

BUFFALO SCHOOL DISTRICT ISD NO. 877

*July 1, 2008 Actuarial Valuation
Post-Employment Benefits
Under GASB Statement No. 45*

DRAFT

October 9, 2008

BUFFALO SCHOOL DISTRICT ISD NO. 877

July 1, 2008 Actuarial Valuation Post-Employment Benefits

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July 1, 2008 Actuarial Valuation Post-Employment Benefits

Introduction and Actuarial Certification

The Buffalo School District ISD No. 877 (the District) has hired Van Iwaarden Associates to perform an actuarial valuation of the District's Other Post-Employment Benefits (OPEB's). The 'other' refers to post-employment benefits other than pensions. Accounting for these OPEBs is now required under Government Accounting Standards Board Statement No. 45 (GASB 45).

This valuation has been prepared to present information for financial reporting purposes. It is important to recognize that calculations performed for other purposes may yield significantly different results.

In conducting the valuation, we have used:

- the provisions of the substantive plans in effect as of July 1, 2008,
- personnel data as of July 1, 2008, and
- premium information as of July 1, 2008.

All premium and census data were provided by District personnel.

The premium information and census data was used with a review of reasonableness but without formal audit. The health care claims analysis was performed in conjunction with Health Risk Strategies, LLC.

The valuation has been conducted in accordance with generally accepted actuarial principles and practices. In our opinion, the actuarial assumptions represent reasonable expectations of anticipated plan experience.

To fulfill the applicable accounting requirements, each actuarial assumption should be management's "best estimate" solely with respect to that individual assumption.

Besides retiree medical, dental, and life, the District pays severance benefits to employees who meet specific age and service requirements upon retirement. Some severance benefits are based on unused sick days and fall under GASB 16, comparable to unused absences. Other severance benefits are pay related only and fall under GASB 27.

We are available to answer questions on the material contained in the report or to provide explanations or further detail, as may be appropriate.

I, Brenda K. Hardy, ASA, MAAA, am a consulting actuary for Van Iwaarden Associates. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Brenda K. Hardy, ASA, MAAA
Consulting Actuary

October 9, 2008

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Summary of Results

A. Valuation Census Data	<u>July 1, 2008</u>
1. Active employees	749
2. Covered retirees and beneficiaries	<u>48</u>
3. Total	797

B. GASB 43 and GASB 45 Results

	<u>Retiree Medical, Dental, and Life Insurance</u>	<u>Paid to HCSA</u>	<u>Total</u>
1. Benefit obligations			
a. Present value of District funded OPEB benefit	\$14,787,323	\$4,654,357	\$19,441,680
b. Actuarial Accrued Liability (AAL)	8,033,593	2,660,476	10,694,069
c. Normal cost (beginning of year)	459,959	162,552	622,511
d. Expected contributions during year	490,950	77,729	568,679
2. Annual Required Contribution (ARC)			1,265,851
3. Annual OPEB Cost			1,265,851

C. Reconciliation of Net OPEB Obligation

1. Net OPEB obligation as of July 1, 2008	0
2. Annual OPEB cost/(expense)	1,265,851
3. Contributions made (estimated)	<u>568,679</u>
4. Net OPEB obligation as of June 30, 2008 (1. + 2. -3.)	697,172

D. Compensated Absences

1. Total actuarial present value of severance benefits (PVB)	1,989,222
2. Total Projected Benefit Obligation (PBO)	939,050
3. Total Accrued Benefit Obligation (ABO)	514,950
4. Annual Required Contribution (ARC)	139,670

E. Key Economic Assumptions

1. Discount rate for liabilities	4.00%
2. Health care cost trend rate	10.0% to 5.0% in ten years

Valuation Census Data

This section presents the demographic information for the active and retired participants included in the postretirement medical benefit valuation. The actuarial valuation was based on June 30, 2007 census data provided by District. The following chart summarizes the personnel characteristics of the data used for the study.

