Summary of Actuarial Assumptions (continued)

F. Assumption Changes Since the last valuation the following changes have been made:

- The actuarial cost method changed from using the Projected Unit Credit cost method to the Entry Age Normal level percent of pay cost method in anticipation of the FY2018 GASB 75 report.
- The discount rate was changed from 5.35% to 5.75% based on updated capital market assumptions regarding the employer's general fund investments and revocable trust assets.
- Healthcare trend rates were reset to reflect updated cost increase expectations. See pages 22, 23 and 36 for more details.
- Medical per capita claims costs were updated to reflect recent experience.
- Withdrawal, retirement and mortality rates were updated from the rates used in the 7/1/2014 PERA General Employees Retirement Plan valuation to the rates used in the 7/1/2016 valuation.
- A salary scale assumption was added to reflect the cost method change. Rates are from the 7/1/2016 PERA General Employees Retirement Plan valuation, 7/1/2016 PERA Public Employees Police & Fire Plan valuation and the 7/1/2016 PERA Local Government Correctional Service Retirement Plan valuation.
- The percent of future retirees not eligible for a direct subsidy assumed to elect coverage at retirement changed from 50% to 25% to reflect recent plan experience.
- The percent of future Medicare eligible retirees electing each medical plan changed from 98%/2% electing HealthPartners Freedom and HealthPartners National/Blue Cross Platinum Blue Plan B w/Rx to 95%/5% electing HealthPartners Freedom and HealthPartners National/Blue Cross Platinum Blue Plan B w/Rx. This change was made to reflect recent plan experience.
- The percent of retirees hired before 7/1/1992 assumed to cover a spouse at retirement has changed from 35% to 50%. This change was made to reflect recent plan experience.
- The percent of retirees hired between 7/1/1992 and 1/1/2006 who are eligible for a direct subsidy assumed to cover a spouse at retirement has changed from 30% to 35%. This change was made to reflect recent plan experience.
- Assumed sick leave accruals were changed from 38 hours of sick leave per year to 41 hours per year to reflect current average accruals of benefiting group.

Selection of Economic Assumptions

The Actuarial Standards Board (ASB) provides coordinated guidance for measuring pension and retiree group benefit obligations through a series of Actuarial Standards of Practice (ASOPs). ASOP No. 27, Selection of Economic Assumptions for Measuring Pension Obligations, requires that the actuary disclose the rationale used in selecting each non-prescribed economic assumption and any changes to non-prescribed economic assumptions.[1]

The table below summarizes the rationale for selecting the non-prescribed economic assumptions. The rationale for assumption changes, along with a description of the assumptions themselves, is included in the Actuarial Assumption and Methods section of the report.

Economic Assumptions (non-prescribed)	
Assumption	**Rationale for Selecting Assumption**
Discount rate	Based on a blend of the long-term expected return on (1) plan assets to the extent they are projected to be sufficient to pay plan benefits, and (2) employer general assets to the extent that projected plan assets are insufficient to pay plan benefits.
Expected return on assets	The expected trust asset return (if any) is based on a blend of the trust's expected asset class returns and target asset allocation. The expected employer asset return is based on the long-term expected return on short-term/cash-equivalent assets using our capital market assumption model.
Inflation rate	Based on analysis of historical CPI-U inflation rates and the estimated forward-looking inflation rate implied by 30-Year Treasury rates vs. 30-Year TIPS rates.
Annual salary increases	Based on the most recently disclosed assumption for the pension plan in which the employee participates.

1 ASOP No.6, Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions, specifies that actuaries should comply with ASOP 27 when selecting economic assumptions not covered by ASOP 6.

Selection of Non-Economic Assumptions

The Actuarial Standards Board (ASB) provides coordinated guidance for measuring pension and retiree group benefit obligations through a series of Actuarial Standards of Practice (ASOPs). ASOP No. 35, Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations, requires that the actuary disclose the rationale used in selecting each non-prescribed non-economic assumption and any changes to non-prescribed non-economic assumptions.[1]

The table below summarizes the rationale for selecting the non-prescribed non-economic assumptions. The rationale for assumption changes, along with a description of the assumptions themselves, is included in the Actuarial Assumption and Methods section of the report.

