

City of Pittsburgh

**Retiree Health and Life Insurance Actuarial Valuation
as of June 30, 2004**

Prepared May 2004 by

Aon Consulting

City of Pittsburgh

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ACTUARIAL VALUATION CERTIFICATE

December 2003

This report presents the City of Pittsburgh Retiree Healthcare and Life Insurance Plan June 30, 2003 actuarial valuation results. The purposes of this report are to:

- (1) Estimate the plan's June 30, 2004 obligations;
- (2) Estimate the City of Pittsburgh's 2003/04 fiscal year accrual as if the proposed Governmental Accounting Standards Board (GASB) standard is adopted for this fiscal year based on the GASB exposure draft; and
- (3) Provide information that may be helpful in future planning for the Retiree Healthcare and Life Insurance Plan.

A summary of the major results is shown in Section I, while Section II provides more detailed results.

Section III summarizes proposed GASB OPEB accounting treatment including 2003/04 accrual and projected June 30, 2004 City of Pittsburgh reserves.

This report's costs and liabilities are based upon the data and plan provisions provided by the City of Pittsburgh (as summarized in Sections VI and VIII respectively) and the funding method and actuarial assumptions (outlined in Section IX). This Report presents our best estimate of the costs of the Retiree Healthcare and Life Insurance Plan in accordance with accepted actuarial principles and our understanding of the GASB exposure draft.

The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,
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SECTION I EXECUTIVE SUMMARY

The City of Pittsburgh provides healthcare and life insurance benefits to retirees and their spouses from the Police and Fire groups. The City of Pittsburgh pays 100% of the medical and life insurance premium for retirees and spouses (medical). All full time active Police and Fire employees who retire directly from the City of Pittsburgh and meet the eligibility criteria will participate.

The following table summarizes valuation results. These results have been calculated based upon assumptions as to current claim cost, projected increases in health care costs, mortality, turnover, and interest discount. In addition, in a number of cases, assumptions have been made about plan data, plan provisions, Medicare eligibility, and per capita claim costs.

This summary identifies the value of benefits at June 30, 2003 and costs for the 2003/04 fiscal year:

	<u><i>June 30, 2003</i></u>
■ Present Value of all Projected Benefits (PVPB)	\$298,000,000
■ Present Value of benefits earned to date (AAL)	235,000,000
■ 2003/04 Annual Required Contribution (ARC) ¹	29,000,000
■ 2003/04 Annual OPEB Cost	29,000,000
■ 2003/04 Expected Benefit Premiums	10,000,000

The balance of this report provides greater detail for the above results.

The valuation uses a discount rate of 7.00%. This rate is appropriate if the underlying assets used to pay benefits are invested in a diversified portfolio. By contrast, current long-term corporate bond yields are under 6.00%. If the program is not funded, a discount rate closer to 6.00% may be appropriate. See Section IX for more detail. Such a change would result in a significant increase in liability measurement.

¹ The ARC reflects a 20-year, level amortization of the unfunded AAL.

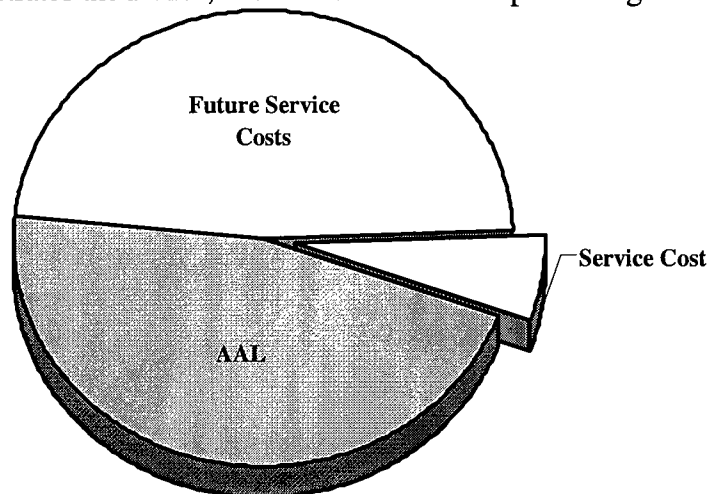
SECTION II PRINCIPAL VALUATION RESULTS

This section presents detailed valuation results for the City of Pittsburgh's retiree healthcare programs.