	Family <u>Coverage</u>	Single <u>Coverage</u>	<u>Total</u>
<i>A. Retired Participants and Widow(er)s</i>			
1. Number under age 65	10	38	48
2. Number over age 65	0	0	0
3. Total	10	38	48
4. Average age			61.42
 <i>B. Active Participants</i>			
1. Retiree medical			
a. Number eligible to receive benefits			121
b. Number not eligible to receive benefits*			<u>628</u>
c. Total			749
d. Average age			45.00
2. Severance			
a. Total			749
b. Average age			45.00

*Participants who have not yet reached the retirement age and service requirements.

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Statement of Plan's Benefit Obligations

A. Post-Retirement Medical, Dental, and Life

1. Total District-funded actuarial present value	33,996,393
2. Present value of future employee contributions	14,554,713
3. Total District funded actuarial present value (1. - 2.)	19,441,680
4. Postretirement benefit obligation attributable to future service	<u>(8,747,611)</u>
5. Total Actuarial Accrued liability (AAL) (3. - 4.)	10,694,069
6. Breakdown of AAL	
a. Retirees under age 65	1,885,978
b. Active teachers	7,394,584
c. Active non-teachers	<u>1,413,507</u>
d. Total	10,694,069

B. Severance

1. Total actuarial present value of severance benefits (PVB) (based on projected service and salary)	1,989,222
2. Total Projected Benefit Obligation (PBO) (based on projected salary and service, but prorated for service to date)	939,050
3. Total Accrued Benefit Obligation (ABO) (based on projected service and salary to valuation date)	514,950

*July 1, 2008 Actuarial Valuation Post-Employment Benefits***Accounting Requirements**

This section presents the actuarial calculations used to fulfill the applicable accounting requirements for the plan.

Accounting Information under GASB 43 and GASB 45

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

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 (ARC) of the employer.

Valuing Postretirement Health Benefits

In reviewing these valuation results, it should be noted that determining the value of future health care benefits is challenged by the fact that assumptions must be made about many future events that are especially hard to predict. In general, future increases in health care costs for many plans are affected by many factors, including:

- Medical inflation
- Changes in utilization patterns
- Technological advances
- Cost shifting (i.e., increases in private plans' costs in non-managed programs due to uninsured claims, changes in the Medicare payment structure, and increased emphasis on managed care programs)
- Cost leveraging (i.e., erosion of fixed deductibles and out-of-pocket maximums)
- Changes to government medical programs, such as Medicare, when applicable. Under the Medicare Modernization Act of 2003 (MMA), a new prescription drug program called Medicare Part D 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.

July 1, 2008 Actuarial Valuation Post-Employment Benefits

Accounting Requirements (continued)

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)
- Participation (i.e., retirees electing coverage, the percentage married, and elections to contribute for coverage of spouses)
- Mortality rates (i.e., how long employees and spouses will receive benefits)

The Actuarial Assumptions section outlines the assumptions used in this valuation.

Estimating Health Care Costs

In addition to estimating future increases in health care claims costs, it is necessary to develop a starting claims cost value on a per covered individual basis for self-insured plans and even some insured plans.

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 estimated age-specific retiree costs rather than premiums. Age-adjusted claims are developed and used to value the retiree medical liability.

July 1, 2008 Actuarial Valuation Post-Employment Benefits

Schedule of Funding Progress and ARC - Retiree Medical

The following tables show the balance sheet and income statement figures if the District were to follow GASB 45 accounting. The unfunded accrued liability was amortized as a level dollar amount over 30 years. Assumptions and methods used are described in subsequent sections.

A. Schedule of funding progress

1. Actuarial valuation date	July 1, 2008
2. Plan assets at fair value	\$0
3. Actuarial accrued liability (AAL)	10,694,069
4. Unfunded AAL (UAAL) (3. - 2.)	10,694,069
5. Funded ratio (2. / 3.)	0.00%
6. Covered payroll	28,429,448
7. UAAL as a percentage of covered payroll (4. / 6.)	37.62%

B. Annual Required Contribution (ARC)

1. Normal cost	622,511
2. Amortization of UAAL over 30 years	594,653
3. Interest to the end of the year	<u>48,687</u>
4. Total year-end ARC	1,265,851