Non-Economic Assumptions (non-prescribed)	
Assumption	Rationale for Selecting Assumption
Healthcare trend rates	Developed using the Society of Actuaries "Getzen" model, with short-term rates set annually based on review of recent healthcare trend surveys and relevant client-specific experience. Additional details can be found in the Healthcare Assumptions and Methods section.
Plan participation, plan election and spouse coverage	Based on review of the County's historical experience and current participant elections.
Withdrawal, retirement and mortality	Based on the current actuarial assumptions for the pension plan in which the current or future retiree participates.
Disability incidence and disabled mortality	Not applicable for retirees who do not receive a disability retirement benefit or OPEB plans that do not provide disability benefits. Otherwise, based on the current actuarial assumptions for the pension plan in which the current or future retiree participates.
Spouse ages	Based on a standard age difference assumption from general industry experience, unless substantial plan-specific data is available.
Medicare eligibility	Based on review of current retiree data. Otherwise, we assume all post-65 retirees are Medicare eligible since there are generally very few retirees not eligible for Medicare.
Per capita claims costs	Developed using claims, premiums, fees and enrollment information provided by the County. Aging factors are based on sample rates described in "Aging Curves for Health Care Costs in Retirement" published in 2005 North American Actuarial Journal. Additional details can be found in the Per Capital Claims Cost section of the Summary of Healthcare Assumptions and Methods.

1 ASOP No.6, Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions, specifies that actuaries should comply with ASOP 35 when selecting economic assumptions not covered by ASOP 6.

Important Notices

Purpose and Scope of the Valuation

This valuation has been prepared exclusively for the County and solely to provide GASB 45 accounting information. It is important to recognize that calculations performed for other purposes (such as benefit design, investment policy, or plan funding) may yield significantly different results.

A valuation report is only a snapshot of a plan's estimated financial condition at a single point in time. A plan's total cost will depend on many factors and variables that are uncertain and unknowable at the current valuation date.

Actuarial valuations are extremely complex and it's possible that data, computer coding, and mathematical errors could occur during the valuation process. Errors in a valuation discovered after its preparation may be corrected by revising the current valuation or in a subsequent year's valuation.

Assumptions and Methods

Since modeling all possible future outcomes is not possible or practical, the valuation is based on a single set of data, assumptions, methods, and plan provisions which satisfy current GASB 45 accounting requirements. We may also use estimates or simplifications to model future events in an efficient and cost-effective manner, so long as we believe that these simplifying techniques do not affect the reasonableness of the valuation results.

The County is responsible for the assumptions, methods, and funding policies used to prepare the valuation. The assumptions used in this report are among a wide range of possibilities (each of which may be considered reasonable), but have been chosen as a single "best estimate". If the County is interested in analyzing the effect of different assumption sets on the valuation results, then we suggest a sensitivity analysis to be performed at a later date.

To the extent that actual plan experience differs from the valuation assumptions, actuarial gains and losses will occur and be amortized over future periods. A summary of the actuarial assumptions and methods used in this valuation are summarized in the Actuarial Basis section of the report.

Impact of Amortization Method

GASB 45 accounting rules require selection of a method for amortizing the unfunded actuarial accrued liability (UAAL) when calculating the ARC and Annual OPEB Cost. For the current valuation, the County has elected to amortize the UAAL as a level dollar amount over a 30-year open period (i.e. the entire UAAL is re-amortized over a new 30-year period each year). Amortization over an open period means that, absent actuarial gains, the current UAAL may never be fully recognized.

Important Notices (continued)

Accuracy of Substantive Plan Information and Census Data

For purposes of this valuation, we have assumed that the County has validated our summary of the substantive plan provisions and has provided us with any relevant information regarding interpretation of the plan provisions and changes to the plan terms since the prior valuation.

The County is solely responsible for the validity, accuracy and comprehensiveness of this information. If any data or plan provisions supplied are not accurate and complete, the valuation results may differ significantly. Moreover, different interpretations of the substantive plan may produce substantially different valuation results.

Funding Considerations

The County is solely responsible for selecting funding and investment policies. Actuarial valuations do not affect the ultimate cost of a plan, only the timing of contributions and Annual OPEB Cost. If contributions over time are lower or higher than necessary, then future contribution levels can be adjusted to fund the plan at the desired level.

This report has not been prepared to develop a funding policy for the County's OPEB plan. For example, the Annual Required Contribution (ARC) calculated under GASB rules is an accounting term and may or may not be the appropriate level of funding for the plan. If the County would like to analyze different funding policies, then we suggest a separate funding policy study to be completed at a later date.

Accounting Requirements and Valuation Considerations

This section summarizes the applicable accounting requirements for the plan and describes important considerations and methods used to complete the valuation.

Accounting Information under GASB 43 and GASB 45

The Governmental Accounting Standards Board (GASB) finalized Statements No. 43 (GASB 43 for funded OPEB plans) and 45 (GASB 45 for employers) in 2004. The statements' objectives are to establish uniform standards of financial reporting by state and local governmental entities for postemployment benefit plans other than pension benefits (OPEB plans). This includes benefits such as postemployment medical, dental, vision and life insurance benefits.

For OPEB plans sponsored by governmental entities, these GASB Statements require certain standards and disclosures of plan and fund information including financial reporting of plan assets, liabilities of plan, changes in net assets, funded status and funding progress of the plan, and contributions to the plan in comparison to the annual required contributions of the employer (ARC).

