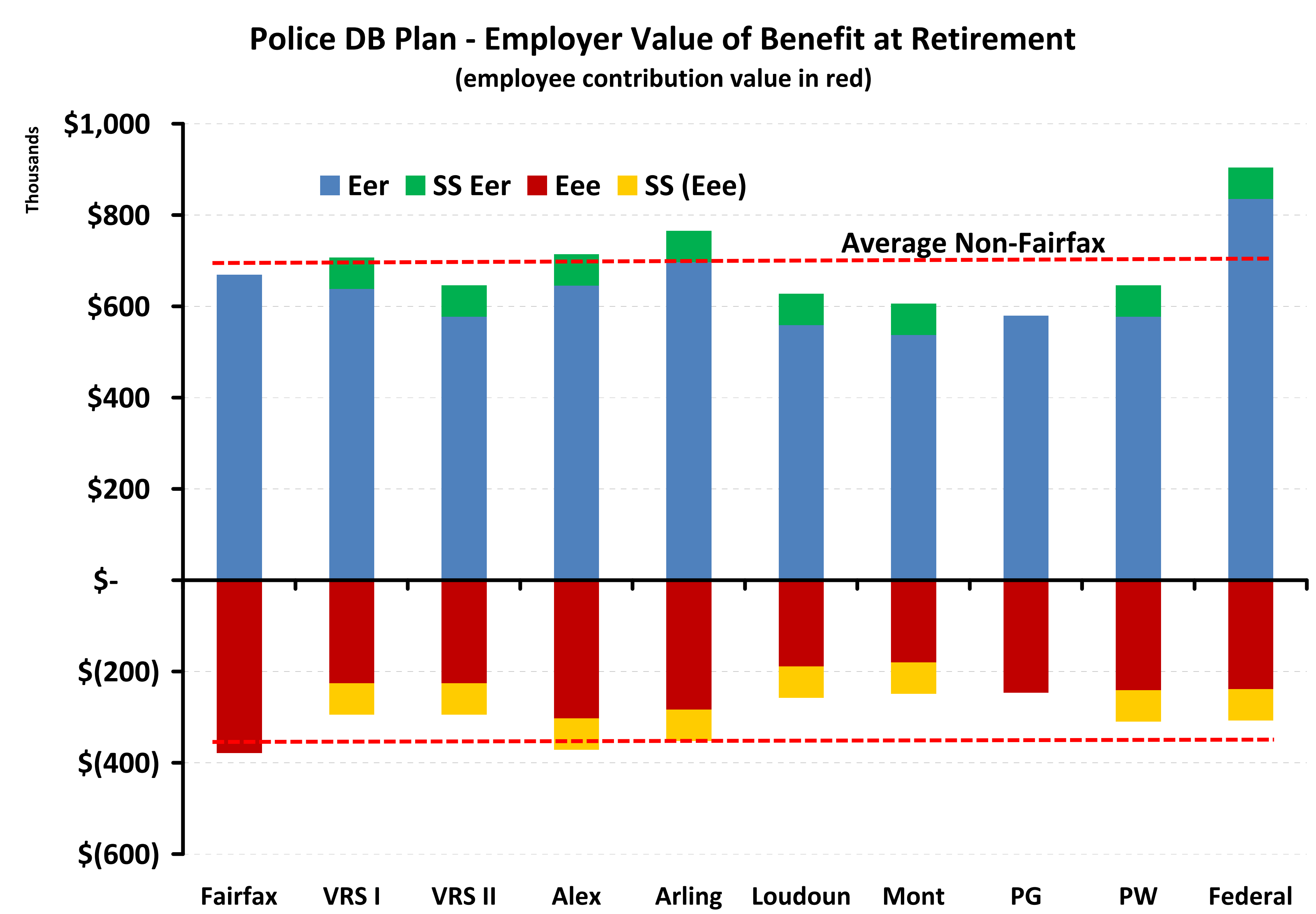
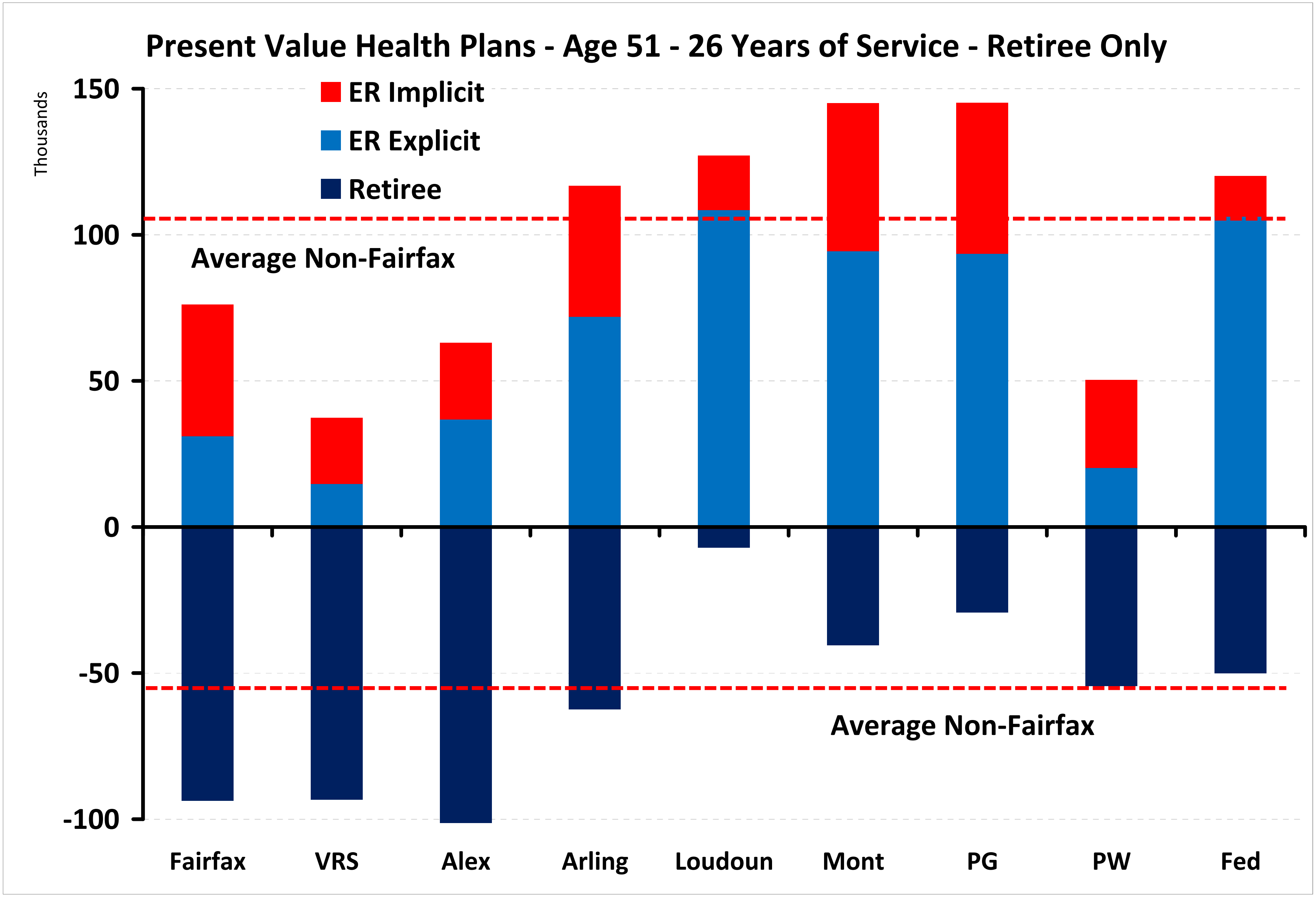

Police DB Plan - Employer Value of Benefit at Retirement
(employee contribution value in red)
Thousands
$1,000
$800
$600
$400
$200
$-
$(200)
$(400)
$(600)
Eer
SS Eer
Eee
SS (Eee)
Average Non-Fairfax
Fairfax
VRS I
VRS II
Alex
Arling
Loudoun
Mont
PG
PW
Federal

Appendix G - Police Employees Retirement Plans



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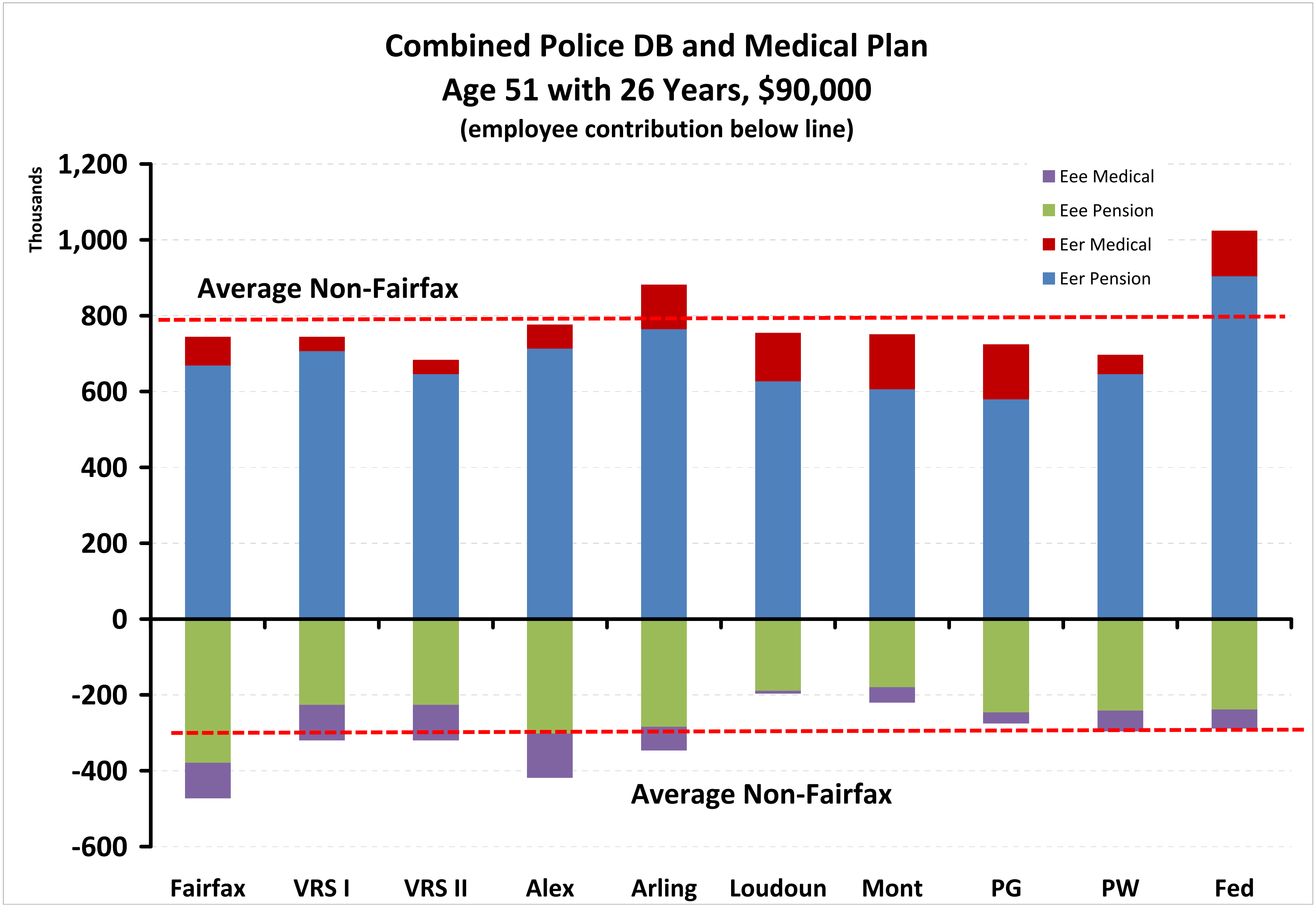
Appendix G - Police Employees Retirement Plans



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Appendix H - Uniformed Employees Retirement Plans

	Fairfax	VRS Pre July 1, 2010	VRS Post 7-1-10	Alexandria	Arlington
Basic Plan Formula	2.5% of FAE x service, plus 0.3% termporary benefit until SSNRA, the result increased by 3%	1.85% of FAE x service. If service > 20 then add $12,456 "hazardous duty" supplement until SSNRA.	1.85% of FAE x service. If service > 20 then add $12,456 "hazardous duty" supplement until SSNRA.	2.5% of FAE 1st 20 years plus 3.2% of FAE years 20-30	2.5% of FAE for pre-2009 service, 2.7% of FAE for post-2008 service
Maximum service counted	Unlimited	Unlimited	Unlimited	30 years (82%)	30 years 81% max multiplier
Earnings include	Regular salary plus roll call pay	Full compensation	Full compensation	Base compensation	Full compensation
Averaging period	36 consecutive months	36 consecutive months	60 consecutive months	48 consecutive months	78 consecutive pay periods (3 years)
When full benefits paid	55/6 or 25 years of service	60/5 or 50/25	60/5 or 50/25	55/5 or 25 years of service	52/5 or 25 years of service
ER Reductions	20 years of service but less than 25 and before age 55. Reduction based on age and service.	50/5	50/5	50/20	42/5
Employee contributions	7.08% of pay	5% of pay	5% of pay	8% of pay	7.5% of pay
Cost-of-living increases	100% up to 4% (added 1% possible with surplus)	100% up to 3%, 50% of next 4% (max of 5%). Supplement is subject to bi-annual ad hoc increases	100% up to 2%, 50% of next 8% (max of 4%). Supplement is subject to bi-annual ad hoc increases	100% up to 3%,	100% up to 3%, 50% of next 9% (max of 7.5%)
Sick Leave	Unused counts as service	Unused may be used to purchase service credit	Unused may be used to purchase service credit	Not mentioned	Not counted
DROP	Eligible at 55 or 25 years of service. Three year period.	N/A	N/A	Eligible at 30 years. Three year period	Eligible at 52/5 or 25 years of service. Three year period

Appendix H - Uniformed Employees Retirement Plans

	Fairfax	Loudoun County VRS	Montgomery County Group G	Prince Georges	Prince William VRS plus	FERS Special
Basic Plan Formula	2.5% of FAE x service, plus 0.3% termporary benefit until SSNRA, the result increased by 3%	1.85% of FAE x service. If service > 20 then add $12,456 "hazardous duty" supplement until SSNRA.	Pre SSNRA, 2.4% of FAE; after SSNRA, 1.65% to cov.comp. plus 2.4% above cov.comp.	3.0% of FAE 1st 20 years plus 2.5% of FAE above 20	(Greater of 1.5% of FAE or 1.65% of FAE in excess of $100/month X service), offset by VRS. In lieu of benefit may elect 640/month for 15 years	1.7% of FAE for 1st 20 years, then 1% of FAE for years after 20 PLUS supplemental benefit payable until age 62
Maximum service counted	Unlimited	Unlimited	33 years	30 years	N/A	Age-based mandatory separation
Earnings include	Regular salary plus roll call pay	Full compensation	Includes roll call & differential, excludes overtime	Base pay	Base pay	Base Pay
Averaging period	36 consecutive months	60 consecutive months	36 consecutive months	24 consecutive months	36 consecutive months	36 consecutive months
When full benefits paid	55/6 or 25 years of service	60/5 or 50/25	55/15 or 25 years of service	55 or 20 years of service	55 or 25 years of service	50/20 or 25 years of service
ER Reductions	20 years of service but less than 25 and before age 55. Reduction based on age and service.	50/5	45/15 or 41/20	50/20	20 years of service	N/A
Employee contributions	7.08% of pay	5% of pay	5.5% to SSWB, then 9.25%; after 25 years 4.75% to SSWB, then 8.5%	8% of pay	1.37% (actuarially determined) until 50/25, then $0	1.30% (7.5% less OASDI)
Cost-of-living increases	100% up to 4% (added 1% possible with surplus)	100% up to 2%, 50% of next 8% (max of 4%). Supplement is subject to bi-annual ad hoc increases	100% up to 3%, 60% of next 7.5% (max of 7.5%)	$35 per month with gain-sharing above 8%	VRS C-O-L, flat $640 per month benefit was valued	Based on CPI, 100% of first 2% plus amount above 3%
Sick Leave	Unused counts as service	Unused may be used to purchase service credit	1 month per 76 hours, maximum 24 months	1 month per 80 hours	Not addressed	No Credit
DROP	Eligible at 55 or 25 years of service. Three year period.	N/A	Eligible at 46/25. Up to three year period	None	None	None