C. Annual OPEB Cost

1. Annual required contribution as of June 30, 2008	1,265,851
2. Interest on net OPEB obligation (NOO)	0
3. Adjustment to ARC (amortization of NOO)	<u>0</u>
4. Annual OPEB cost (expense) (1. + 2. + 3.)	1,265,851

D. Reconciliation of Net OPEB Obligation

1. Net OPEB obligation as of July 1, 2008	0
2. Annual OPEB cost (expense)	1,265,851
3. Contributions made (estimated)	<u>568,679</u>
4. Estimated Net OPEB obligation as of June 30, 2009 (1. + 2. - 3.)	697,172

E. Projected Reconciliation of Net OPEB Obligation

1. Net OPEB obligation as of July 1, 2009	697,172
2. Annual OPEB cost (expense)	
a. Annual required contribution	1,265,851
b. Interest on net OPEB obligation	27,887
c. Adjustment to ARC (amortization of NOO)	(40,318)
d. Total	1,253,420
3. Contributions made (estimated)	<u>689,657</u>
4. Estimated Net OPEB obligation as of June 30, 2010 (1. + 2. - 3.)	1,260,935

Notes

Expected retiree claims paid over the 2008 fiscal year net of retiree contributions	\$568,679
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Schedule of Funding Progress and ARC - Compensated Absences

GASB 45 does not cover termination or severance benefits. However, the District requested an illustration of liabilities and funding under the GASB format for the severance plan to assist in financial planning.

A. Schedule of funding progress

1. Actuarial valuation date	July 1, 2008
2. Plan assets at fair value	\$0
3. Actuarial accrued liability (AAL)	939,050
4. Unfunded AAL (UAAL) (3. - 2.)	939,050
5. Funded ratio (2. / 3.)	0.00%
6. Covered payroll	28,429,448
7. UAAL as a percentage of covered payroll (4. / 6.)	3.30%

B. Annual Required Contribution (ARC)

1. Normal cost	82,081
2. Amortization of UAAL over 30 years	52,217
3. Interest to the end of the year	<u>5,372</u>
4. Total year-end ARC	139,670

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Projection of the District's Obligations

Year	Retiree Medical/OPEB				Dollars to Health Care Savings Account	
	(a)	(b)	(c)	(a) - (b) - (c)	Teachers	Superintendent, Principals, and Administrators
Beginning	Total Retiree	Retiree Paid	District Paid	Implicit		
<u>July 1</u>	<u>Medical Obligation</u>	<u>Premiums</u>	<u>Premiums</u>	<u>Subsidy</u>	<u>Teachers</u>	<u>Administrators</u>
2008	\$632,342	\$141,392	\$327,841	\$163,109	\$70,680	\$7,049
2009	740,769	220,601	341,477	178,691	155,523	13,966
2010	878,281	326,072	340,979	211,230	166,524	18,933
2011	1,041,105	416,960	367,374	256,771	177,746	22,028
2012	944,780	436,543	299,425	208,812	198,981	23,470
2013	1,083,085	524,900	318,395	239,790	206,879	23,775
2014	1,186,592	606,707	322,662	257,223	210,100	25,340
2015	1,180,551	635,828	299,258	245,465	212,441	25,255
2016	1,255,535	679,569	315,846	260,120	203,904	26,301
2017	1,284,040	708,479	304,824	270,737	193,160	22,230
2018	1,184,348	672,181	271,566	240,601	188,142	17,018

Projected Compensated Absences Payments for unused sick leave

Year	Total
Beginning	
<u>July 1</u>	
2008	\$60,208
2009	52,307
2010	45,652
2011	55,033
2012	72,844
2013	72,157
2014	74,059
2015	81,316
2016	66,445
2017	72,083
2018	62,101

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Summary of Plan Provisions (continued)