Valuing Postretirement Health Benefits

Determining the value of future healthcare benefits is challenged by the fact that assumptions must be made about many future events that are especially hard to predict. Future increases in healthcare costs are affected by many factors, including:

- OPEB inflation
- Utilization
- Technological advances
- Cost shifting between private and public healthcare plans
- Cost leveraging (i.e., erosion of fixed deductibles and out-of-pocket maximums)

OPEB obligations are also heavily influenced by demographic assumptions such as:

- Withdrawal rates (i.e., employees terminating before receiving benefits)
- Retirement rates (i.e., employees retiring at various ages and subsidy levels)
- Mortality rates (i.e., how long employees and spouses will receive benefits)
- Election rates (i.e., retirees electing to participate, electing which plan, and electing spouse coverage or not)

The Summary of Actuarial Assumptions and Methods section outlines the assumptions used in this valuation.

Accounting Requirements and Valuation Considerations (continued)

Estimating Healthcare Costs and Implicit Subsidy

Estimating future healthcare costs involves calculating a starting claims plus administrative cost on a per-covered-individual basis, as well as developing an assumption regarding future increases in healthcare costs.

For insured plans, the premiums represent a blended average cost of both active and retired individuals. Since older, pre-65 retirees generally incur higher claims than younger active employees, GASB requires employers to value retiree liability based on retirees' estimated true costs rather than anticipated premium costs. Age-adjusted claims are developed and used to value the OPEB liability.

Impact of Legislative Changes

The legislative and regulatory environments have many implications for OPEB plans. Changes to current rules and implementation of new legislation are difficult to predict but could have a dramatic impact on the value of future plan benefits. These include:

- Changes to government medical programs, such as Medicare, when applicable. Under the Medicare Modernization Act of 2003 (MMA), the Part D prescription drug program was established. GASB requirements state that the determination of the actuarial accrued liabilities, the annual required contribution, and the annual OPEB cost should be done without reduction for Medicare Part D payments.

- Effect of the Patient Protection and Affordable Care Act. Many of the Act's provisions are in the process of being implemented, while others (such as the Cadillac Tax on certain high-cost medical plans) are still on the horizon. As guidance is released we will reflect any potential impact to your plan. This report does not contain an explicit liability for the Cadillac Tax because it is unclear at this time exactly how those taxes would impact your plan costs.

Glossary of Selected Terms

This section provides the definitions of applicable terminology in the actuarial valuation, with references to both the Governmental Accounting Standards Nos. 43 (GASB 43) and 45 (GASB 45).

Actuarial Cost Method - a procedure for determining the actuarial present value of benefits and for developing an allocation of such value to time periods.

Actuarial Present Value of Benefits - the value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a set of actuarial assumptions.

Actuarial Accrued Liability (AAL) - the portion of the actuarial present value which is not provided for by future normal costs, determined under the actuarial cost method.

Annual OPEB Cost - the OPEB expense recognized in the employer's financial statements.

Annual Required Contribution (ARC) - the basis for the annual OPEB cost shown in the employer's financial statements. This term is misleading: no annual cash contribution is actually required to fund OPEB.

Direct Subsidy - OPEB explicitly provided by employer.

Discount Rate - the interest rate used to adjust liabilities and obligations for the time value of money.

GASB Statement No. 43 & GASB Statement No. 74 - the Governmental Accounting Standards Statement Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans

GASB Statement No. 45 & GASB Statement No. 75 - the Governmental Accounting Standards Statement Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions

Implicit Subsidy or Implicit Rate Subsidy - the difference between the actual and apparent cost of OPEB coverage. The actual cost for early retirees is higher than the average per-person premium for the active/retiree group. Plans in which retirees pay the average active/retiree rate (the apparent cost) give rise to an implicit rate subsidy: the employer pays the difference between the actual and apparent cost.

Medicare - a U.S. government program of hospitalization insurance and voluntary medical insurance for persons aged 65 and over and for certain disabled persons under 65.

Medicare Part B - provides medical insurance coverage for services such as physician's services, outpatient services, and home health care. Participation under Part B is voluntary, and beneficiaries pay monthly premiums. Part B is also called Supplementary Medical Insurance.

Medicare Part D - also called the Medicare prescription drug benefit, is a federal program to subsidize the costs of prescription drugs for Medicare beneficiaries in the United States. It was enacted as part of the Medicare Modernization Act of 2003 (MMA) and went into effect on January 1, 2006.

Net OPEB Obligation (NOO) - the OPEB liability (asset) at transition, if any and the cumulative difference since the effective date of Statement No. 45 between annual OPEB cost and the employer's contributions.

Normal Cost - the portion of the actuarial present value which is allocated to the valuation year by the actuarial cost method.

Valuation Date - the date as of which assets and liabilities are measured for this OPEB valuation.