Appendix H - Uniformed Employees Retirement Plans

Assumptions

RETIREMENT INCOME PLANS

Date of Calculation 7/1/2011

Reference Employee	
Age	52
Past Service	26
Retirement Age	52
Base Salary	90,000
Total Salary	90,000

Economic Assumptions	
Discount rate - Pre Retirement - DB	7.50%
DC Investment Return	7.50%
Salary Scale	4.00%
Inflation	3.00%
Lump Sum Conversions	7.50%

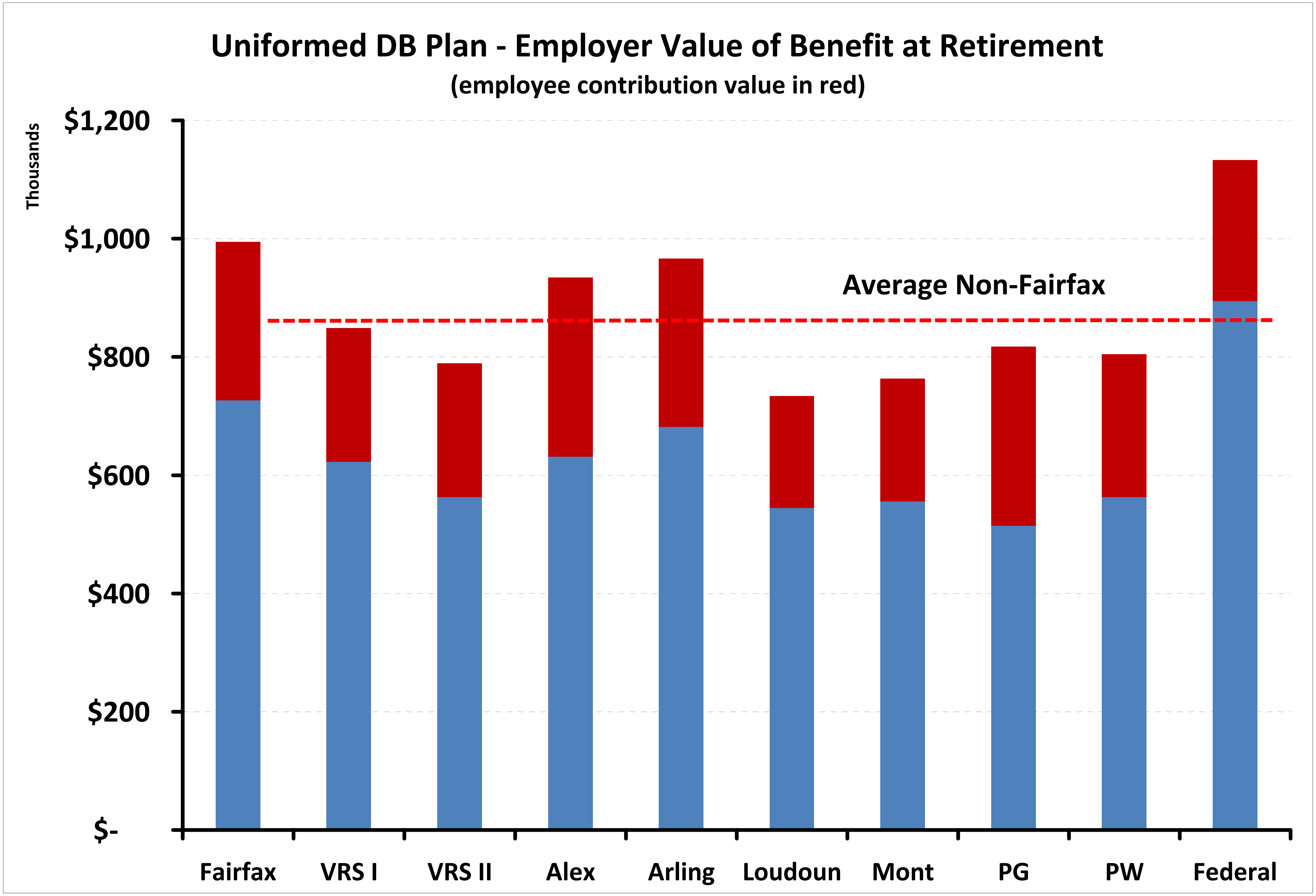
Results

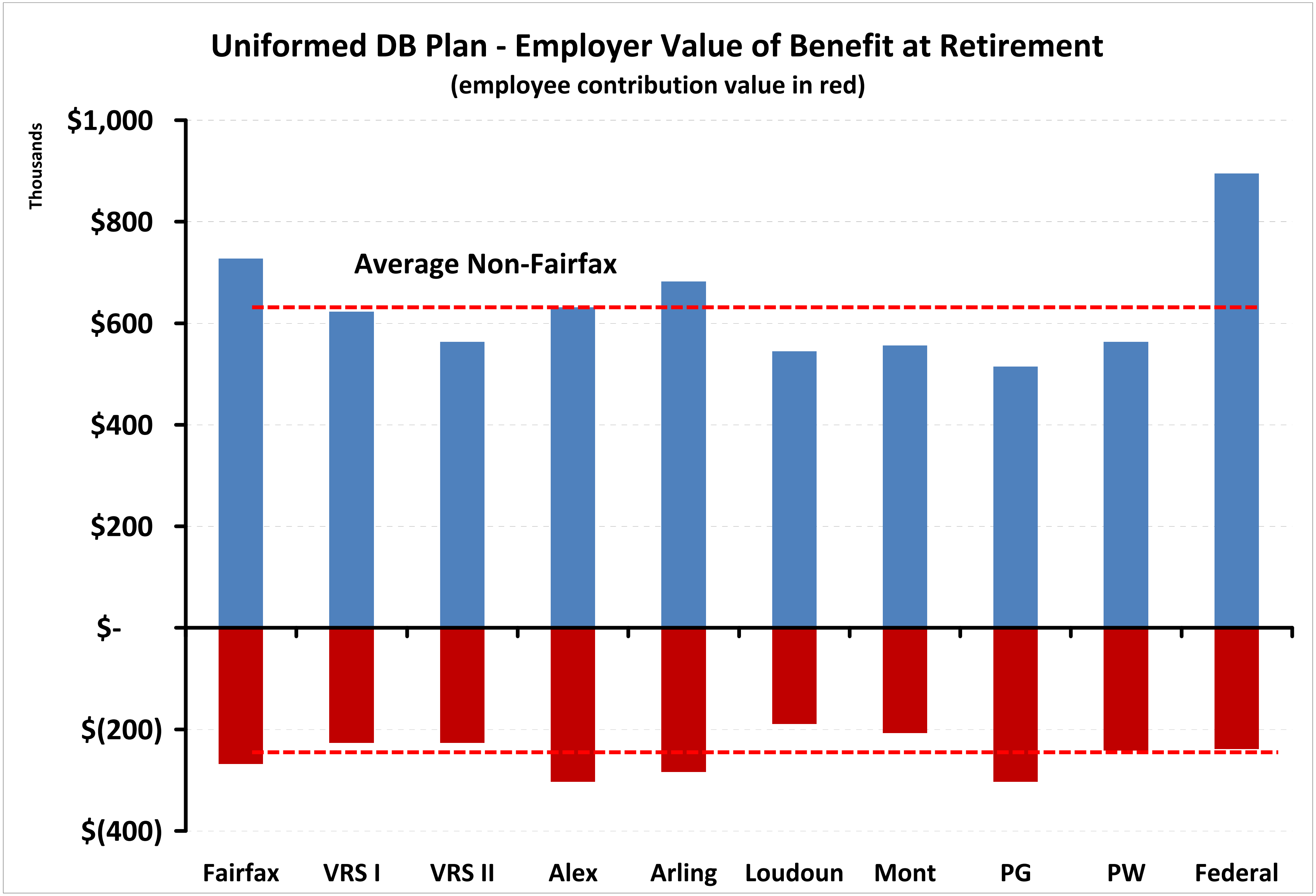
	Fairfax	VRS Pre 7-1-10	VRS Post 7-1-10	Alexandria	Arlington	Loudoun	Montgomery	Prince Georges	Prince William	FERS Special
Basic Benefit	57,967	41,646	40,086	58,778	60,781	40,086	36,902	66,202	40,086	34,633
Value of Basic Benefit	675,239	485,123	466,943	631,453	708,017	466,943	429,853	771,162	466,943	403,429
Value of the Supplement*	61,791	110,647	110,647	-	-	110,647	149,017	-	181,163	112,661
Value of C-O-L Provisions	257,821	197,678	156,330	302,889	258,165	156,330	184,733	46,018	156,330	161,189
Defined Contribution Balance	-	55,335	55,335	-	-	-	-	-	-	378,611
Total Value of Benefit	994,851	848,783	789,254	934,342	966,182	733,919	763,603	817,180	804,435	1,055,890
Value of Employee Contributions**	268,057	226,196	226,196	302,889	283,958	189,306	207,536	302,889	241,175	238,525
Employer Provided Value of Benefit	726,794	622,587	563,059	631,453	682,224	544,614	556,067	514,291	563,260	894,701

* VRS supplemental benefits calculated with COL
** Employee contribution necessary to maximize employer defined contribution match included in value

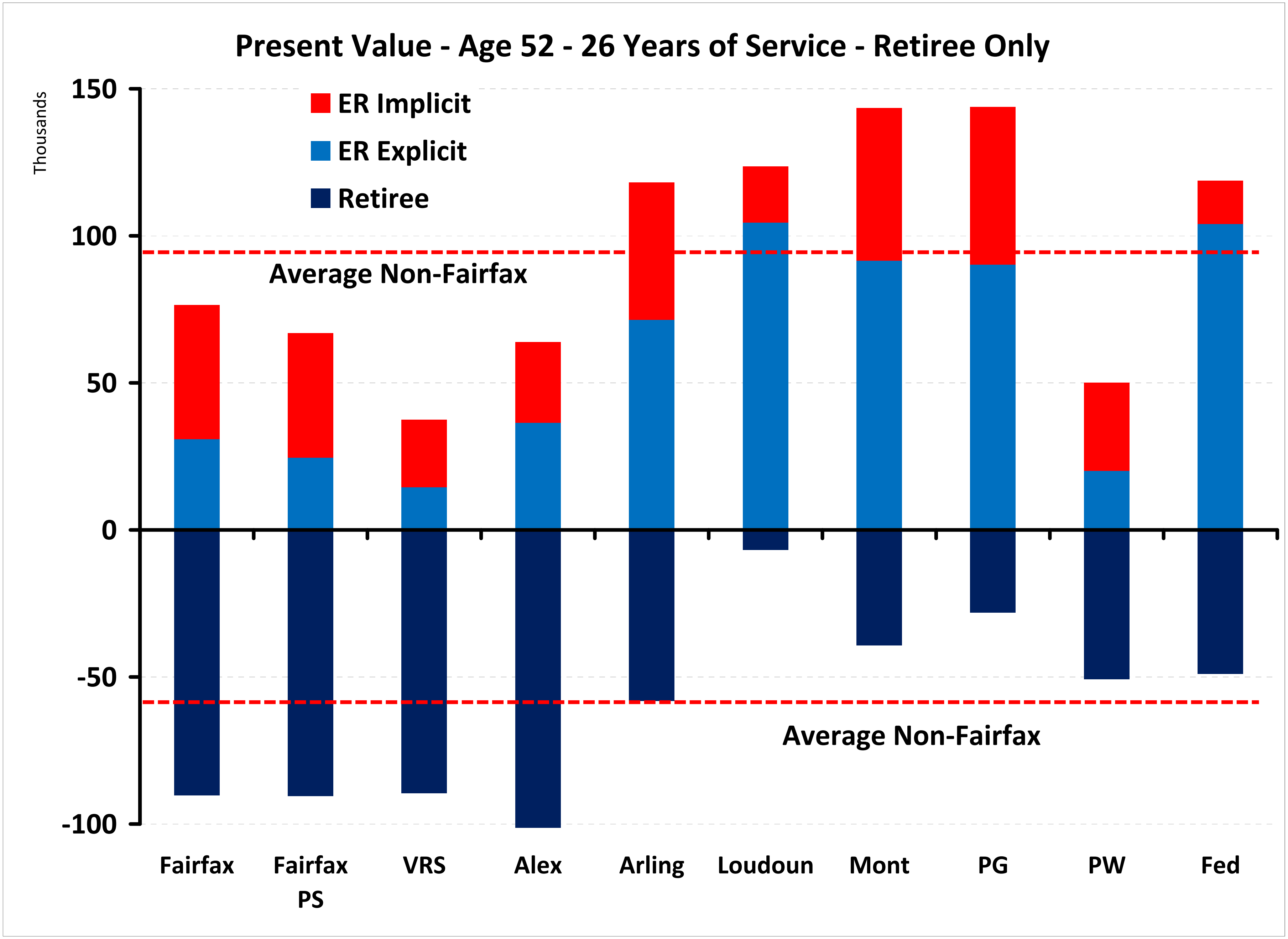
Non-Fairfax group	
Average employer value	619,139
Average employee contributio	246,519
Average total Value	857,065

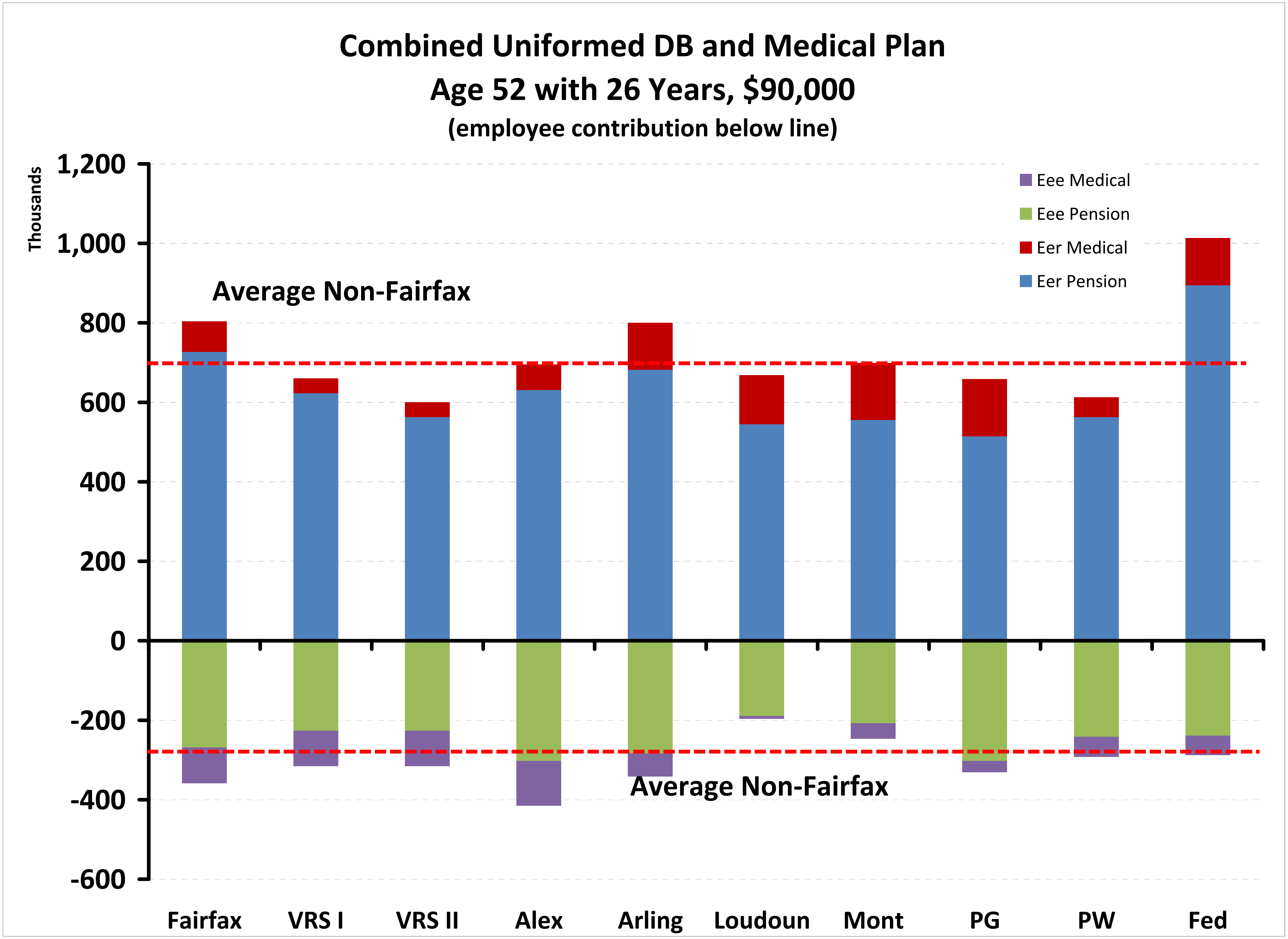
Appendix H - Uniformed Employees Retirement Plans