Severance liability paid to Health Care Savings Plan - included as OPEB benefit

<u>Employment Group</u>	<u>Eligibility</u>	<u>Amount</u>
• Superintendent	Age 55 and 4 years of service	20 days of pay for each year of service
• Principals and Administrators hired before 7/1/2002	Age 55 and 10 years of service	110 days of pay
• Principals and Administrators hired after 7/1/2002	Age 55 and 15 years of service	110 days of pay
• Teachers	Age 55 and 12 years of service	A percent of pay based on the teachers step in the salary scale limited to a maximum payout of \$31,000

Compensated Absences

<u>Employment Group</u>	<u>Eligibility</u>	<u>Amount</u>
• Custodian	Age 55 and 15 years of service	Unused sick days up to 95 days limited to a maximum payout of \$20,000
• Food Service	Age 55 and 15 years of service	90% of accrued unused sick days
• Director Curriculum, Director HR, Director of Finance and Ops, Director of Special Education, Director of Community Education,	Age 55 and 10 years of service	Unused sick days up to 110 days
• Building and Grounds Supervisor, Food Service Supervisor	Age 55 and 15 years of service	Unused sick days up to 110 days
• Technology Supervisor, HS Tech Person, Tech Assistant, Accountant, Business Office Secretary, HR Secretary	Age 55 and 15 years of service	90% of accrued unused sick days up to 50 days
• MS Tech Person, Superintendent Secretary, Payroll	Age 55 and 15 years of service	50% of accrued unused sick days up to 60 days
• Phoenix Coordinator	Age 55 and 15 years of service	50% of accrued unused sick days up to 80 days
• Director of Technology	Age 55 and 10 years of service	50% of accrued unused sick days up to 80 days
• Office Employees	Age 55 and 15 years of service	80% of accrued unused sick days limited to a maximum payout of \$15,000
• Paraprofessionals	Age 55 and 15 years of service	70% of accrued unused sick days

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Actuarial Assumptions

This section describes the actuarial assumptions and methods used in this valuation of postretirement benefit costs.

Discount Rate 4% per year

Salary scale Salaries are assumed to increase 4% per year

Sample Age-based Monthly Retiree Medical Costs

	Triple	BCBS	
<u>Age</u>	<u>Gold</u>	<u>Select</u>	<u>Dental</u>
45	\$412.24	\$355.46	\$28.22
50	483.02	416.49	33.06
55	579.80	499.93	39.69
60	700.00	603.58	47.69
65	271.07	233.73	56.64

Health Trend Rates

Fiscal	Trend
<u>Year</u>	<u>Rates</u>
2008	10.00%
2009	9.50%
2010	9.00%
2011	8.50%
2012	8.00%
2013	7.50%
2014	7.00%
2015	6.50%
2016	6.00%
2017	5.50%
2018+	5.00%

Participation Rate

Actives

It is assumed that 100% of active participants continue the coverage until age 65. Participants are assumed to continue in their current coverage type (single or family).

Inactives

It is assumed that 100% of retirees will continue in their current coverage until age 65.

Retirement Age

<u>Age</u>	<u>Rate</u>
55 - 58	7%
59 - 60	9%
61 - 64	20%
65	40%
66 - 70	25%
71	100%

Mortality

RP-2000 Combined Mortality Tables for males and females

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Actuarial Assumptions (continued)

Withdrawal	<u>Age</u>	<u>Male</u>	<u>Female</u>
	20	8.40%	8.40%
	25	6.90%	6.90%
	30	5.40%	5.40%
	35	3.90%	4.20%
	40	3.00%	3.50%
	45	2.50%	3.00%
	50	2.00%	2.50%

Higher turnover is assumed in the first three years of employment. 40% of employees with less than 1 year of service will terminate employment, 15% with less than 2 years of service, and 10% with less than 3 years of service.

Disability	None
Actuarial Method	Projected Unit Credit.
Valuation Date	July 1, 2008
Amortization of Unfunded Actuarial Accrued Liability	Amortized as a level dollar amount over 30 years, open method

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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 (GAS 43) and 45(GAS 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 - 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 - the portion of the actuarial present value which is not provided for by future normal costs, determined under the actuarial cost method.

ARC - the 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 benefits.

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

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

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

Net OPEB obligation - 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 in determining the OPEB liability of the plan.