- The Present Value of all Projected Benefits (PVPB) is the total present value of all expected future benefits, based on certain actuarial assumptions. The PVPB is a measure of total liability or obligation. Essentially, the PVPB is the value (on the valuation date) of the benefits promised to current and future retirees. The Plan's PVPB (at June 30, 2003) is \$298,000,000. The majority of this liability (63%) is for current active employees (future retirees).
- The Actuarial Accrued Liability (AAL) is the liability or obligation for benefits earned through the valuation date, based on certain actuarial methods and assumptions. The Plan's AAL (at June 30, 2003) is \$235,000,000. The significant proportion of this obligation (47%) is for retired employees. The AAL represents approximately three-fourths (79%) of the PVPB.
- Service Cost is the value of benefits expected to be earned during the year, again based on certain actuarial methods and assumptions. The 2003/04 Service Cost is \$7,000,000.

This report develops the AAL and Service Cost using the Projected Unit Credit actuarial cost method.

The following graph illustrates the PVPB, with the shaded area representing the AAL:



The following highlights the City of Pittsburgh's recognition of the above amounts:

- The June 30, 2003 assets are \$0.²
- The 2003/04 ARC is \$29,000,000.
- Expected 2003/04 premium payments are \$10,000,000.

² No funds are currently set aside to pay post-retirement medical benefits. Under the proposed GASB standard, only funds set aside exclusively to pay plan benefits are considered plan assets.

SECTION II
PRINCIPAL VALUATION RESULTS

The following table shows results by active and retired employee groups.

	<u>Police</u>	<u>Fire</u>	<u>Total</u>
■ PVPB			
• Actives	\$90,000,000	\$98,000,000	\$188,000,000
• Retirees	<u>70,000,000</u>	<u>40,000,000</u>	<u>110,000,000</u>
• Total	\$160,000,000	\$138,000,000	\$298,000,000
■ AAL			
• Actives	\$50,000,000	\$75,000,000	\$125,000,000
• Retirees	<u>70,000,000</u>	<u>40,000,000</u>	<u>110,000,000</u>
• Total	\$120,000,000	\$115,000,000	\$235,000,000
■ Assets	\$0	\$0	\$0
■ Unfunded AAL	\$120,000,000	\$115,000,000	\$235,000,000
■ Service Cost	\$4,000,000	\$3,000,000	\$7,000,000

SECTION III
ACCOUNTING INFORMATION

The anticipated effective date for the new GASB OPEB accounting standard is fiscal year beginning July 1, 2007, with deferred effective dates if annual revenue is below \$100 million (see Exhibit IX). Adoption before this fiscal year is recommended but optional. The following shows the Annual Required Contribution (ARC), Annual OPEB Cost (AOC), and Projected June 30, 2004 OPEB Reserve, assuming the accounting standard is first adopted for fiscal year 2003/04.

Annual Required Contribution (ARC)

The proposed standard sets the method for determining the City of Pittsburgh's retiree healthcare and life accrual to include both the value of benefits earned during the year (Service Cost) and an amortization of the unfunded AAL. Accordingly, the following table shows the City of Pittsburgh's 2003/04 accrual based on a 20 year amortization of the unfunded AAL as a level dollar amount.

	<i>Fiscal Year Ending</i> <u>June 30, 2004</u>
■ Service Cost	\$7,000,000
■ AAL Amortization	<u>22,000,000</u>
■ Total Accrual	\$29,000,000

Annual OPEB Cost (AOC)

If there is no OPEB obligation on the City's financials at transition, then the Annual OPEB Cost (AOC) is equal to the ARC. However, if there is an initial obligation at transition, the AOC should reflect an adjustment for the transition obligation. Note that the GASB OPEB exposure draft in general, directs sponsors to set their initial OPEB obligation to zero at transition. However, this may result in awkward accounting results. We recommend you discuss this issue with your auditors if there is currently anything recorded.