Uniformed DB Plan - Employer Value of Benefit at Retirement
(employee contribution value in red)
Thousands
$1,000
$800
$600
$400
$200
$-
$(200)
$(400)
Average Non-Fairfax
Fairfax
VRS I
VRS II
Alex
Arling
Loudoun
Mont
PG
PW
Federal

Appendix H - Uniformed Employees Retirement Plans




Combined Uniformed DB and Medical Plan
Age 52 with 26 Years, $90,000
(employee contribution below line)
Thousands
1,200
1,000
800
600
400
200
0
-200
-400
-600
Eee Medical
Eee Pension
Eer Medical
Eer Pension
Average Non-Fairfax
Average Non-Fairfax
Fairfax
VRS I
VRS II
Alex
Arling
Loudoun
Mont
PG
PW
Fed

CONSULTING

Aon Consulting's

2008 Replacement Ratio Study™

A Measurement Tool For Retirement Planning

A Measurement Tool for Retirement Planning

For twenty years, Aon Consulting and Georgia State University have published data on retirement income needs. The ***Replacement Ratio Study***™ has become a premier source of retirement planning information for employers, employees, and their advisors. The ***2008 Replacement Ratio Study*** is the seventh update of this report and builds on a 1980 edition issued by the President's Commission on Pension Policy.

In this edition of the study, we continue to recognize the movement toward defined contribution plans that was initially reflected in the 2004 report. Thus, this report adds a section analyzing how a retiree might spend their savings account after retiring. Retirees without traditional pension benefits will have to take more responsibility, not only to plan for their retirement, but also to live off their account during retirement.

This study was completed under the direction of Dr. Bruce Palmer, Professor and Chair Emeritus of the Department of Risk Management and Insurance, Robinson College of Business, Georgia State University. Aon Consulting's Ron DeStefano (alumnus), E.A., Michael Schachet, F.S.A., Jeff Paciero, F.S.A., and Chris Bone (alumnus), F.S.A., worked closely with Dr. Palmer in the completion of this study.

Questions About the Study

If you have any questions about how the study may be applied as a planning tool (either as the plan sponsor or on an individual level), you can contact your Aon consultant or visit **www.aon.com/retire**.

Table of Contents

Introduction

When Kathleen Casey-Kirschling applied for Social Security benefits on October 15, 2007, she became the first baby boomer to apply for Social Security. The baby boomers represent about 28 percent of the U.S. population and, during the next 19 years, most of them will become eligible for Social Security benefits and will be thinking about retirement.

Many of these future retirees are not financially prepared to retire. In fact, many do not know what they need to do to prepare. This uncertainty comes at a high cost. Employees may have to delay retirement and/or accept a lower standard of living when they retire. The implications are becoming even more severe as many private employers are largely abandoning the defined benefit retirement system and passing a greater share of retiree medical costs on to their retirees. Also, while the stock markets have largely recovered from their 2002 lows, future returns continue to be unpredictable. This and other uncertainties make planning withdrawals from defined contribution plans very challenging.

Some employers have even stepped away from retirement education, leaving the burden to plan with the employee. Others, encouraged by recent legislation, feel a fiduciary responsibility to help employees plan a financially secure retirement. All employers, however, should realize that the shape of their future workforce will depend to a measurable degree on how many of their existing employees will retire in the next decade.

This 2008 update continues to answer the original question, "How much income will I need at retirement to maintain my standard of living?" It also addresses the question, "How much capital do I need to accumulate by retirement?", which was introduced in the 2004 update. To answer the latter question in 2004, we assumed that accumulated amounts would be annuitized, rather than invested. In this 2008 update, we also look at the pros and cons of managing an individual account, rather than buying an annuity at retirement. An employee who receives a lump-sum settlement from a defined benefit pension plan may also find this discussion of value.

Replacement Ratio Defined

A Replacement Ratio is a person's gross income after retirement, divided by his or her gross income before retirement. For example, assume someone earns $60,000 per year before retirement. Further, assume he or she retires and receives $45,000 of Social Security and other retirement income. This person's replacement ratio is 75 percent ($45,000/$60,000).

This study analyzes the replacement ratio employees need to maintain their pre-retirement standard of living after retirement. Generally, a person needs less gross income after retiring, primarily due to four factors:

1. Income taxes go down after retirement. This is because extra deductions are available for those over age 65, and taxable income usually decreases at retirement.

2. Social Security taxes (FICA deductions from wages) end completely at retirement.

3. Social Security benefits are partially or fully tax-free. This reduces taxable income and, therefore, the amount of income needed to pay taxes.

4. Saving for retirement is no longer needed.

In addition to the factors described above, changes in age- and work-related expenditures that occur at retirement also influence the amount of income someone needs at retirement. Changes in these expenditures, however, vary from person to person.

The chart below shows that a 78 percent Replacement Ratio would allow an employee earning $60,000 to retire at age 65 in 2008 without reducing his or her standard of living. Because taxes and savings decrease at retirement, this person is just as well off after retirement with a gross income of only $46,972.

Replacement Ratio for Employee Earning $60,000 Who Retires at 65

	Annual Income		Replacement Ratio 2 / 1
	Before Retirement	After Retirement	
	1	2	3
Gross Income	$60,000	$46,972	78%
(Taxes)*	(10,967)	(49)	
(Savings)**	(2,225)	0	
(Age- & Work-Related Expenditures)***	(34,253)	(34,368)	
Amount Left for Other Living Expenses	12,555	12,555	

* *Tax rates and Social Security amounts are based on the laws in effect on January 1, 2008.*
** *Savings are assumed to stop at the time of retirement.*
*** *See Appendix III for details about assumed age- and work-related expenditures.*

Appendix I describes the methodology used to determine the needed replacement ratios. Appendix II shows the calculation details for our baseline cases, and Appendix III summarizes the expenditure data used for the calculations.

The primary data source for this information is the U.S. Department of Labor's Bureau of Labor Statistics' Consumer Expenditure Survey (CES). This is essentially the same database that is used to construct the Consumer Price Index. The CES is done annually, and we used data from the most recent years available—2003, 2004, and 2005. This data includes information on approximately 12,823 "working" consumer units and 6,498 "retired" consumer units. In total, this represents approximately 25 percent more consumer units than has been available in prior updates.

2008 Baseline Case Results

The table, below, shows the baseline case results for the 2008 update. The baseline case assumes a family situation in which there is one wage earner who retires at age 65 with a spouse age 62. Thus, the family unit is eligible for family Social Security benefits, which are 1.375 times the wage earner's benefit. The baseline case also takes into account age- and work-related expenditure changes after retirement, in addition to pre-retirement savings patterns and changes in taxes after retirement.

2008 Replacement Ratio Findings

Pre-Retirement Income ($000)	Replacement Ratios		
	Social Security (%)	Private and Employer Sources (%)	Total (%)
20	69	25	94
30	59	31	90
40	54	31	85
50	51	30	81
60	46	32	78
70	42	35	77
80	39	38	77
90	36	42	78

The graph on the following page illustrates three significant points about the Replacement Ratio calculations:

1. Social Security replaces a larger portion of pre-retirement income at lower wage levels. This is by design and has the effect of redistributing income from higher paid employees to lower paid.

2. Total Replacement Ratios that are required to maintain a person's pre-retirement standard of living are highest for the very lowest paid employees. This is primarily for two reasons. First, before they retire, lower paid employees save the least and pay the least in taxes as a percentage of their income. Thus, they spend a higher percentage of their income and need higher Replacement Ratios to maintain that level of expenditures. Second, age- and work-related expenditures do not decrease by as much, as a percentage of income, for the lower paid employees. This also means they need more income after retirement (as a percent of their pre-retirement income) than the higher paid employees.

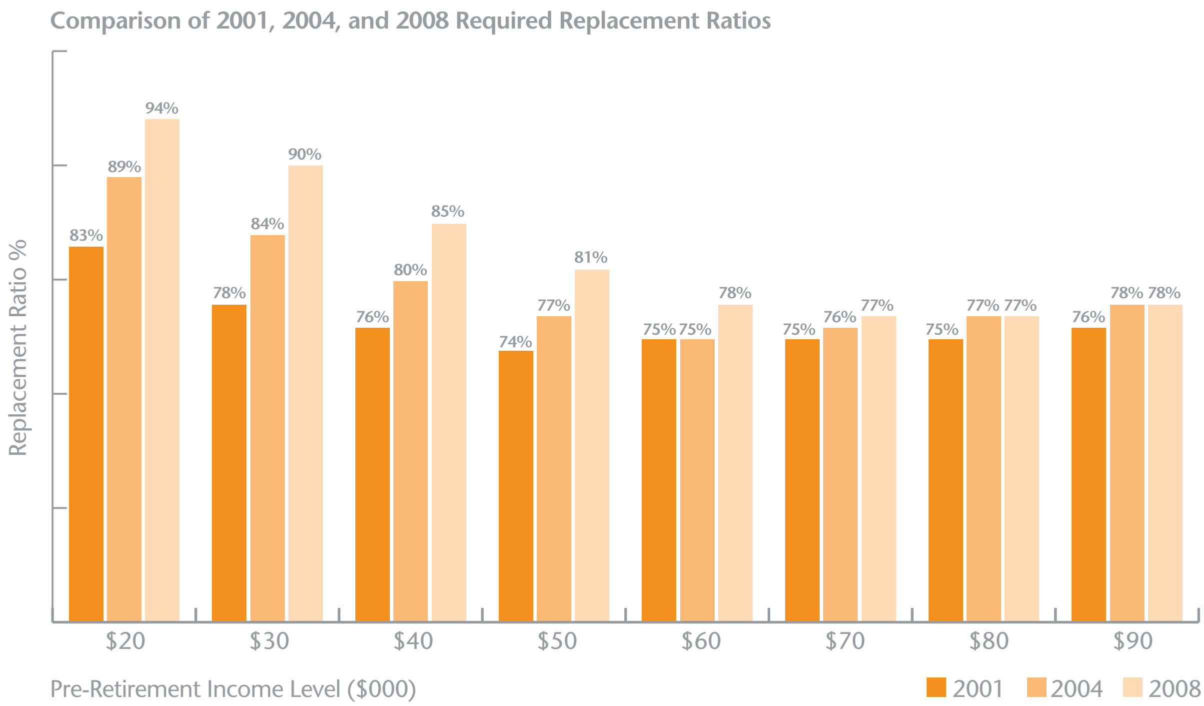
3. After reaching an income level of $60,000, the total required Replacement Ratios remain fairly constant at 77 percent – 78 percent. This is primarily because post-retirement taxes increase as income levels increase. Post-retirement taxes increase from 0.1 percent of post-retirement income for a $60,000 person to 6.7 percent for a $90,000 person. To pay the additional taxes, higher paid employees need more retirement income.

One reason the highest income employees pay more tax after retirement is that as much as 85 percent of a married couple's Social Security benefit is taxable when retirement income (including 50 percent of Social Security) goes above $44,000. It is important to note the $44,000 threshold is not indexed like other tax breakpoints. As time goes on, automatic indexing of Social Security benefits will continue to increase the dollar amount of those benefits. In relative terms, more and more of a person's Social Security benefit will be taxed.

Required Replacement Ratios Broken Down by Social Security and Other Sources

2008 Baseline Results Compared to Prior Studies

The graph below compares the 2008 baseline results with the 2004 and 2001 results. The needed Replacement Ratios increased from 2001 to 2004 and again from 2004 to 2008.



The increase in required replacement ratios from 2004 to 2008 occurred primarily at income levels of $60,000 and below. According to the most recent CES data, employees at these income levels were not able to reduce their expenditures at retirement by as much as in prior years. This means that they now need higher replacement ratios to maintain their standard of living. The two largest expenditure categories for employees earning $60,000 or less are shelter and transportation. As shown in the table below, the percentage reduction in these expenditures that occurs at retirement was significantly less according to the most recent CES data than according to the data used in 2004.

Percent Reduction in Expenditures 2004 and 2008

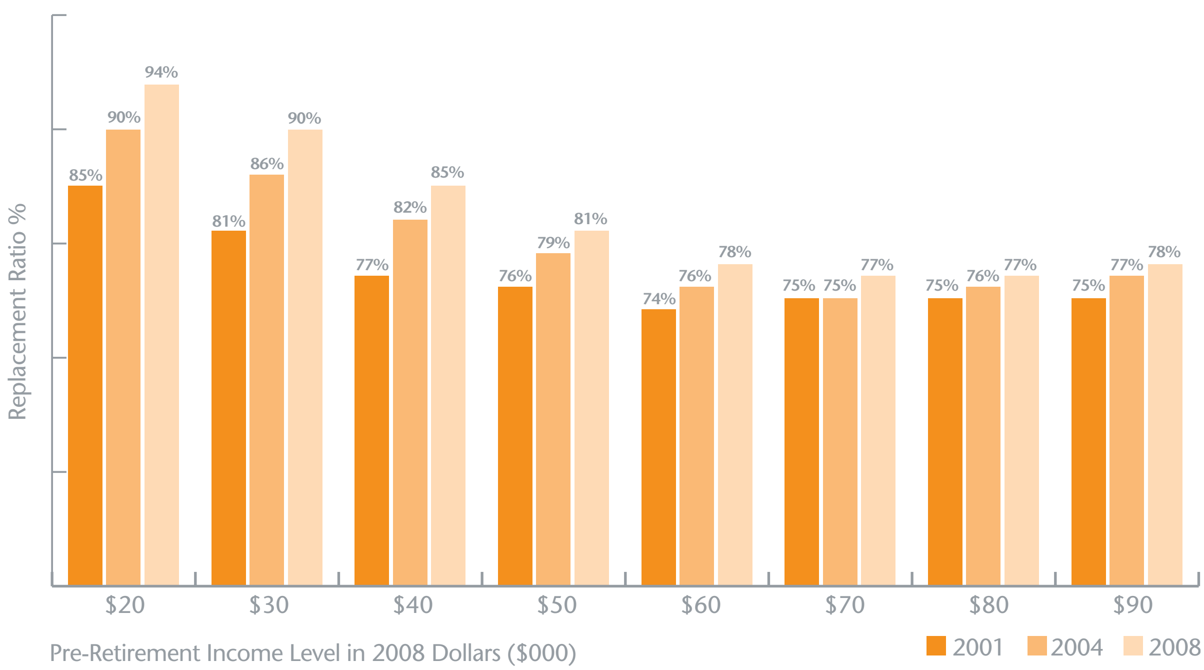
	Percentage Reduction in Expenditures That Occurs at Retirement	
CES Data Used	Shelter (%)	Transportation (%)
2004 Study	22.4	10.0
2008 Study	15.6	3.6

Expenditure details are shown in Appendix III.

