



March 13, 2020

Ms. Carol Eady  
Senior Director of Benefits & Compensation  
Milwaukee Public Schools  
Administration Building  
5225 West Vliet Street  
Milwaukee, Wisconsin 53208

**Subject: Milwaukee Public Schools – Retiree Healthcare and Life Insurance Benefits  
Closed Group – Cost Impact of Alternative Retirement Eligibility**

Dear Carol:

With respect to the retiree healthcare benefits (“OPEB”) program sponsored by Milwaukee Public Schools (“MPS”), we have estimated the cost impact of the following proposed changes in retirement eligibility:

	Baseline	Alternative A	Alternative B
Eligible for OPEB if hired before	July 1, 2013	July 1, 2013	July 1, 2013
Minimum age at retirement	60	57	55
Minimum service at retirement	20	20	15
Percentage of maximum sick leave accrued at retirement	90%	70%	70%

Our cost estimates are based on the following:

- Census data as of January 1, 2020, which reflects
  - 159 normal retirements
  - 278 retirements due to the Early Retirement Window (ERW) program
  - 85 active members who have elected to retire under the ERW (out of 342 eligible)
- Pension-related assumptions used for:
  - Actuarial valuations as of June 30, 2018, of the MPS Supplemental Pension Plans
  - Actuarial valuations as of January 1, 2019, of the City of Milwaukee Employees Retirement System
- OPEB-related assumptions used for the July 1, 2017, GASB 75 actuarial valuation adjusted for
  - Premium changes during fiscal years 2019 and 2020
  - Trend rate updates for fiscal years 2019 and 2020 based on actual premium increases
  - Decrease in long-term rate of return on assets from 7.25% to 7.00%
  - Decrease in the short-term rate of return on assets from 3.00% to 2.75%
- Accelerated retirement rates for members who are eligible for the ERW

- Increased retirement rates under Alternative A and Alternative B since members are able to retire earlier and receive healthcare benefits
- Increased likelihood that members are expected to accrue the minimum number of sick leave hours needed for a Board paid subsidy. Since the percentage of maximum accumulated sick leave at retirement was reduced from 90% to 70% under Alternative A and B, the likelihood was increased from 60% to 76%.
- Market value of assets as of January 31, 2020

The following table shows a (gain)/loss of the actuarial liabilities at December 31, 2019, by source before considering the impact of Alternative A or Alternative B:

(\$ in Millions)	
Projected Actuarial Liability as of December 31, 2019 @ 4.89%	\$880.6
Increase/(Decrease) Due To:	
Demographic Experience	\$17.5
Changes in Healthcare-Related Assumption	(\$48.4)
Changes in Pension-Related Assumptions	\$55.9
Changes in Plan Provisions	<u>\$0.0</u>
Total	\$25.0
Actuarial Liability as of January 1, 2020 @ 4.89%	\$905.6

The demographic experience components include: normal retirement, retirement under the ERW and termination. The healthcare related gains were primarily due to favorable claims experience and premium rate increases. The pension-related losses were primarily due to changes in the assumed mortality table.

Exhibit A breaks out the results of the actuarial valuation at January 1, 2020, by employee group.

### Cost Impact of Alternative Benefit Designs

Under the current plan provisions and funding policy, if MPS pre-funds five percent of expected claim costs and invests these contributions in a long-term account which earns 7.00 percent per year, then the program is projected to be fully funded by 2037.

The following tables shows key actuarial valuation results under the baseline and alternative scenarios including additional contribution needed to reach full funding by 2037:



(\$ in Millions)	Baseline (60/20/90%)	Alternative A (57/20/70%)	Alternative B (55/15/70%)
Actuarial Liability at 1/1/2020	\$ 905.62	\$ 973.64	\$ 1,000.74
Increase in Actuarial Liability		\$ 68.02	\$ 95.12
Market Value of Assets at 1/1/2020	160.57	160.57	160.57
Funded Ratio at 1/1/2020	17.7%	16.5%	16.0%
FY 2025 Expected PAYGO Contributions	57.24	60.79	64.16
FY 2025 Pre-Fund Contributions	2.86	3.04	3.60
Pre-fund Contributions as a Percent of PAYGO Contributions	5.0%	5.0%	5.6%
Year Program is Fully Funded	2037	2037	2037

Exhibits B, C, D and E provide more details on the projections.