■ ARC	\$ 29,000,000
■ Adjustment to ARC	<u>0</u>
■ Total AOC	\$ 29,000,000

SECTION III
ACCOUNTING INFORMATION

Summary AOC (After adoption a three-year display will be shown):

Fiscal Year <u>Ending</u>	<u>AOC</u>	<u>Percentage of Annual OPEB Cost Contributed *</u>	<u>Net OPEB Obligation</u>
6/30/2004	\$29,000,000	36%	\$19,000,000

- Based on expected premium payments.

Projected June 30, 2004 Retiree Healthcare Reserve

Based on the AOC developed above, the following is the projected June 30, 2004 Retiree Healthcare and Life Insurance Reserve (GASB will likely refer to this as “Other Post-Employment Benefit Obligation” or “OPEB”)

	<u>Total</u>
■ June 30, 2003 Net OPEB Obligation ³ (NOO)	\$ 0
■ Annual OPEB Cost (AOC)	29,000,000
■ Expected Premium Payments:	<u>(10,000,000)</u>
■ Expected June 30, 2004 Net OPEB Obligation ⁴ (NOO)	19,000,000

Required Supplementary Information

Below is the Projected Schedule of Funding Progress

Valuation <u>Date</u>	Actuarial Value of Assets <u>(a)</u>	Actuarial Accrued Liability (AAL) - PUC <u>(b)</u>	Unfunded AAL (UAAL) <u>(b-a)</u>	Funded Ratio <u>(a / b.)</u>	Covered Payroll <u>c</u>	UAAL as a Percentage of Covered Payroll <u>(b - a) / c</u>
6/30/2003	\$0	\$235,000,000	\$235,000,000	0%	\$91,000,000	259%

³ Assumes June 30, 2003 Net OPEB Obligation is set equal to Retiree Benefit Fund Balance.

⁴ Actual reserves would use actual 2003/04 benefit payments.

SECTION IV
PAYOUT PROJECTION

Annual Payments expected based on assumptions and premiums detailed in Section IX.

<u>Year Ending</u>	<u>Amount</u>
6/30/2004	\$10,000,000
6/30/2005	\$11,400,000
6/30/2006	\$13,000,000
6/30/2007	\$14,600,000
6/30/2008	\$16,200,000
6/30/2009	\$18,000,000
6/30/2010*	\$12,000,000
6/30/2011	\$13,400,000
6/30/2012	\$14,600,000
6/30/2013	\$15,800,000
6/30/2014	\$17,000,000

*Anomaly created by assumption of 44% of current retiree group being age 59 as of June 30, 2003

SECTION V AREAS FOR FURTHER STUDY

This report presents a preliminary study of information for the City of Pittsburgh Other Post Employment Benefits Plans. Results are based on currently available data, and plan designs. The report should be looked at as a broad overview of the value of the promise to provide medical and life insurance benefits to its Police and Firemen into retirement. The actual costs the City will experience with these programs (and the resulting measurement of the value of the programs) are sensitive to a number of factors. We would recommend the following areas for future study to give the City the best idea of the magnitude of future costs and how they can be managed:

- Repeat the initial study with more complete demographic and premium information (premiums in force, coverage levels, Medicare eligibility etc.). The use of assumptions may be overstating or understating plan costs.
- Develop data on how many retirees find other coverage and drop off the City plans.
- Review the sensitivity of the measurement of future costs and cash flows to key economic assumptions such as the discount rate, and the medical inflation (trend) rate.
- Determine the likely impact of the Medicare Part D benefit and how best to take advantage of this benefit.
- Determine the impact of plan design changes. These may include:
 - Caps on per capita costs,
 - Tightening of eligibility requirements,
 - Lifetime limits on benefits,
 - Changes in deductibles, or copays.
- Determine the cost/benefit trade-off for advance funding OPEB benefit promises and what level of prefunding provides the best results for the City.
- Determine the impact of greater cost sharing of premium costs between the City and
 - Future retirees,
 - Current retirees.