In addition to expenditure changes, indexed tax brackets generally allow employees to pay less in income tax in 2008 than they paid in 2004. At income levels up to $60,000, this generally accounts for an increase in required replacement ratios of approximately 1 percent. For example, taxation changes alone caused the required replacement ratio for a person earning $30,000 to increase from 84 percent in 2004 to 85 percent in 2008. Expenditure changes caused the rest of the increase to 90 percent.

It should be noted that inflation creates a slight distortion in the comparisons. For example, a $50,000 wage earner in 2008 may have been earning approximately $44,000 in 2004, and only $41,000 – $42,000 in 2001. Thus, it may be more appropriate to compare a person earning $50,000 in 2008 with a person earning $44,000, rather than $50,000, in 2004. The following chart makes this adjustment. It compares the current study's results with adjusted results from prior studies, where adjustments are made for inter-period inflation.

Comparison of 2001, 2004, and 2008 Required Replacement Ratios, Adjusted for Inflation



The table below compares the 2004 and 2008 results, including the percentage of income expected to be replaced by Social Security. The table shows that even though the total amount of income needed at retirement is as much as 6 percent higher in 2008 than in 2004, the amount to be provided by private sources increases by no more than 3 percent, and it actually decreases at all income levels over $60,000. This is because Social Security is expected to replace a larger percentage of pre-retirement income in 2008 than in 2004.

Replacement Ratios from the Current and Prior Studies

	2008 Study			2004 Study		
Pre-Retirement Income ($000)	Social Security (%)	Private and Employer Sources (%)	Total (%)	Social Security (%)	Private and Employer Sources (%)	Total (%)
20	69	25	94	65	24	89
30	59	31	90	56	28	84
40	54	31	85	51	29	80
50	51	30	81	48	29	77
60	46	32	78	43	32	75
70	42	35	77	39	37	76
80	39	38	77	35	42	77
90	36	42	78	33	45	78

Baseline Compared to Tax-Only and Tax-and-Savings Models

Savings and expenditure changes can vary significantly by individual. Thus, it may be appropriate to start with a replacement ratio calculation that disregards these changes, and adjust the calculation on an individual basis. The graph on page 8 shows the baseline Replacement Ratios, and the comparable Replacement Ratios disregarding expenditure changes, and disregarding both expenditure and savings changes.

If a person's savings and expenditures do not change at retirement, the Replacement Ratios needed to maintain the person's standard of living are shown by the A bars. To the extent the person saved before retirement and stopped saving at retirement, the Replacement Ratios decrease. If the person was an average saver, the Replacement Ratios would decrease as shown by the B bars. If the person saved more than average, the Replacement Ratios would decrease even further—to a point below the B bars.

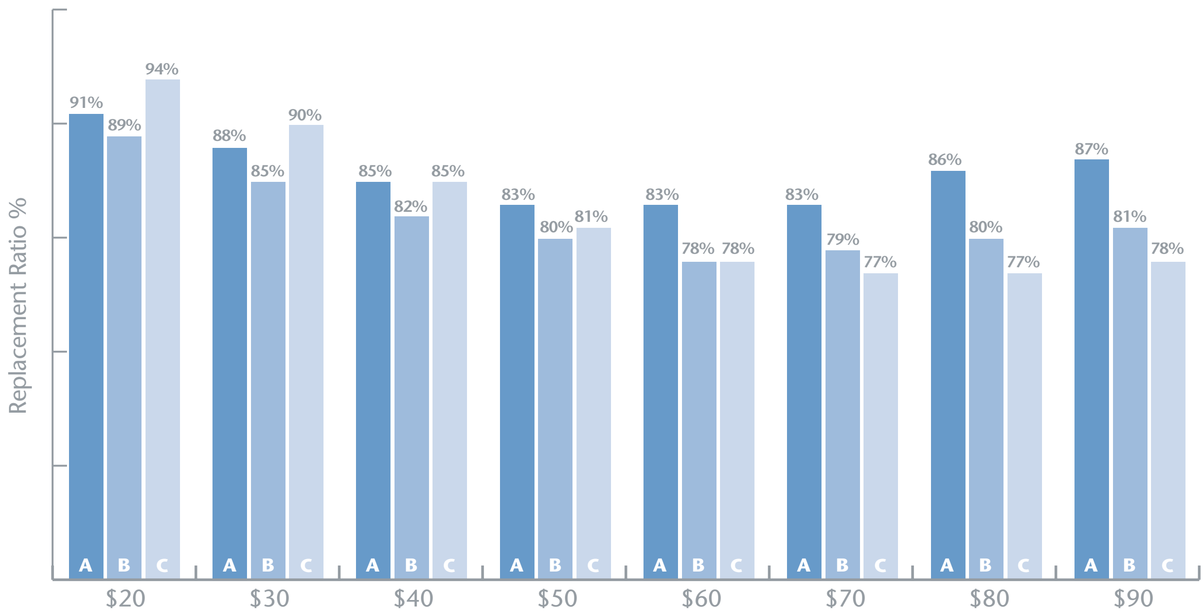
After adjusting for savings, the next step is to adjust for changes in the person's age- and work-related expenditures at retirement. If these expenditures change by an average amount at retirement, the Replacement Ratios would be those represented by the C bars. These are the levels referred to as the "baseline" case on page 2. If age- and work-related expenditures decrease at retirement by more than average, the resulting Replacement Ratios would be less than those shown by the C bars.

Important observations from this analysis include:

- If an individual's expenditure and savings amounts do not change at retirement, needed Replacement Ratios (A bars on the left) range from 83 percent – 91 percent, versus the baseline of 77 percent – 94 percent (C bars on the right). The largest difference is for people at the highest income levels. This is because these people saved the most before retirement and are also expected to have the largest reduction in their expenditures at retirement. Together, these factors significantly decrease their required replacement ratios. For example, these factors decrease the required replacement ratio for a person earning $90,000 from 87 percent to 78 percent.

- Line (10) of Appendix III shows that expected expenditures increase at retirement for lower income people but decrease for higher income people. This is because, unlike their higher income counterparts, lower income people are not expected to be able to reduce their shelter and transportation expenses by enough at retirement to offset the increased cost of health care. Since their expected expenditures increase at retirement, so do their needed replacement ratios. This can be seen by comparing the C bars in the following chart (which reflect the expected expenditure changes) with the B bars (which do not reflect expected expenditure changes). The C bars are higher than the B bars for lower income people, but lower for the higher income people.

Replacement Ratios With and Without Savings and Expenditure Changes



Pre-Retirement Income Level ($000)

A Taxes Only (Ignores Savings and Expenditure Changes)
B Taxes and Savings (Ignores Expenditure Changes)
C Taxes, Savings, and Expenditure Changes (Baseline Model)

Baseline Case and Adjustments for Other Family Situations

The baseline family situation for this study is one wage earner retiring at age 65 with a spouse three years younger. The following table shows adjustments that should be made to the baseline Replacement Ratio targets to reflect three other family situations. The adjustments are driven by three factors:

1. Income tax tables and tax exemptions that apply in different situations,

2. The amount of Social Security taxes paid (e.g., a two-worker family may pay higher aggregate Social Security taxes at a given pre-retirement income level), and

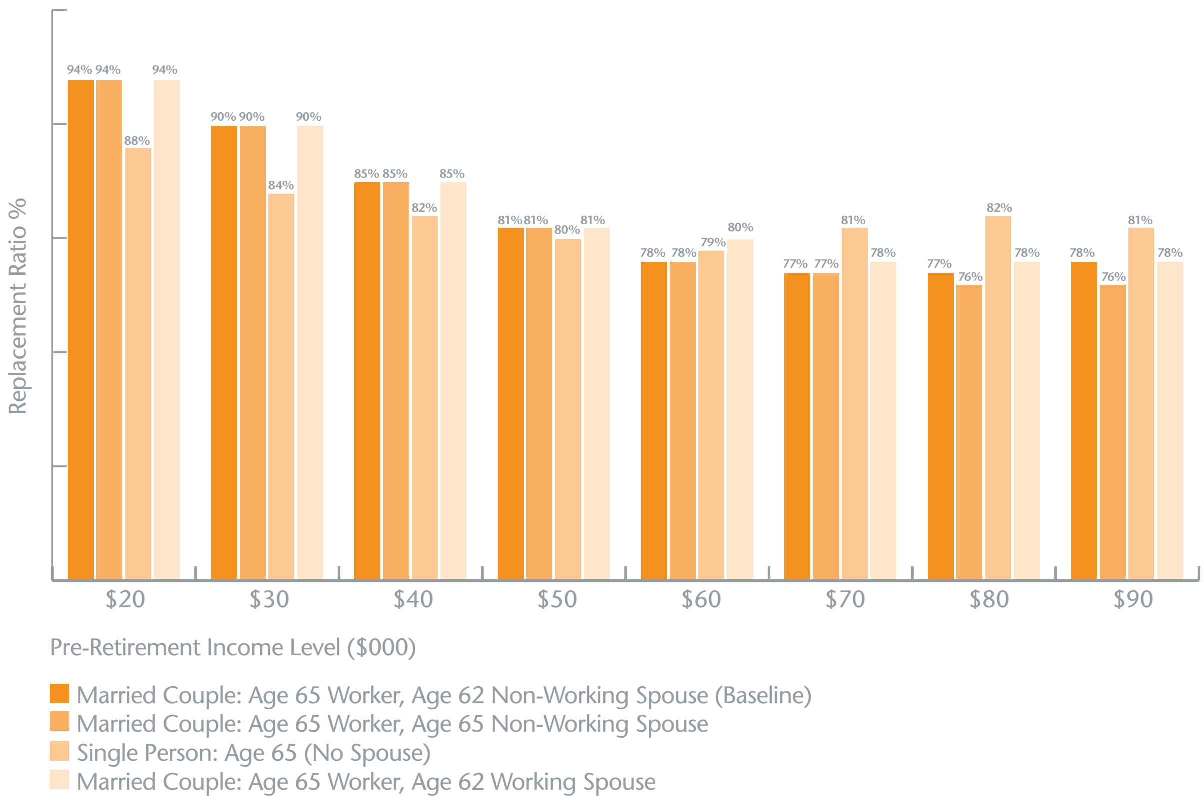
3. The amount of the couple's aggregate Social Security benefit, which influences how much of the total retirement income is subject to tax.

Replacement Ratio Targets for the Baseline Situation and Adjustments Required for Other Family Situations

Pre-Retirement Income ($000)	Baseline Couple 65/62 One Working (%)	Single Age 65 (%)	Couple 65/65 One Working (%)	Couple 65/62 Both Working (%)
20	94	88 (-6)	94 (0)	94 (0)
30	90	84 (-6)	90 (0)	90 (0)
40	85	82 (-3)	85 (0)	85 (0)
50	81	80 (-1)	81 (0)	81 (0)
60	78	79 (+1)	78 (0)	80 (+2)
70	77	81 (+4)	77 (0)	78 (+1)
80	77	82 (+5)	76 (-1)	78 (+1)
90	78	81 (+3)	76(-2)	78 (0)

After making the adjustments shown in the table on page 9, resulting Replacement Ratios for the baseline and three other family situations are as shown below:

Replacement Ratio Targets for Other Family Situations



Single: Compared to Married Baseline

At the lowest income levels, pre-retirement taxes are higher for singles than for married couples. As a result, the single worker has less to spend before retirement, and therefore, has less to replace after retirement. The Replacement Ratios at lower income levels are therefore smaller than for the married family unit (baseline or others.) At higher income levels, pre-retirement taxes are also higher for singles. However, post-retirement taxes are also far greater at the higher income levels for singles. The net effect is that single people at higher income levels actually need higher Replacement Ratios than married couples. Also, at a given level of pre-retirement income, the effect of taxation of Social Security benefits is more pronounced for the single worker. The retirement income thresholds at which Social Security benefits become subject to income tax are lower for a single taxpayer. The threshold at which 50 percent of Social Security becomes taxable is $25,000 for a single taxpayer (compared to $32,000 for married taxpayers), and the threshold at which 85 percent becomes taxable is $34,000 for a single taxpayer (compared to $44,000 for married taxpayers).

Married: One Wage Earner, Both Age 65

This section of the report also compares two other married situations to the baseline Replacement Ratios. The first is a married couple, one wage earner, both age 65. Since the age 65 spouse gets an increased standard deduction, post-retirement taxes are reduced somewhat when compared to the baseline case (where the spouse is age 62.) Also, the family Social Security benefits are 1.491 times the wage earner's primary benefit (compared to 1.375 when the spouse is age 62).

At the $60,000 gross pre-retirement income level and below, the retirees do not pay any significant income taxes, so there is no difference in the Replacement Ratios due to taxes. The combination of the increased standard deduction and the increased family Social Security benefits makes a slight difference in the Replacement Ratios at the $80,000 and $90,000 income levels.

Married: Two Wage Earners, Ages 65 and 62

Another family situation focuses on two wage earners, one age 65 and one age 62. We assumed that the primary wage earner brings in 60 percent of the family unit's income and the spouse brings in 40 percent. Results for this family situation are very similar to the baseline case.

Replacement Ratios at Higher Income Levels

For the first time with this update, some usable Consumer Expenditure Survey (CES) data was available at income levels above $90,000. This data is less complete than at income levels at $90,000 and below. Using the available data, we have extended the replacement ratio calculations to income levels of $150,000, $200,000, and $250,000. As with prior studies, we wanted to determine whether the replacement ratios continue to trend upward above the $90,000 income level, the top level in the formal study.

The following table and graph show that the ratios do continue to trend upward. Although higher pre-retirement taxes paid by higher income individuals have a decreasing effect on replacement ratios, higher post-retirement taxes have an even more powerful effect and drive the ratios upward. The net effect is that higher replacement ratios are needed as income increases.

It would be difficult for high-income individuals to generate sufficient retirement income solely from Social Security and an employer's qualified plans. These individuals generally need to receive a substantial portion of their retirement income from personal savings, a non-qualified arrangement, or both.

Replacement Ratios: Higher Income Levels

Pre-Retirement Income ($000)	Social Security (%)	Private and Employer Sources (%)	Total (%)
80	39	38	77
90	36	42	78
150	23	61	84
200	17	69	86
250	14	74	88

Baseline and Projected Higher Income Replacement Ratios

Savings as a Percentage of Gross Pre-Retirement Income

Savings rates are one of the three major components (along with taxes and expenditure changes) in the Replacement Ratio equation. Higher savings rates both reduce the needed replacement percentages (employees are assumed to cease their savings plans once retired) and provide the employee with the ability to develop the needed savings accounts.

For this and each prior study, we developed savings rates using recent CES data. Savings is defined as the sum of the following:

1. Net acquisition of stocks and bonds
2. Net investment in farm or business
3. Net change in savings and checking accounts
4. Net change in money owed
5. Net change in U.S. savings bond holdings
6. Contributions to retirement plans

This definition includes an element of investment return as well as a pure savings element. Savings rates used for this study are based on actual savings rates found in the CES data for active employees age 50 – 64. These rates are shown below

Actual Savings Rates for Active Employees Age 50 – 64

Pre-Retirement Income ($000)	Average Savings Rate (%)
20	1.98
30	2.79
40	3.45
50	4.05
60	4.54
70	4.91
80	5.24
90	5.57

How to Use Replacement Ratios

For many years, replacement ratios have been used to measure retirement adequacy. Typical users include employers reviewing plan design, financial planners and employees preparing for retirement.