Key observations include:

Alternative A reduces the retirement eligibility age from 60 to 57 and reduces the eligibility requirement relating to the percentage of maximum sick leave hours accrued at retirement from 90% to 70% and is expected to: (i) cause members to retire earlier and (ii) expand the group of members who are eligible to receive Board Paid subsidies at retirement. For members hired before July 1, 2013, this change is expected to increase the actuarial liability as of January 1, 2020, by approximately \$68.02 million.

Alternative B reduces the retirement eligibility age to 55, eligibility service to 15 and the percentage of maximum accrued sick leave hours to 70%. When compared to Baseline case (60/20/90%), Alternative B (55/15/70%) is expected to increase the actuarial liability at January 1, 2020, by \$95.12 million.

Exhibit E shows a projection of the expected increase in sponsor contributions. Calendar 2020 PAYGO contributions and pre-fund contributions are relatively close under the Baseline case, Alternative A and Alternative B. This is partially due to the ERW. That is, a significant number of members meeting the 55/20/90% ERW eligibility requirements have already retired or elected to retire under the ERW. However, in future years, Alternative A and Alternative B contributions are expected to increase significantly since the ERW eligibility period ends on June 30, 2020. For example, in calendar year 2025, sponsor contributions are expected to increase by \$3.73 million under Alternative A and \$7.66 million under Alternative B.

Under the current funding policy, PAYGO plus five percent of PAYGO, the program is projected to be fully funded by 2037 under the Baseline case and Alternative A. Under Alternative B, if pre-funding contributions are increased to 5.6% of PAYGO contributions, the program is projected to be fully funded by 2037. Even though benefits are more expensive under Alternative A and Alternative B, the significant increase in contributions caused the program to be fully funded by 2037 under all three scenarios.

### **Caveats**

This report is intended for use by MPS and those designated or approved by MPS. This report may be provided to parties other than MPS only in its entirety with supporting documents and only with the permission of MPS. This report should not be relied on for any purpose other than estimating the financial impact of providing the alternative scenarios as described in this report. GRS is not responsible for unauthorized use of this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

The actuaries submitting this statement are independent of the plan sponsor, 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.

To the best of our knowledge, the information contained in this report is accurate and fairly presents the financial impact of the changes described on the OPEB actuarial valuation results. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

If you have any questions or comments, please call us at 312.368.6613.

Sincerely,

Alex Rivera, F.S.A., E.A., M.A.A.A., F.C.A.  
Senior Consultant

Lance J. Weiss, E.A., M.A.A.A., F.C.A.  
Senior Consultant

cc. Mr. Matthew J. Chason, Milwaukee Public Schools



# Exhibit A

**Milwaukee Public Schools  
Retiree Healthcare and Life Insurance Programs  
Actuarial Valuation as of 12/31/2019  
Entry Age Normal Cost Method**

Discount Rate 4.89%  
Salary Scale <sup>1</sup> 3.00%  
Ultimate Trend <sup>2</sup> 4.50%  
Wage Inflation 3.00%

Amortization: 15-year closed, level dollar for unfunded retiree liabilities as of July 1, 2011, 25-year open, level percentage of payroll for remaining liabilities.