All of these options can have a significant effect on the future costs of the program as well as the City's ability to continue to pay for these costs.

SECTION VI
DEMOGRAPHIC INFORMATION

The following table summarizes retiree demographic information.

	<u>Police</u>	<u>Fire</u>	<u>TOTAL</u>
■ Counts			
➤ Active	902	816	1,718
➤ Retired*	<u>906</u>	<u>517</u>	<u>1,423</u>
➤ Total	1,808	1333	3,141
■ Average Age			
➤ Active	40.1	46.4	43.1
➤ Retired*	67.9	67.9	67.9
■ Average Service	11.8	17.4	14.5

* No data was provided for the retiree medical benefits. As a result, all amounts are based on estimates assuming approximately 44% of the retiree group is under the Medicare eligibility age with an age of 59. The remaining group is assumed to be age 75. More elaborate assumptions are possible but for this first rough estimate these assumptions should provide a good first look at the costs and benefits.

**SECTION VII
PLAN PROVISIONS**

Plan Various programs are available

Eligibility Employees employed under Police or Fire union contracts according to the following table:

Earlier of:
 Age 50 with 20 years of service

Retiree
Contribution None.

Years of spouse
benefit after
death of retiree Life.

Benefits Begin at
Age: Earliest Retirement Age. City is insurer of last resort.

Post-Retirement Life

Employees employed under Police and Fire contracts are eligible according to the following table:

Earlier of:
 ■ Age 50 with 20 years of service

Benefit Police: \$ 7,500 (retirees after 1/1/2003).
 Fire: \$15,000 (retirees after 1/1/2003).

SECTION VIII
METHODS AND ASSUMPTIONS

Actuarial Method

Projected Unit Credit Cost Method.

Service Cost

Determined for each active employee as the Actuarial Present Value of benefits allocated to the valuation year. The benefit attributed to the valuation year is that incremental portion of the total projected benefit earned during the year in accordance with the plan's benefit formula.

Accumulated Postretirement Benefit Obligation

The Actuarial Present Value of Benefits allocated to all periods prior to the valuation year.

Discount Rate	6/30/2003	7.00%.
Medical Trend	6/30/2003	12% grading down to 4.00% in year 2011 and thereafter.
Mortality	Males:	1994 Group Annuity Mortality Tables for Males.
	Females:	1994 Group Annuity Mortality Tables for Females.
Turnover	Rates applicable for five years of service are shown for sample ages below:	

<u>Age</u>	<u>Rate of Turnover</u>
25	0.8%
35	0.2%
45	0.3%
55	0.0%

Retirement Age

<u>Age</u>	<u>Rate of Turnover</u>
50	8.0%
51 to 57	3.0%
58 to 61	9.0%
61 to 64	18.0%
65	100.0%

**SECTION VIII
METHODS AND ASSUMPTIONS**

Age Difference Males assumed 4 years older than their spouses.

Initial Baseline Average cost based on premiums shown provided. Actual retiree data not
Costs (Monthly) available.

	<u>Pre Medicare</u>	<u>Post Medicare</u>
Retiree	\$885	\$303

General All retirees and spouses over age 65 are assumed to be eligible for Medicare
Assumptions benefits.

No account has been taken for potential costs savings from the Medicare Part D benefits that begin in 2006.

Retiree liabilities for the Health plan have been created based on broad assumptions about the group's age, and gender. Approximately 44% of the group has been assumed to be age 59 with the remainder assumed to be age 75. It has been assumed that the City is paying the full premium for existing retirees and new retirees. The total head count is based on records of enrollment provided by the City's insurance carriers.

Service levels are based on hire dates provided.

100% of future retirees assumed to participate in the plan from date of retirement until death. No current retirees not currently enrolled are assumed to enroll in the future. No currently enrolled retirees are assumed to find other coverage.