This report shows the replacement ratios that "average" people are expected to need at retirement to maintain their pre-retirement standard of living. These ratios are based on averages. Adjustments should be made when analyzing retirement needs of specific individuals. Some of the factors that may vary from person to person include the following.

Individual Savings Rates

The baseline results assume people save at an "average" rate while they are working (see average savings rates on page 13.) People who save less than average will need higher replacement ratios. This is because they spend more and have a higher standard of living before they retire. Thus, they need more retirement income to maintain that standard of living. On the other hand, people who save more than average need less retirement income because they only need to support a lower standard of living.

Changes in Individual Medical Expenses

This report's baseline results assume that people's medical expenses increase by an "average" amount when they retire. The average increase is generally $1,000 – $1,500 per year (see Appendix III for details). People whose expenses increase by more than average, such as people with employer-paid medical benefits that stop at retirement, will need higher replacement ratios. Due to the significant variations that may occur, this issue is covered in more detail in subsequent sections of this report.

Medicare Part D

The average change in medical expenses, as measured for this report, is based on expenditure survey data prior to the establishment of Medicare Part D. To the extent that Medicare Part D decreases a person's postretirement medical expenses, it will also decrease his or her needed replacement ratio. We estimate that this could potentially decrease the needed replacement ratios by up to 1 percent at the highest salary levels and up to 5 percent at the lowest salary levels.

Other Expenditure Changes

Other changes in expenses that occur at retirement may also cause a person's needed replacement ratio to be more or less than the baseline. For example, people who retire right after they finish paying for a child's college education, or right after they finish paying off their mortgage, will generally need lower replacement ratios. Other people, such as those beginning to care for an elderly parent, may need higher replacement ratios.

With defined contribution, cash balance and other hybrid plans becoming a primary retirement source for many retirees, analysis beyond traditional replacement ratios may be needed to determine whether a person has enough money to retire. The next two sections of this report, "Replacement Ratios as Lump Sums" and "Tapping the Piggy Bank," provide additional guidance for these situations.

Replacement Ratios as Lump Sums

Traditionally, retirement adequacy has been measured in terms of replacement ratios. However, in situations where savings accounts (some combination of IRAs, personal savings, and balances in 401(k) or similar plans) are a person's largest source of retirement income, it is also important to define how large a lump sum is needed to provide an adequate retirement. The answer depends on a number of factors, such as:

1. **How long will a person live after retirement?** Those who live longer after retiring need larger lump sums. People retiring at younger ages generally need more than people retiring at older ages, because they have longer remaining lifetimes. Also, females generally need more than males because they live longer. An average male retiring at age 65 lives another 18.3 years, while the average female lives another 20.5 years. Lifestyle, health, and other factors also influence one's lifespan.

2. **How much will inflation increase a retiree's cost of living after retirement?** The higher the rate of inflation, the larger the lump sum needed.

3. **What rate of investment return will the lump sum produce?** The higher the rate, the smaller the lump sum needed at retirement. Examples of how different rates of investment return affect the lump sum needed are shown in the table below. This table shows the lump sum amount needed at retirement to provide an income of $100 per month for life to an average male or female retiring at age 65. While invested, the lump sum is assumed to return 4 percent, 6 percent, or 8 percent per year. In all cases, the $100 payment is assumed to increase 3 percent per year to allow the retiree to keep up with inflation.

Lump Sum Needed at Retirement (Age 65) to Provide a $100 Monthly Income for a Person who Lives an Average Lifetime

	Assumed Annual Rate of Investment Return After Retirement		
	4%	6%	8%
Male	$19,509	$16,160	$13,669
Female	$21,635	$17,571	$14,633

As you can see from the above chart, the lump sum needed at retirement is about 45 percent more if investments return only 4 percent, rather than 8 percent. Also, on average, women need about 9 percent more than men because they live longer.

Since the amount of the lump sum needed at retirement depends on so many factors, it is hard to know exactly how much to target. One approach is to target the amount that's needed to buy an annuity that will provide the desired level of retirement income. Using this approach, and annuity prices that were quoted to Aon at the time this report was being written, we can calculate the lump sum amounts needed at retirement. These amounts, expressed as a multiple of a person's salary at retirement, are shown in the table on page 16.

Lump Sum Amounts Needed at Retirement from Private and Employer Sources As a Multiple of Final Pay

Pre-Retirement Income ($000)	Baseline Replacement Ratio Needed (% of final pay)	Equivalent Lump Sum Needed (as a multiple of final pay)	
		Male	Female
20	25	4.0	4.5
30	31	5.0	5.5
40	31	5.0	5.5
50	30	4.8	5.4
60	32	5.2	5.7
70	35	5.6	6.3
80	38	6.1	6.8
90	42	6.8	7.5

The lump sum multiples shown above are in addition to income that is expected to be provided by Social Security. Employees with a defined benefit plan will have part of their post-retirement income provided through that program. Thus, they won't need as large a lump as those indicated above.

Tapping the Piggy Bank

Using your account balance in retirement

Unless you are covered by a traditional pension plan, you may have to rely on your savings accounts (some combination of IRAs, personal savings, and balances in 401(k) or similar plans) as your primary source of retirement income. If so, you can use the Replacement Ratios as Lump Sums section of this report as a guide to how much you should accumulate by the time you retire. Even if you accumulate the desired amount, however, there are more challenges. What do you do after retirement? How do you manage your account? How much of it should you spend each year? While the answers are not simple, two basic approaches to spending your retirement savings are described in this section:

Approach #1: Manage Your Own Account: Under this approach, you would keep your money invested and withdraw amounts as you need them.

Approach #2: Buy an annuity: Under this approach, you would buy an annuity that would provide you with a specified amount of income for the rest of your life.

Either of these two approaches could be applied to your entire account balance. In many cases, however, it may be prudent to do some of each—buy an annuity with part of your balance, and invest the rest, making periodic withdrawals from the invested portion. Many factors should be considered in making this decision. The rest of this section assumes that one approach is used exclusively. Results are then compared.

Approach #1: Manage Your Own Account

Managing your own account offers a lot of flexibility, but there are also risks. The primary risks include:

1. **Investment Return:** The amount you can spend in retirement depends greatly on the investment return your account earns. Every extra dollar of return gives you an extra dollar to spend. On the other hand, every dollar you lose takes away a dollar. To illustrate the variability, a person who retires at age 65 and lives an average lifetime will be able to withdraw approximately 20 percent more every year if their account earns 6 percent annually, rather than 4 percent. Unfortunately, higher yielding investments usually come with higher risks. Investments should be chosen that are appropriate for your situation.

2. **Longevity:** Longevity refers to the age at which you die, and it's generally out of your control. If you live too long, you can outlive your savings. The following chart shows how many years you should plan to have your account last, depending on how sure you want to be that you do not outlive your assets.

Number of Years Your Retirement Account Should Last

Desired Probability That You Will Not Outlive Your Assets	Number of Years You Should Prepare For		
	Male only (65)	Female only (62)	Married Couple (Male 65, and Female 62)
50%	19	24	27
75%	24	30	31
95%	31	38	38

3. **Inflation:** Another risk is inflation. One way to protect against inflation is to plan to withdraw less from your account initially and increase that amount over time to offset inflation. The more inflation you expect, the less you should spend in your early years of retirement.

4. **Expenditure Changes:** Another factor is that it is hard to predict is how your expenditure needs (long-term care, medical, housing, travel, food, family, etc.) will change in the years after you retire. Although hard to predict, possible changes should be considered when you determine how much to withdraw each year from your account.

Several analyses done on this subject have suggested a standard "withdrawal rate" of approximately 4 percent. Under this standard, if you have $100,000 in a savings account, you should withdraw $4,000 in the first year. After that, you increase the withdrawal for inflation.

The 4 percent rule of thumb is a reasonable estimate for many situations. However, the right withdrawal rate for you is likely to be different. To give you an idea of reasonable withdrawal rates, we made some assumptions, including:

- **Investment Return:** We assumed your investment account would consist of a mix of 60 percent equities and 40 percent fixed income, and would produce a mean return of 7.8 percent, with a standard deviation of 10.7 percent.

- **Inflation:** We assumed you would increase your withdrawals from the account 3 percent per year to cover inflation after you retire.

- **Longevity:** We assumed that standard 2008 mortality rates would apply to you.

- **Conservatism:** We assumed you would want no more than a 5 percent chance that your account would run out before you die.

- **Expenditures for a Couple:** For the "basecase couple," we assumed the annual withdrawal amount would decrease by 25 percent upon the couple's first death. For example, assume a couple is spending $10,000 per year while both members are alive. When the first person in the couple dies, we assume the other person will need to spend only $7,500 per year (adjusted over time for inflation) for the rest of his or her lifetime.

Based on these assumptions, the following withdrawal rates are calculated:

Projected Withdrawal Rates with an Expected Annual Rate of Return of 7.8 percent

Age	Percentage of an account that can be withdrawn and still have a 95 percent chance of not running out of money for your lifetime (%)		
	Base Case Couple *	Male Only	Female Only
55	3.5	3.7	3.5
60	3.8	4.1	3.8
65	4.3	4.6	4.2
70	4.8	5.1	4.7
75	5.7	6.2	5.6
80	6.6	7.6	6.6
85	8.1	9.3	8.1

* *The basecase couple is a male at the age shown and a female three years younger. The annual withdrawal amount is assumed to decrease 25% when the first person in the couple dies.*

The withdrawal rates would be different if your expected return (after any fund expenses) is different than the assumed annual rate of 7.8 percent. The effect of a ½ percent reduction is shown in the following table:

Comparison of Projected Withdrawal Rates with Annual Rate of Return at 7.8 percent and 7.3 percent

Age	Percentage of an account that can be withdrawn and still have a 95 percent chance of not running out of money for your lifetime (%)		
	Male with an Average Return of 7.8%	Male with an Average Return of 7.3%	Change
55	3.7	3.5	-0.2
65	4.6	4.4	-0.2
75	6.2	6.1	-0.1

If you manage your own account, there's a tradeoff between the amount you can withdraw and the chance that you'll run out of money. The preceding calculations assume you want only a 5 percent chance of running run out of money. This is fairly small, and you don't have to be that conservative. If a 65-year old male can accept a 25 percent chance of running out of money (instead of just 5 percent), he could increase his initial withdrawal rate from 4.6 percent all the way up to 6.6 percent. If he can accept a 50 percent chance, his initial withdrawal rate would be 8.6 percent.

Approach #2: Buy an Annuity

It is possible to avoid the risks of investment return and longevity, and reduce the risk of inflation, by purchasing an inflation protected annuity. Annuity buyers need to shop carefully, however, because the price of annuities can vary significantly among insurance companies. Based on annuity prices quoted to Aon at the time this report was being written, the initial withdrawal rate you might expect from an annuity product that provides a payment that increases 3 percent per year over its lifetime is shown below. The withdrawal rates are for illustration purposes only. Actual withdrawal rates and annuity prices vary from carrier to carrier, and from day to day, based on economic and other factors.

Initial Withdrawal Rate Expected for Annuity With 3 percent Increase per Year

Age	Male Only	Female Only
65	6.2%	5.6%
70	7.5%	6.6%

Comparing the Approaches

It would seem that buying an inflation protected annuity would be the obvious choice. You are protected against outliving your money (and 100 percent certain, rather than 95 percent!), and you get a larger initial payment. For example, a male age 65 with $300,000 in his savings accounts could get the following choices.

Initial Withdrawal Amounts for a Male Age 65

	Initial Withdrawal	
Approach	As % of the Account	$Amount
Manage your own account with a 95% chance of not running out of money	4.6%	$13,800
Buy an annuity	6.2%	$18,600

Why then would you want to manage your own account? There are two major advantages. First, when you manage your own account, whatever is left when you die can go to your heirs. This can be a significant death benefit. Since the 4.6 percent withdrawal rate was calculated to give you a 95 percent chance of never running out of money, it also means that something will be left in your account when you die, 95 percent of the time. In the above example (a 65-year old male who retires with a $300,000 account and who withdraws $13,800 per year, adjusted for inflation), the average amount left at your death would be almost $600,000. The advantages of providing your heirs with this death benefit should be weighed against the increased income you could receive from an annuity (the annuity in our example is assumed to provide no death benefit.) Of course, the exact amount that might be left in your account when you die depends on when you die, past fund returns, and other factors.

Second, you can periodically adjust your withdrawal rate based on a review of your account balance. Many times, this will mean an increase. For example, take a male age 65 with an account balance of $300,000. He takes out $13,800 (4.6 percent) in the first year. Five years later he is withdrawing $15,998 per year (assuming inflation is 3 percent per year). If his account balance has grown to $320,000 due to investment returns greater than his withdrawal, he could adjust his withdrawals up to $16,320 (5.1 percent of the $320,000).

In the Final Analysis

So, what should you do? Manage your own account or buy an annuity? It depends. The following charts summarize the advantages and disadvantages for a person retiring at age 65.

Pros and Cons: Managing Your Own Money

	Base Case Couple	Male age 65	Female age 62
Initial Withdraw Rate to achieve a 95% chance of not running out of money	4.3%	4.6%	4.2%
Advantages	You have immediate access to the money. You can withdraw more if the funds do better than expected. Your heirs will have a death benefit when you die. You can buy an annuity at some point in the future.		
Disadvantages	There is lesser initial income than the annuity option. You bear the risk of poor investment performance. You could outlive your account. You have to manage the money.		

Pros and Cons: Buying an Annuity

	Male age 65	Female age 62
Annuity Payment	6.2%	5.6%
Advantages	You have higher initial income. You cannot outlive the income. You have no investment risk or decisions to make.	
Disadvantages	You lose flexibility over the timing of withdrawals. You lose the possibility of much greater asset returns. There is no death benefit (unless specified in the annuity). You are locked in to one insurance company.	

The best answer may be to do some of both. Invest part of the money for long term returns and death benefit protection, and buy an annuity with the rest to hedge against the investment return and longevity risks.