	Board/ Cabinet/ ASC	Building Trades	1053 Clerical/ Technical	150 Building Service	150 Food Service	1616 Education Employees	420 Engineers	Educational Assistants	Sub Teachers	Teachers	PAMPS	Others <sup>3</sup>	Total
<b>Retiree Healthcare Program</b>													
I) Actuarial Liability													
A) Health Insurance													
i) Active Employees	\$ 21,038,074	\$ 3,001,713	\$ 5,674,867	\$ 5,497,114	\$ 14,500,023	\$ 1,591,201	\$ 4,690,024	\$ 24,736,321	\$ -	\$ 114,394,473	\$ 2,785,408	\$ 273,610	\$ 198,182,828
ii) Retired and Disabled Participants	82,263,046	16,304,728	28,126,781	6,493,506	24,234,006	8,163,282	20,237,900	34,544,889	9,441,984	402,997,561	6,620,043	1,772,995	641,200,721
iii) Total	\$ 103,301,120	\$ 19,306,441	\$ 33,801,648	\$ 11,990,620	\$ 38,734,029	\$ 9,754,483	\$ 24,927,924	\$ 59,281,210	\$ 9,441,984	\$ 517,392,034	\$ 9,405,451	\$ 2,046,605	\$ 839,383,549
B) Life Insurance													
i) Active Employees	\$ 1,379,402	\$ 226,310	\$ 276,406	\$ 13,091	\$ 6,324	\$ 73,189	\$ 278,517	\$ 871,452	\$ -	\$ 7,398,352	\$ 267,947	\$ 13,850	\$ 10,804,840
ii) Retired and Disabled Participants	9,555,850	1,145,192	1,850,846	288,911	683,303	535,631	1,121,467	1,459,509	483,751	36,683,731	517,212	1,105,703	55,431,105
iii) Total	\$ 10,935,252	\$ 1,371,502	\$ 2,127,252	\$ 302,002	\$ 689,627	\$ 608,820	\$ 1,399,984	\$ 2,330,961	\$ 483,751	\$ 44,082,083	\$ 785,159	\$ 1,119,553	\$ 66,235,945
B) Total Liabilities	\$ 114,236,372	\$ 20,677,943	\$ 35,928,900	\$ 12,292,622	\$ 39,423,656	\$ 10,363,303	\$ 26,327,908	\$ 61,612,171	\$ 9,925,735	\$ 561,474,117	\$ 10,190,610	\$ 3,166,158	\$ 905,619,495
II) Assets													
	20,255,041	3,666,368	6,370,487	2,179,582	6,990,136	1,837,498	4,668,153	10,924,341	1,759,914	99,553,942	1,806,878	561,386	160,573,726
III) Unfunded Actuarial Liability (UAL)													
	93,981,331	17,011,575	29,558,413	10,113,040	32,433,520	8,525,805	21,659,755	50,687,830	8,165,821	461,920,175	8,383,732	2,604,772	745,045,769
IV) Normal Cost													
A) Health Insurance	\$ 195,835	\$ 64,032	\$ 77,681	\$ 86,797	\$ 247,697	\$ 28,891	\$ 70,562	\$ 391,067	\$ -	\$ 1,366,239	\$ 28,918	\$ 5,355	\$ 2,563,074
B) Life Insurance	22,909	4,109	2,965	11	18	1,218	3,455	13,652	-	92,570	2,718	285	143,910
C) Total	\$ 218,744	\$ 68,141	\$ 80,646	\$ 86,808	\$ 247,715	\$ 30,109	\$ 74,017	\$ 404,719	\$ -	\$ 1,458,809	\$ 31,636	\$ 5,640	\$ 2,706,984
D) Percentage of Payroll	0.50%	1.37%	1.30%	1.72%	2.79%	1.97%	1.14%	2.17%	N/A	0.73%	0.45%	1.57%	0.90%
V) Actuarially Determined Contribution (ADC)													
A) Normal Cost	\$ 218,744	\$ 68,141	\$ 80,646	\$ 86,808	\$ 247,715	\$ 30,109	\$ 74,017	\$ 404,719	\$ -	\$ 1,458,809	\$ 31,636	\$ 5,640	\$ 2,706,984