Valuation Methodology and Terminology

We have used proposed GASB accounting methodology to determine the postretirement medical benefit obligations.

SECTION IX GASB OPEB SUMMARY

The Government Accounting Standards Board (GASB) has issued an exposure draft for the recognition and disclosure for public entities sponsoring other (than pensions) post-retirement benefit plans. Deliberations on the draft are currently underway, with a final Standard currently scheduled in the near future.

The current draft can be used as a guide for the City when accounting for its retiree medical plan. This Exhibit summarizes pertinent issues from the above statements and includes comments about GASB's anticipated OPEB standard.

Why Pay-As-You-Go Accounting Will Be Unacceptable

The FASB believes, and GASB appears to agree, other post-retirement benefits, like pensions, are a form of deferred compensation. Accordingly, GASB is saying these benefits should be recognized (in an organization's financial statement) when earned by employees, rather than when paid out. Under SFAS 106, pay-as-you-go accounting is replaced with accrual accounting for these benefits. *This approach is similar to (although more restrictive than) GASB's approach under Statement No. 27.* GASB has indicated they will follow the Statement No. 27 approach in their new OPEB statement.

Allocating Costs (Attribution)

The FASB defines attribution as the process of assigning other post-retirement benefit cost to periods of employee service. SFAS 106 specifies how (the attribution method) and over what accounting periods (the attribution period) the postretirement benefits promise must be allocated.

The attribution (actuarial cost) method specified by SFAS 106 is the "projected unit credit actuarial cost method". This method attributes an equal amount of the total postretirement benefit to each year of service during the "attribution period".

The attribution period is the period over which the total postretirement benefit is earned. Unless the plan states that post-retirement benefits are not earned until a later date, the attribution period is from the employee's hire date until the employee is first eligible for the benefit. *The GASB draft does not restrict entities to a single attribution method, but instead allows sponsors (and actuaries) to choose from several acceptable methods (similar to GASB 27).* GASB will likely allow all six funding methods shown in the draft. GASB will probably also allow attribution to the expected retirement age rather than the earliest eligibility age.

Defining the Plan

SFAS 106 refers to the substantive plan as the basis for accounting. The substantive plan may differ from the written plan in that it reflects the employer's cost sharing policy based on past practice or communication of intended changes, or a past practice of cost increases in monetary benefits. Under SFAS 106, the substantive plan is the basis for allowing recognition of potential future changes to the plan. *GASB follows FASB's lead on this issue, requiring entities to recognize the underlying promise, not just the written plan.*

SECTION IX GASB OPEB SUMMARY

One deviation GASB considered from FASB relates to the implied subsidy when retirees participate in the active healthcare plan, but are charged a rate based on composite active and retiree experience. Under SFAS 106 the plan sponsor must recognize this implied subsidy. Under the expected GASB standard, even if an agency does not otherwise subsidize the benefit, then the agency will have to recognize an OPEB obligation for the implied subsidy. This is one of the prominent changes in the draft.

Actuarial Assumptions

SFAS 106 says actuarial assumptions should be explicit. This means each individual assumption should represent the actuary's best estimate. GASB also, generally, requires explicit assumptions.

In the initial exposure draft, GASB required the discount rate be based on the source of funds used to pay the benefits. This means the underlying expected long-term rate of return on plan assets for funded plans. However, since the source of funds for unfunded plans is usually the agency's general fund, and agencies are usually restricted by State law as to what investments they can have in their general fund, unfunded plans will need to use a relatively low discount rate.

Transition Issues

Because historical annual required contribution information will rarely be available, *GASB is taking a prospective approach on transition issues*. This means there will be no requirement for any initial transition obligation.

Effective Dates

The new standard will have staggered effective dates, similar to GASB Statement No. 34, as follows:

	Annual Revenue	Effective for Fiscal Years Beginning After
Phase I	≥ \$100 million	December 15, 2006
Phase II	≥ \$10 million but < \$100 million	December 15, 2007
Phase III	< \$10 million	December 15, 2008