Effect of Medical Benefits on Replacement Ratios

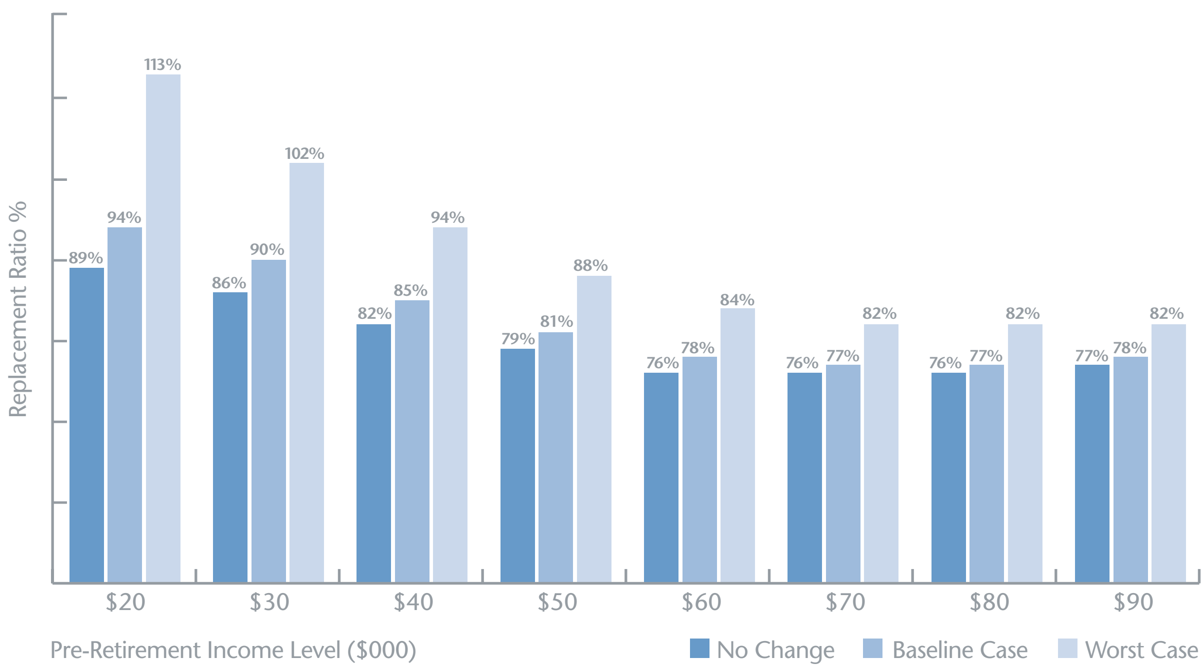
Fewer and fewer employers are sponsoring post-retirement medical programs. Thus, many employees have either lost their post-retirement medical benefits completely, or had significant costs shifted to them. The baseline replacement ratios provided in this report are based on averages according to CES data. According to these averages, the typical employee spends more on health care after retiring than before. However, situations and medical costs can vary widely from person to person. Therefore, individuals should consider their own situation and adjust the replacement ratios as appropriate.

To estimate the extent to which required replacement ratios may vary, we analyzed three possible scenarios:

1. **No Change:** The first scenario is close to a "best case." It's not absolutely the best possible case, but it is close. Under this scenario, the employee is assumed to incur no change in his or her medical costs at retirement. It's called the "No Change" scenario.
2. **Baseline:** The second scenario is the baseline case described on page 2. It's called the "Baseline Case." Under this scenario, the employee's medical expenditures are assumed to increase at retirement by the amounts shown in Appendix III.
3. **Worst Case:** The third scenario assumes the employee's medical costs increase significantly at retirement. Under this scenario, medical costs are assumed to increase by $400 per month when the employee retires. This represents the combined cost of Medicare Parts B and D premiums, and a premium for supplemental coverage.

Replacement ratio results for the three scenarios are shown below.

Replacement Ratios for Three Scenarios of Postretirement Medical Benefit Changes



As shown above, the level of medical benefits provided before and after retirement can have a significant effect on post-retirement income needs. Most employees will be somewhere between the "no change" and "worst case" scenarios.

Accumulating Wealth

When should you start saving for retirement?

The sooner, the better! Compound interest works wonders. Saving at age 20 provides twice as much benefit as saving at age 30. Saving at age 30 provides twice as much benefit as saving at age 40. You can say the same about any two ages that are ten years apart. So, whatever age you are, the best time to save is now.

The following charts show how much needs to be saved annually, as a percentage of salary, to achieve the replacements ratios recommended in this report. Calculations assume a person starts saving at age 25, 35, 45, or 55. All the projections assume you retire at age 65, and that full Social Security benefits will be available. The salary shown is the current salary, and it is assumed to increase 3 percent per year until retirement. Finally, we assumed a 7 percent rate of return on savings.

Yearly Savings as a Percentage of Pay for Males

Current Salary ($000)	Goal as a multiple of pay at retirement	% of pay that needs to be saved each year until age 65, if saving starts at age x			
		25	35	45	55
20	3.1	3.5	5.8	10.9	26.7
30	3.8	4.2	7.1	13.3	32.8
40	3.8	4.2	7.1	13.3	32.8
50	3.7	4.1	6.9	13.0	31.9
60	4.0	4.5	7.5	14.0	34.5
70	4.3	4.8	8.1	15.1	37.1
80	4.7	5.2	8.8	16.5	40.5
90	5.2	5.8	9.7	18.2	44.9

Yearly Savings as a Percentage of Pay for Females

Current Salary ($000)	Goal as a multiple of pay at retirement	% of pay that needs to be saved each year until age 65, if saving starts at age x			
		25	35	45	55
20	3.3	3.7	6.2	11.6	28.5
30	4.1	4.6	7.7	14.4	35.4
40	4.1	4.6	7.7	14.4	35.4
50	4.0	4.5	7.5	14.0	34.5
60	4.3	4.8	8.1	15.1	37.1
70	4.7	5.2	8.8	16.5	40.5
80	5.1	5.7	9.5	17.9	44.0
90	5.6	6.2	10.5	19.6	48.3

Conclusion

This 2008 edition of the ***Replacement Ratio Study***™ reveals an increase in the amount of income people need at retirement to maintain their standard of living. Required replacement ratios now range from 77 percent for a person earning $80,000 to 94 percent for a person earning $20,000. These ratios are slightly higher than those that were calculated in the 2004 update, and significantly higher than those shown in the original 1980 President's Commission report. Thus, existing "rules of thumb" that are based on prior studies should be updated as appropriate.

Although the trend of increasing replacement ratios began a decade ago, most of the increases found in this update are generally small. The only increases of more than 1 percent are for people earning $60,000 or less per year. The greatest increase is for people with the lowest levels of pre-retirement income. Unfortunately, this is the group that may have the hardest time planning and providing for their own retirement.

Three factors make retirement planning more important than ever before. First, the baby boomers are approaching retirement. How well this cohort manages the transition will affect not only the personal well-being of a large cohort of U.S. workers, but will also influence public policy and the corporate workforce of tomorrow. Second, the trend away from employer-sponsored defined benefit and postretirement medical plans puts more responsibility on individual workers to actively plan and provide for their own retirement. Third, the amount of income required for a person to maintain their standard of living after retiring is at an all-time high. The luxury of being able to get by on significantly less income than a person was earning before retirement may now just be part of the "good old days."

To help meet the challenge, this study provides employees and plan sponsors with the information needed to begin planning for retirement effectively. It's a journey that can have a happy ending.

Appendix I

Determining Replacement Ratios

The data in the U.S. Department of Labor's Bureau of Labor Statistics' Consumer Expenditure Survey (CES) allows us to quantify key items in the Replacement Ratio formulas shown here.

The first formula (expenditure, tax, and savings model) takes into account changes in age- and work-related expenditures after retirement, in addition to taking into account savings patterns and changes in taxes after retirement. The second formula (tax and savings model) disregards changes in age- and work-related expenditures, and the third formula (tax only model) disregards both savings and changes in age- and work-related expenditures. The symbols used in the formulas are defined as follows:

PrRPG:	Gross pre-retirement income
PrRT:	Pre-retirement taxes
PrRS:	Pre-retirement savings
NCCR:	Change in age- and work-related expenditures
PoRT:	Post-retirement taxes

The "Expenditure, Tax, and Savings" Model:

Replacement Ratio = f(Taxes, Savings, Expenditure Changes)

$$\textbf{RR} = \frac{\text{PrRPG} - \text{PrRT} - \text{PrRS} \pm \text{NCCR} + \text{PoRT}}{\text{PrRPG}}$$

The "Tax and Savings" Model:

Replacement Ratio = f(Taxes, Savings)

$$\textbf{RR} = \frac{\text{PrRPG} - \text{PrRT} - \text{PrRS} + \text{PoRT}}{\text{PrRPG}}$$

The "Tax Only" Model:

Replacement Ratio = f(Taxes)

$$\textbf{RR} = \frac{\text{PrRPG} - \text{PrRT} + \text{PoRT}}{\text{PrRPG}}$$

Replacement Ratio Example

PrRPG	=	Gross pre-retirement income	$60,000
PrRT	–	Pre-retirement taxes	10,967
PrRS	–	Pre-retirement savings	2,225
NCCR	±	Change in expenditures at retirement	115
PoRT	+	Post-retirement taxes	49
	=	Retirement income needed	$46,972
PrRPG	÷	Gross pre-retirement income	$60,000
		Replacement Ratio	78%

The development of the replacement ratios for each gross pre-retirement income level is shown in Appendix II.

Appendix II

Results of 2008 Retirement Income Replacement Ratio Study—Baseline Case

2008 Baseline Case Results

Married Couple (One Wage Earner); Age 65 Worker, Age 62 Spouse	2008 Pre-Retirement Income Level							
	$20,000	$30,000	$40,000	$50,000	$60,000	$70,000	$80,000	$90,000
1. Gross Pre-Retirement Income	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000
2. Pre-Retirement Taxes								
a. Social Security	1,530	2,295	3,060	3,825	4,590	5,355	6,120	6,885
b. Federal Income	191	1,166	2,397	3,839	5,277	6,713	8,151	10,017
c. State Income	40	243	500	800	1,100	1,399	1,699	2,087
d. Total Pre-Retirement Taxes [a + b + c]	1,761	3,704	5,957	8,464	10,967	13,467	15,970	18,989
3. Disposable Income After Taxes [1 - 2d]	18,239	26,296	34,043	41,536	49,033	56,533	64,030	71,011
4. Pre-Retirement Savings								
a. As a % of Disposable Income	1.98%	2.79%	3.45%	4.05%	4.54%	4.91%	5.24%	5.57%
b. Amount Saved [3 x 4a]	362	733	1,174	1,684	2,225	2,774	3,354	3,958
5. Pre-Retirement Spendable Income [3 - 4b]	17,877	25,563	32,869	39,852	46,808	53,759	60,676	67,053
6. Expenditure Changes at Retirement	1,020	1,385	1,228	749	115	(593)	(1,298)	(1,886)
7. Required Post-Retirement Spendable Income [5+6]	18,897	26,948	34,097	40,601	46,923	53,166	59,378	65,167
8. Postretirement Taxes								
a. Federal Income	0	0	0	0	41	910	2,097	3,995
b. State Income	0	0	0	0	8	167	369	674
c. Total Post-Retirement Taxes [a + b]	0	0	0	0	49	1,077	2,466	4,669
9. Required Gross Post-Tax Retirement Income [7+8c]	18,897	26,948	34,097	40,601	46,972	54,243	61,844	69,836
10. Required Replacement Ratio [9 / 1]	94%	90%	85%	81%	78%	77%	77%	78%
11. Estimated Social Security Benefit	13,827	17,655	21,467	25,295	27,869	29,568	31,053	32,472
12. Social Security Replacement Ratio [11 / 1]	69%	59%	54%	51%	46%	42%	39%	36%
13. Required Repl Ratio from Other Sources [10 - 12]	25%	31%	31%	30%	32%	35%	38%	42%

Appendix III

Expenditure Changes

2008 Analysis of Expenditure Changes at Retirement

Expenditure Category	Expected Expenditure for a 2008 Pre-Retirement Income Level of:							
	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000
1. Reading And Education								
a. Working	249	341	425	506	591	685	790	900
b. Retired	219	289	354	415	477	539	602	661
c. Increase (Decrease) [(b) - (a)]	(30)	(52)	(71)	(91)	(114)	(146)	(188)	(239)
2. Health Care								
a. Working	1,549	1,824	2,044	2,226	2,390	2,546	2,692	2,819
b. Retired	2,482	2,915	3,202	3,374	3,476	3,538	3,580	3,620
c. Increase (Decrease) [(b) - (a)]	933	1,091	1,158	1,148	1,086	992	888	801
3. Utilities								
a. Working	2,275	2,555	2,779	2,960	3,130	3,297	3,451	3,578
b. Retired	2,436	2,783	3,052	3,259	3,414	3,510	3,526	3,451
c. Increase (Decrease) [(b) - (a)]	161	228	273	299	284	213	75	(127)
4. Household Operations								
a. Working	213	277	335	392	452	514	583	656
b. Retired	340	435	517	590	661	732	804	873
c. Increase (Decrease) [(b) - (a)]	127	158	182	198	209	218	221	217
5. Shelter								
a. Working	5,942	7,090	8,107	9,018	9,885	10,726	11,526	12,238
b. Retired	5,137	6,071	6,848	7,533	8,219	8,948	9,717	10,471
c. Increase (Decrease) [(b) - (a)]	(805)	(1,019)	(1,259)	(1,485)	(1,666)	(1,778)	(1,809)	(1,767)
6. Entertainment								
a. Working	1,046	1,301	1,525	1,723	1,909	2,085	2,252	2,399
b. Retired	1,297	1,655	1,954	2,204	2,412	2,571	2,679	2,729
c. Increase (Decrease) [(b) - (a)]	251	354	429	481	503	486	427	330
7. Food								
a. Working	3,715	4,201	4,617	4,980	5,328	5,678	6,015	6,316
b. Retired	4,041	4,814	5,350	5,710	5,971	6,166	6,290	6,343
c. Increase (Decrease) [(b) - (a)]	326	613	733	730	643	488	275	27
8. Apparel and Services								
a. Working	631	787	928	1,058	1,182	1,304	1,422	1,531
b. Retired	589	758	897	1,013	1,122	1,227	1,330	1,429
c. Increase (Decrease) [(b) - (a)]	(42)	(29)	(31)	(45)	(60)	(77)	(92)	(102)
9. Transportation								
a. Working	4,896	6,223	7,383	8,413	9,386	10,310	11,187	11,963
b. Retired	4,995	6,264	7,197	7,927	8,616	9,321	10,092	10,937
c. Increase (Decrease) [(b) - (a)]	99	41	(186)	(486)	(770)	(989)	(1,095)	(1,026)
10. Total Increase (Decrease) in Age- and Work-Related Expenses	1,020	1,385	1,228	749	115	(593)	(1,298)	(1,886)

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BEST PRACTICE

Governance of Public Employee Post-Retirement Benefits Systems (2010) (CORBA) (new)

Background. Public employee post-retirement benefit plans (e.g., retirement plans and other post employment benefits (OPEB) trusts) are typically established by state and/or local law and are governed by boards of trustees (boards, governing boards, trustees) that are subject to legal constraints. In addition to any duties set forth by statute, trustees of post-retirement benefit funds are bound by fiduciary duties, which can be divided into three categories:

- Duty of loyalty – The obligation to act for the exclusive benefit of the plan participants and beneficiaries. The trustees must put the interest of all plan participants and beneficiaries above their own interests or those of any third parties. Regardless of their selection process, fiduciaries must be reminded that they do not represent a specific constituency or interest group.
- Duty of care – The responsibility to administer the plan efficiently and properly. The duty of care includes consideration and monitoring of the financial sustainability of the plan design and funding practices.
- Duty of prudence – The obligation to act prudently in exercising power or discretion over the interests that are the subject of the fiduciary relationship. The general standard is that a trustee should act in a way that a reasonable or prudent person acts in a similar situation or in the conduct of his or her own affairs.

Criteria for selection of most boards of public post-retirement benefit plans are normally set by state statute or other authority that establishes the plan. Governing fiduciaries set strategy and policy, determine decision-making authority, and delegate day-to-day management of the retirement system. Proper board structure and clarity of board roles and responsibilities that are consistently and fairly enforced promote good governance and provide legal protections for both plan fiduciaries and plan participants. Through prudent management, trustees, individually and collectively, must act in the best interest of all plan participants and beneficiaries.

Recommendation. The Government Finance Officers Association (GFOA) recommends that the state or local government or other designated governing entity establish rules of governance for its post-retirement benefit systems that define the key elements necessary for trustees and other fiduciaries to fulfill their responsibilities, in accordance with fiduciary standards. The following governance best practices are recommended:

1) Governance Manual – Adopting and maintaining a written governance manual enables good governance. At a minimum, this manual should include:

   a) An outline of the authority under which the system operates.
   b) A section outlining the roles and responsibilities of the board of trustees, administrator (director or executive director), and staff.
   c) All board-adopted policies and any applicable statutes, regulations, and other relevant documents.
   d) A description of all permanent (standing) committees, with a copy of the committee charter.

2) Governing Boards:

   a) Size of Board – The post-retirement benefit system's board of trustees should be neither so large as to be unwieldy nor so small that it runs the risk of not being able to get a quorum to make decisions. Optimal board size is between seven and 13 members, depending on the size and complexity of the system.
   b) Board Composition – Any board that operates effectively includes members who have a mix of skills, competencies, and behaviors, including leadership, teamwork, communication, planning and organizational abilities, and knowledge of sound decision-making principles. A successful board actively pursues and makes use of these skills and behaviors. Board composition should reflect the varied interests of those responsible for funding the plan and should include plan participants and retirees, citizens of the governmental unit, and officers of the plan sponsor, as well as independent directors. This assures balanced deliberations and decision making.
   c) Board Education – New trustees must receive orientation training explaining their responsibilities and fiduciary duties as well as the duties of the system's staff and agents (e.g., actuaries, attorneys, advisors, and fund managers). A program of continuing education must be developed, and participation should be strongly encouraged or required.

3) Governance Policies:

   a) Code of Ethics – Every governing board should adopt a code of ethics to provide standards of conduct for board members and plan staff. The code of ethics should, at a minimum, address:
      i) Loyalty. Public fund fiduciaries must make all decisions in the best interest of system participants, placing those interests above all other interests.
      ii) Decision making. Decisions must be made in a fair, honest, and open manner, with information shared among fellow fiduciaries and all interested parties to enhance the quality of the system's decision-making process. Policies should discourage fiduciaries who are plan participants from voting on matters that advance their personal financial interests, and should provide a mechanism for independent trustees to vote separately on such matters if a conflict of interest affects multiple members.
      iii) Personal Conduct. Every public system's fiduciaries, including those who are under contract to provide services to the system, must take all reasonable steps necessary to ensure a full and accurate understanding of the trust, conflicts of interest, financial disclosures, and other ethics-related laws that apply to the system. They must conduct their official and personal affairs to ensure that they cannot be improperly influenced in the performance of their duties.

      iv) Relationships with Others. To foster trust and limit practices that create the appearance of conflicts of interest, plan sponsors should consider including restrictions in their code of ethics on the following behaviors:
         (1) Former employees and trustees soliciting business from the plan for a specified period of time.
         (2) An employee or trustee accepting contributions or material gifts from current or potential business partners, their agents, or their representatives.
         (3) Payment of finder or incentive fees to third-party marketers or other consultants for new or increased business, without full and advance disclosure and other controls where appropriate.
         (4) Any action that would bring into question the independence of the board or staff or the propriety of the system's decision making.

   b) Succession Planning – To ensure continuity of governance, there must be a policy for transition of leadership.

c) Investment Policy – The board must develop a comprehensive set of policies and procedures for investing and safeguarding plan assets. (See GFOA Best Practice, *Public Employee Retirement System Investments*, 2009.)

d) Professional and Contractual Services – The board must have policies and procedures for selecting agents such as actuaries, attorneys, auditors, advisors, and fund managers. These policies and procedures must encourage an open process free of actual or perceived bias and conflicts of interest.

e) Procedures for Monitoring Policies – Policies and procedures must be implemented to allow the board of trustees to monitor whether the board policies are being fulfilled, and whether the roles and responsibilities delegated to the various agents regarding the day-to-day management of the post-employment benefit system are being carried out effectively and to the board's satisfaction.

References.

- An Elected Official's Guide to Public Retirement Plans, GFOA, 1997.
- An Elected Official's Guide to Defined Benefit and Defined Contribution Retirement Plans, GFOA, 1999.
- National Association of State Retirement Administrators (NASRA) Resolution 1999-06 - Code of Ethics.
- Statements of Key Investment Risks and Common Practices to Address Those Risks, Association of Public Pension Fund Auditors, 2000.
- Operational Risks of Defined Benefit and Related Plans and Controls to Mitigate those Risks, Association of Public Pension Fund Auditors, 2003.
- International City County Management Association Code of Ethics, 2004.
- GFOA Best Practice, Ensuring the Sustainability of Other Postemployment Benefits, 2007
- GFOA Best Practice, Essential Design Elements of Defined Benefit Pension Plans, 2008.
- GFOA Best Practice, Public Employee Retirement System Investments, 2009.
- Governance Manual, Public Employees' Retirement Association of Colorado.
- *Best Practices for Trustees and Pension Systems*, American Federation of State County and Municipal Employees (AFSCME), available at www.afscme.org/issues/27459.cfm.

Approved by the GFOA's Executive Board, March 5, 2010.

OECD GUIDELINES FOR PENSION FUND GOVERNANCE

These Guidelines were approved by the Working Party on Private Pensions on 5 June 2009.

OECD GUIDELINES FOR PENSION FUND GOVERNANCE[1]

I. GOVERNANCE STRUCTURE

1. Identification of responsibilities

There should be a clear identification and separation of operational and oversight responsibilities in the governance of a pension fund. To the extent that a pension entity is established that owns the pension fund on behalf of plan/fund members and beneficiaries, the legal form of this entity, its internal governance structure, and its main objectives should be clearly stated in the pension entity's statutes, by-laws, contract or trust instrument, or in documents associated with any of these. If the pension fund is established as a separate account managed by financial institutions, the pension plan or contract between plan sponsors/members and beneficiaries and the financial institution should clearly state the responsibilities of the latter with respect to the management of the pension fund. As good pension fund governance should be 'risk-based', the division of responsibilities should reflect the nature and extent of the risks posed by the fund.

2. Governing body

Every pension fund should have a governing body[2] vested with the power to administer the pension fund and who is ultimately responsible for ensuring the adherence to the terms of the arrangement and the protection of the best interest of plan members and beneficiaries. The responsibilities of the governing body should be consistent with the overriding objective of a pension fund which is to serve as a secure source of retirement income. The governing body should retain ultimate responsibility for the pension fund, even when delegating certain functions to external service providers. For instance, the governing body should retain the responsibility for monitoring and oversight of such external service providers. Appropriate oversight mechanisms should also be established where the governing body is a commercial institution.

3. Accountability

The governing body should be accountable to the pension plan members and beneficiaries, its supervisory board (where relevant) and the competent authorities. Accountability to plan members and beneficiaries can be promoted via the appointment of members of the governing body by pension plan members and beneficiaries or their representative organisations. The governing body may also be accountable to the plan sponsor to an extent commensurate with its responsibility as benefit provider. In order to guarantee the accountability of the governing body, it should be legally liable for its actions which fail to be consistent with the obligations imposed on it, including prudence. In defined contribution plans, accountability calls for safe harbour rules that clarify the responsibilities and liabilities of the governing body.

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[1] In EU countries, these Guidelines may not apply to those occupational, private pension plans, funds and entities that fall outside the scope of the Directive 2003/41/EC of the European Parliament and of the Council of 3 June2003 on the Activities and Supervision of Institutions for Occupational Retirement Provision (e.g. pension plans financed as book reserves).

[2] In a two-tier board system, involving a managing board and a supervisory board, the body which is responsible for all strategic decisions (usually the managing board) is considered the governing body.

4. Suitability

Membership in the governing body should be subject to minimum suitability (or non-suitability) standards in order to ensure a high level of integrity, competence, experience and professionalism in the governance of the pension fund. The governing body should collectively have the necessary skills and knowledge to oversee all the functions performed by a pension fund, and to monitor those delegates and advisors to who such functions have been delegated. It should also seek to enhance its knowledge, where relevant, via appropriate training. Any criteria that may disqualify an individual from appointment to the governing body should be clearly laid out in the regulation.

5. Delegation and expert advice

The governing body may rely on the support of sub-committees and may delegate functions to internal staff of the pension entity or external service providers. Where it lacks sufficient expertise to make fully informed decisions and fulfil its responsibilities the governing body could be required by the regulator to seek expert advice or appoint professionals to carry out certain functions. The governing body should assess the advice received, including its quality and independence, and should verify that all its professional staff and external service providers have adequate qualifications and experience.

6. Auditor

An auditor, independent of the pension entity, the governing body, and the plan sponsor, should be appointed by the appropriate body or authority to carry out a periodic audit consistent with the needs of the arrangement. Depending on the general supervisory framework, the auditor should report promptly to the governing body and - if the governing body does not take any appropriate remedial action - to the competent authorities and other appropriate persons wherever he or she becomes aware, while carrying out his or her tasks, of certain facts which may have a significant negative effect on the financial situation or the administrative and accounting organisation of a pension fund.

7. Actuary

An actuary should be appointed by the appropriate body or authority for all defined benefit plans financed via pension funds. As soon as the actuary realises, on performing his or her professional or legal duties, that the fund does not or is unlikely to comply with the appropriate statutory requirements and depending on the general supervisory framework, he or she shall inform the governing body and - if the governing body does not take any appropriate remedial action - the supervisory authority and other appropriate persons without delay.

8. Custodian

Custody of the pension fund assets may be carried out by the pension entity, the financial institution that manages the pension fund, or by an independent custodian. If an independent custodian is appointed by the governing body to hold the pension fund assets and to ensure their safekeeping, the pension fund assets should be legally separated from those of the custodian. The custodian should not be able to absolve itself of its responsibility by entrusting to a third party all or some of the assets in its safekeeping.

II. GOVERNANCE MECHANISMS

9. Risk-based internal controls

There should be adequate internal controls in place to ensure that all persons and entities with operational and oversight responsibilities act in accordance with the objectives set out in the pension entity's by-laws, statutes, contract, or trust instrument, or in documents associated with any of these, and that they comply with the law. Such controls should cover all basic organisational and administrative procedures; depending upon the scale and complexity of the plan, these controls will include performance assessment, compensation mechanisms, information systems and processes, risk management procedures and compliance. The governing body should also develop a code of conduct and a conflicts of interest policy for them and the staff of the pension entity as well as for any party with operational responsibilities. There should also be appropriate controls to promote the independence and impartiality of the decisions taken by the governing body, to ensure the confidentiality of sensitive information pertaining to the fund and to prevent the improper use of privileged or confidential information.

10. Reporting

Reporting channels between all the persons and entities involved in the governance of the pension fund should be established in order to ensure the effective and timely transmission of relevant and accurate information.

11. Disclosure

The governing body should disclose relevant information to all parties involved (notably pension plan members and beneficiaries, plan sponsors, supervisory authorities, auditors etc.) in a clear, accurate, and timely fashion.

ANNOTATIONS TO
GUIDELINES FOR PENSION FUND GOVERNANCE

I. GOVERNANCE STRUCTURE

1. Identification of responsibilities

Good governance calls for a clear identification and separation of the operational and oversight responsibilities of a pension fund. To the extent that a pension entity is established that owns the pension fund on behalf of plan/fund members and beneficiaries, the assignment of these responsibilities needs to be clearly stated in the pension entity's statutes, by-laws, contract, or trust instrument, or in documents associated with any of these. These documents also need to state the legal form of the pension entity, its internal governance structure, and its main objectives. If the pension fund is established as a separate account managed by financial institutions, the pension plan or contract between plan sponsors/members and beneficiaries and the financial institution should clearly state the responsibilities of the latter with respect to the management of the pension fund. In addition, there need to be a mechanism for ensuring appropriate independent oversight of the decisions taken by these third parties.

Pension entities are established in accordance to statutes, by-laws, contract (including collective agreements with trade unions), or trust instrument. These documents, sometimes together with associated material, should define the legal form of the pension entity as well as its internal governance structure and main objectives. The main objectives of the pension entity will vary depending on the type of plan that they support. In defined contribution plans, the main objective of the pension entity may be to invest the pension assets in order to maximise risk-adjusted returns, taking into consideration any costs borne by members. In defined benefit plans, the pension entity may have several objectives, such as ensuring an adequate match between the pension plan assets and its liabilities and paying benefits upon the death or retirement of plan members and beneficiaries.

Some of the operational functions of the pension entity that should be identified and assigned include collection of contributions, record-keeping, actuarial analysis, funding and contribution policy, asset-liability management (or equivalent concepts in defined contribution plans), investment strategies, asset management, disclosure to plan members and beneficiaries, regulatory compliance and, where appropriate, financial education. These responsibilities and their assignment should be clearly stated in the pension entity's documents, and where outsourced, monitored via service level agreements.

As good pension fund governance should be ‘risk-based’, the division of responsibilities should reflect the nature and extent of the risks posed by the fund. For example, where funds adopt a sophisticated investment strategy, an investment sub-committee may be appropriate.

The role of the plan sponsor and the rights of the plan/fund members and beneficiaries with respect to the governance of the fund should be also clearly documented. Appointment of the governing body should be ruled by the pension entity’s statutes and/or legal provisions. The plan sponsor may appoint some of the members of the governing body. Pension plan/ fund members and beneficiaries or their representative organisations may also play a role in appointing members of the governing body of the pension fund. If the plan is established as part of a collective agreement, the contracting trade union(s) have responsibility for the appointment of the governing body on behalf of plan/fund members and beneficiaries. Where the pension fund is established as an independent legal entity, some of the professional staff of this entity, such as actuaries and asset managers, may also be employees of or external advisors to the plan sponsor. However, in general, it should be the governing body's responsibility to appoint the professional staff and the external service providers of the pension entity.

When the pension fund is established as a separate account managed by financial institutions, their responsibilities should be clearly stated in the plan or contract documents. In occupational plans, plan sponsors should sign a contract with the financial institutions responsible for the management of the pension fund, where the objectives of the fund are also clearly stated. In personal plans, the contract is signed directly between the plan member and the financial institution.

2. Governing body

Pension funds are controlled by a governing body that is responsible for the operation and oversight of the pension fund. The governing body may also be responsible for other (or indeed all) aspects of the administration of a pension plan. This governing body may be a person, a committee or committees of persons (e.g. a board of trustees) or a legal entity. In a two-tier board system the managing board or body which is responsible for all strategic decisions is considered the governing body. In some countries various entities have fiduciary duties and may therefore be considered on a par with the governing body. In general, it is appropriate to split operational and oversight responsibilities, with the governing body focusing solely on strategic decisions and oversight functions. Operational tasks should be delegated to the pension entity’s executive staff or a sub-committee and, where appropriate, external service providers.

A separate supervisory board or oversight committee may be established whose main functions are the selection and oversight of the body in charge of strategic decisions. The supervisory board may have other responsibilities, and may, for example, appoint the auditor or actuary of the pension fund and control potential conflicts of interest. The supervisory board may form part of the internal governance structure of the pension entity (as in a two-tier board system) or it may be established externally. Its members may be elected by the plan sponsor and plan/fund members and beneficiaries. In pension funds established in the corporate form, the general meeting of plan/fund members and beneficiaries also exerts some oversight functions. On-going, independent oversight by such a supervisory board is especially advisable where the governing body is also a commercial institution.

Though the governing body may delegate operational duties to the pension entity's internal staff or external service providers, it remains ultimately responsible for ensuring that pension funds fulfil their overriding objective which is to serve as the sources of funds for retirement benefits. In particular, the governing body should retain the responsibility for monitoring and oversight of those service providers, preferably via service level agreements. Core functions, such as formulating the investment policy and risk monitoring should also normally rest with the governing body taking advice from subcommittees, though external advice may of course be requested.

The governing body's main strategic and oversight responsibilities should include at least:

- setting out the pension fund’s key goals or mission, identify the main risks, and lay out the main policies, such as the investment policy – including the strategic asset allocation -, the funding policy, and the risk management policy;

- monitoring the administration of the pension fund in order to ensure that the objectives set out in the fund by-laws, statutes, contract or trust instrument, or in documents associated with any of these, are attained (e.g. timely payment of pension benefits promised or targeted, adequate management of risks, including a diversified asset allocation, cost-effectiveness of administration, paying proper plan expenses from the fund, etc);

- selecting, compensating, monitoring, and, where necessary replacing internal executive staff as well as external service providers (e.g. asset managers, actuaries, custodians, auditors, etc); in a two-tier board system the appointment of external service providers (e.g. actuaries, auditors) may be the responsibility of the supervisory board;

- ensuring the compliance of the activities of the entity with the pensions law and other applicable statutes (e.g. investment regulations, reporting and disclosure requirements, control of conflicts of interest situations, improper use of privileged information, etc);

With DC pension funds, additional key tasks of the governing body include ensuring that: (i) suitable investment choices are offered to members (including a suitable default fund), (ii) the performance of these funds is monitored, (iii) costs charged to members are optimised and disclosed in their disaggregated form, and (iv) members are offered guidance and where relevant projections on expected benefits. To enable the governing body to undertake its role effectively, safe-harbour rules may be appropriate.

While the governing body should best serve the interest of the pension plan members and beneficiaries, it may also be required to avoid imposing an unnecessary financial burden on the plan sponsor (i.e. where the interest of plan members and beneficiaries could be equally best served through other means, which are more beneficial for plan sponsors). The expenses of administering the pension fund should be managed efficiently, and the governing body may be required to minimise the cost to employers where these expenses are borne exclusively by the plan sponsor.

3. Accountability

Accountability over governance functions is particularly important in order to allow the supervisory authority and the plan members and beneficiaries to discipline the governing body or seek other means of redress in case of mismanagement. The governing body may also be accountable to the plan sponsor to an extent commensurate with its responsibilities as a benefit provider.

In order to guarantee the accountability of the governing body, it should be liable for its actions which are in breach of its duties. Such liability may include in some instances personal financial responsibility. In such cases, insurance of this liability can strengthen the ability of the pension fund to recover losses in case of mismanagement.

In cases where the plan sponsor acts as the governing body or directs a third party provider in a DC plan, safe harbour rules may be appropriate to ensure that plan sponsors are accountable for their decisions but have a liability commensurate with the scope of those decisions. For instance, such rules can allow the plan sponsor to carry out due diligence in the choice and ongoing monitoring of service providers, investment alternatives and default options, whilst limiting his liabilities.

The accountability of the governing body also requires:

- regular meetings of the governing body;

- diffusion of decision-making power in the governing body (for example, a requirement for decisions to be taken on a majority basis);

- appropriate disclosure of the decisions reached in these meetings to affected plan members and beneficiaries;

- regular reporting of important and significant information about the operation of the pension fund to the supervisory board, where relevant;

- reporting of information about the operation of the pension fund to the supervisory authorities;

- transparent selection mechanisms for the members of the governing body (including the possibility of appointments of representatives of plan members and beneficiaries through a fair selection system);

- appropriate succession planning processes.

Disclosure to plan members and beneficiaries may be required for plan changes that could have a material impact on future pension benefits, such as a material change in the plan terms or their application. In order to reduce the administrative burden on the governing body, disclosure could be made on a regular basis, for example, once a year, rather than after every meeting of the governing body.

The selection and succession planning structure should deal with the term, appointment/election and removal of members of the governing body of the pension fund. The term of appointment of the members of the governing body may vary depending on the type and context of particular plans.

Accountability to plan members and beneficiaries can be also enhanced by requiring representation of plan members and beneficiaries on the governing body. When the pension plan is established as part of a collective agreement, the nomination process normally involves the contracting trade unions. In some countries, paritarian representation of employers and employees in the governing body is required by law, ensuring that their respective points of view are represented. In other countries, labour laws governing union-management relations may prescribe when employee representation on pension funds is necessary. The appointment of independent professionals to the governing body is also an effective way to promote good governance.

Election through a fair voting system (e.g. majority voting) is recommended in cases where plan members and beneficiaries can elect some of the members of the governing body. Biographical information on the member of the governing body seeking election should be provided to those involved in the selection process. The information should be provided in a timely manner and should be sufficient including age, length of time he/she has been associated with the pension fund, qualifications and experience. Having said this, existing associations of employees (e.g. trade unions) already have internal electoral systems in place which may make these additional elections redundant.

4. Suitability

Members of the governing body should be subject to minimum suitability standards, such as “fit and proper” criteria. Causes of automatic disqualification could include conviction for fraud, theft or other criminal offences, and gross mismanagement of a pension or other fund that led to significant civil penalties, and, in some cases, personal bankruptcy.

Each member of the governing body should also contribute to a balanced set of skills that enables the board, acting as a collective body, to execute successfully its obligations. For this purpose, the governing body may establish a template of the skills set needed and identify any gaps. The qualifications and experience required of the members of the governing body will depend on their responsibilities. It is advisable for at least some members to possess appropriate professional qualifications and experience to assist in some key decisions such the design of the investment strategy. In general, it is desirable that all members of the governing body have sufficient knowledge and experience to be able to understand the decisions of the professionals that operate the fund. Where the governing structure includes a general assembly of the plan members and beneficiaries (as is sometimes the case in pension funds set up in the corporate form), these would evidently not be subject to fit and proper criteria.

The governing body should regularly review its collective skill set and consider whether it is adequate. Where relevant, it should seek to enhance its collective knowledge of pension fund matters via appropriate training, paid for by the pension entity. An annual skills inventory and training plan may be prepared for this purpose. In general, training is recommended both initially on appointment and on an on-going basis (at least every two years). Such training could be supported by pension fund regulatory or supervisory bodies (for example via free on-line courses, other material or approval of other education providers). Alternatively, the supervisory authorities may identify or approve suitable courses. More advanced training may be needed to ensure that the governing body fully understands investment in complex financial instruments.

5. Delegation and expert advice

Where it is appropriate to do so, the governing body should seek expert advice and may delegate functions to sub-committees of the pension entity, internal executive staff, or to external service providers. Some of the functions where the governing body may require external advice from consultants and other professional service providers include setting the investment and funding policies and asset-liability management. The governing body should have power and the ability to appoint, assess and remove such advisors. It should also take care not to rely exclusively on one source of information and ensure that the advice is independent / non-conflicted.

The governing body may also delegate operational duties, such as asset management, record keeping, and benefit payment, to internal executive staff and / or professional service providers. It may also utilise the resources of the plan sponsor, though this may not always have qualified staff to carry out specific functions, such as actuarial analysis.

The governing body should ensure that all its professional staff and, where appropriate, the external service providers have the relevant qualifications and experience required to carry out their functions in accordance with the objectives of the pension entity and the pension plan.

6. Auditor

The auditor is responsible for reviewing the financial accounts for the pension plans and/ or the pension fund with an appropriate periodicity. The extent and frequency of the audit will vary depending on the nature, complexity, and size of the pension plan/fund. The auditor may also be in charge of verifying the controls relating to risk management and conflicts of interest.

Auditors should also play also a "whistle-blowing" function. If, in the course of the exercise of their duties, they become aware of any significant threat to the financial position of a pension fund or its administrative and accounting organisation, they should promptly report to the governing body. If appropriate remedial action is not taken by the governing body, the auditor should report to the competent authorities and other appropriate persons. If appropriate remedial action is not taken, the auditor should also take this into account in the issuance of any audit opinion. The authorities or relevant professional bodies should issue guidance for auditors on the significance of actions of non-compliance with the pension fund statutes and/or current legislation. In some countries, some of the functions normally carried out by auditors may be carried out by other entities, such as the custodians.

The independence of the auditor from the pension entity, the governing body, and the plan sponsor is important to ensure the impartiality of the audit. Normally, the auditor should be appointed by the governing body of the pension entity and in a manner consistent with fiduciary duties. In a two-tier board system the supervisory body may appoint the auditor. In some instances, the supervisory authority may appoint the auditor directly.

7. Actuary

The governing body should appoint an actuary for all pension funds that support plans where the plan sponsor insures the plan member against investment or/and biometric risk. In a two-tier board system the supervisory body may appoint the actuary. Even in defined contribution plans, however, an actuary with a limited role may be advisable, since investments should be made taking into account the adequacy of all retirement income assets.

The actuary may not always be an employed member of the staff of the pension entity or the financial institution managing the fund. For example, the actuary may be employed directly by the employer or plan sponsor or he/she may be an external service provider (e.g. a professional actuary or a benefits consultant firm). Members of the governing body should not normally be appointed as pension plan/fund actuaries. Where the actuary is employed directly by the employer or plan sponsor, the possible conflict of interest should be properly managed.

The role of the actuary should include at least the evaluation of the fund's present and future pension liabilities in order to determine the financial solvency of the pension plan following recognised actuarial and accounting methods. The actuary should also identify the funding needs for the pension plan, and estimate the level of contributions taking account of the nature of the liabilities of the pension plan. The actuary should also play a "whistle-blowing" function, and report to the governing body immediately when he or she realises that the fund does not or is unlikely to comply with the appropriate statutory requirements (e.g. minimum funding requirement). If the governing body does not take appropriate remedial action (e.g. establish a recovery plan to eliminate a funding deficit), the actuary should report to the competent authorities and other appropriate persons. If appropriate remedial action is not taken, the actuary should also take this into account in the issuance of any actuarial report or opinion. The authorities or relevant professional bodies should issue guidance on the significance of actions of non-compliance with the pension fund statutes and/or current legislation.

8. Custodian

Where appropriate, it may be required that a custodian, different from the pension entity or the financial company that manages the pension fund, is appointed by the governing body of the pension fund. The appointment of an independent custodian is an effective way to safeguard the physical and legal integrity of the assets of a pension fund.

The custodian holds the pension fund assets and should be in a position to ensure their safekeeping. They may also provide additional services such as securities lending, cash management, investment accounting and reporting, and performance measurement. In some cases, the custodian may also play an external whistleblowing function similar to that of the auditor with respect to, for example, the investment of pension assets.

II. GOVERNANCE MECHANISMS

9. Risk-based internal controls

The scope and complexity of internal control measures should be ‘risk-based’ and will vary according to the type and size of pension plan, fund and entity and the type and extent of risks faced. However, there are certain basic organisational and administrative procedures that are central to risk management and control and sound business practice:

- Regular assessment of the performance of the persons and entities involved in the operation and oversight of the pension fund, particularly where the governing body is also a commercial institution;

- Regular review of compensation mechanisms, in order to ensure that they provide the correct incentives for those responsible for the operation and oversight of the pension fund;

- Regular review of information processes, operational software systems, and accounting and financial reporting systems;

- Identification, monitoring, and, where necessary, correction of conflicts of interest situations. A policy for dealing with conflicts of interest situations should be in place;

- Mechanisms to sanction the improper use of privileged information;

- Implementation of an adequate risk measurement and management system including effective internal audit

- Regular assessment of regulatory compliance systems

Mechanisms are needed to assess regularly the performance of the pension entity's internal staff as well as the external service providers (e.g. those providing consultancy, actuarial analysis, asset management, and other services for the pension entity). It is also good practice for the governing body to undertake self-analysis and for an independent, external person/organisations (or, where it exists, the supervisory board) to undertake a review of the internal controls of the pension entity and the performance of the governing body. The governing body could also restate annually that they are aware of the governance obligations and other key documents relating to the fund, that they are in compliance or have notified any potential conflicts.

Objective performance measures should be established for all the persons and entities involved in the administration of the pension fund. For example, appropriate benchmarks should be established for external asset managers. Performance should be regularly evaluated against the performance measures and results should be reported to the relevant decision maker, and, where appropriate, to the supervisory board, the supervisory authority, and the pension fund members and beneficiaries. The benchmarks should be reviewed regularly also to ensure their consistency with the pension fund objectives (e.g. the investment strategy).

Appropriate compensation can provide the right incentives for good performance. The establishment of a compensation committee and chairperson may optimise the process of evaluating the compensation of those responsible for the operation and oversight of the pension fund, such as asset managers, custodians, actuaries, as well as the members of the governing body.

The compensation policy of sales forces of pension plan providers may also warrant close scrutiny by the governing body, since these costs can reduce pension benefits significantly. There is a risk also that sales staff may not act in the best interest of plan members and beneficiaries, offering products that are not suitable for certain individuals. The governing body should therefore ensure that the remuneration structure for sales staff does not create distorted incentives or and lead to ill-advised decisions by consumers.

A conflict of interest policy should be in place and members of the governing body and staff should regularly report compliance with these rules. Conflicts of interest situations should be identified and dealt with in a suitable manner. Conflicts should be disclosed and recorded in the minutes of the board, as should the role of third parties in settling policy/ strategy for the fund, including trading policies, and the commission and other fees paid by the fund. In certain cases, banning the concentration of functions in a single person or entity that would otherwise lead to a conflict of interests may be the preferred solution. In other cases, disclosure of the conflict of interest to the governing body may suffice, who should be required to monitor these cases closely. It may be in the fund's best interest to adopt policies which prevent even the appearance of a conflict of interests. One effective way of doing so is for the conflicted individual to abstain from voting on any decisions related to the matter of the conflict.

Where the conflict involves a member of the governing body, the case should be reviewed and monitored by the members of it who are not conflicted. Where appropriate, the governing body may seek independent advice or guidance regarding the service or transaction. In the event of the governing body not being able to resolve a conflict of interest situation that may be judged by some of the members of the governing body as harmful to the interest of the plan members and beneficiaries, this should be reported to the supervisory board or supervisory authority, which will make a decision on whether they should be permitted, and if so under what conditions. In some cases, the supervisory authority may decide to appoint an independent professional to the governing body.

The governing body should also establish appropriate controls to promote the independence and impartiality of the decisions taken - ensuring an equal treatment of all plan members -, ensure the confidentiality of sensitive information pertaining to the fund and prevent the improper use of privileged or confidential information. Employees of the pension entity may also be required to notify to the governing body any breaches of legislation, by-laws or contracts in the operational tasks that they are responsible for. A code of conduct should be established to implement these goals, requiring employees to observe high standards of integrity, honesty, and fair dealing. Internal review mechanisms may be put in place to verify and sanction the compliance with the code of conduct.

An adequate risk measurement/management system and an effective internal audit should be also established. The risk management system should cover the main risks that a pension fund is exposed to, such as investment, biometric and operational risks. These control mechanisms form the basis of good business conduct, enhanced transparency, consistency as to management decisions, and for the protection of all stakeholders of the pension fund. Prudent risk management practices should also consider intangible risk factors such as environmental, political and regulatory changes, as well as the pension fund's potential market impact through its investment decisions. The risk management strategy should seek to proactively identify and explicitly balance short- and long-term, considerations.

Finally, pension entities should have mechanisms to assess the compliance with the law. A compliance officer may be assigned to carry out this activity on a regular basis. Compliance assessment should include documentation related to functions that have been delegated to external service providers.

10. Reporting

Processes need to be put in place to ensure that the members of the governing body receive appropriate, timely, accurate, complete, consistent, and easily comprehensible information so they may discharge their responsibilities effectively, in accordance with the code of conduct, and ensure that delegated responsibilities are fulfilled.

For its part, the governing body should ensure that actuaries, asset managers, consultants, custodians, and other professional service providers also receive relevant and accurate information in a timely manner in order to ensure they carry out their duties as assigned by the governing body.

11. Disclosure

The governing body should disclose relevant information to all parties involved (notably pension plan members and beneficiaries, the supervisory board- where relevant -, the plan sponsor, and supervisory authorities, etc.) in a clear, accurate, and timely fashion. The specific information that plan members and beneficiaries should receive is described in the OECD Guidelines for the Protection of the Rights of Members and Beneficiaries. In the case of pension funds that support personal pension arrangements, certain information (e.g. costs and investment returns) may also need to be disclosed to the public at large via appropriate mechanisms (e.g. websites and printed media). The governing body may also be required to disclose publicly if, and if so how, environmental, social, and governance considerations are taken into account in the investment policy. Two useful references in this regard are the OECD Guidelines for Multinational Enterprises and the OECD Principles of Corporate Governance.