B) Amortization of UAL	12,427,202	2,098,001	4,109,775	1,020,990	3,734,504	1,208,462	2,544,902	5,213,402	1,242,178	59,451,061	911,874	451,609	94,413,961
C) Total	\$ 12,645,946	\$ 2,166,142	\$ 4,190,421	\$ 1,107,798	\$ 3,982,219	\$ 1,238,571	\$ 2,618,919	\$ 5,618,121	\$ 1,242,178	\$ 60,909,870	\$ 943,510	\$ 457,249	\$ 97,120,944
VI) Expected Employer Contributions													
A) Expected Healthcare Benefit Payments	\$ 6,387,985	\$ 1,459,473	\$ 2,337,151	\$ 548,121	\$ 1,963,685	\$ 672,613	\$ 1,757,982	\$ 2,813,743	\$ 537,599	\$ 30,790,996	\$ 529,953	\$ 119,743	\$ 49,919,044
B) Expected Life Insurance Benefit Payments	489,030	67,325	104,643	19,307	50,089	36,530	61,538	85,941	27,208	1,951,982	26,713	132,195	3,052,501
C) Additional Contributions	343,851	76,340	122,090	28,371	100,689	35,457	90,976	144,984	28,240	1,637,149	27,833	12,597	2,648,577
D) Total	\$ 7,220,866	\$ 1,603,138	\$ 2,563,884	\$ 595,799	\$ 2,114,463	\$ 744,600	\$ 1,910,496	\$ 3,044,668	\$ 593,047	\$ 34,380,127	\$ 584,499	\$ 264,535	\$ 55,620,122
E) Percentage of Payroll	16.5%	32.2%	41.4%	11.8%	23.8%	48.7%	29.3%	16.3%	N/A	17.3%	8.3%	73.8%	18.4%
VII) Expected Retiree Contributions													
	\$ (577,928)	\$ (33,257)	\$ (287,295)	\$ (43,254)	\$ (277,142)	\$ (25,190)	\$ (53,075)	\$ (305,086)	\$ (114,915)	\$ (3,158,921)	\$ (57,959)	\$ (14,078)	\$ (4,948,103)
VIII) Expected Actuarial Liability at Plan Year End													
	\$ 113,003,408	\$ 20,195,199	\$ 35,267,634	\$ 12,401,500	\$ 39,542,749	\$ 10,174,630	\$ 25,827,672	\$ 62,069,767	\$ 9,832,652	\$ 556,890,263	\$ 10,151,217	\$ 3,068,735	\$ 898,425,426
IX) Payroll													
	\$ 43,721,342	\$ 4,985,971	\$ 6,194,667	\$ 5,060,827	\$ 8,891,683	\$ 1,529,847	\$ 6,514,920	\$ 18,675,893	\$ -	\$ 198,761,616	\$ 7,050,378	\$ 358,567	\$ 301,745,711
X) Covered Member Counts													
A) Active Employees	457	68	157	156	399	39	114	690	-	2,722	79	8	4,889
B) Retired and Disabled Participants	838	170	317	74	290	93	174	386	93	4,171	64	19	6,689
C) Total	1,295	238	474	230	689	132	288	1,076	93	6,893	143	27	11,578



Exhibit B

Long-term asset return	7.000%
Short-term asset return	2.750%
Average number of monthly benefits in short-term reserve account	3
Pre funding contribution rate, percentage of expected benefits	5.000%
Operating expense rate, percentage of expected benefits	0.500%
Discount rate	4.890%

Baseline - 60/20/90%

CYE	Assets (boy)	Benefits	Operating Expense	PAYGO Contributions	Pre-Fund Contribution	Income Short-term Cash Flow	Income Long-term Account	Total Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2019									\$ 160,573,726	\$ 905,619,495	17.7%	
2020	\$ 160,573,726	\$ 52,971,545	\$ 264,858	\$ 52,971,545	\$ 2,648,577	\$ 364,179	\$ 10,313,159	\$ 10,677,338	173,634,784	898,425,426	19.3%	2,706,984
2021	173,634,784	52,833,057	264,165	52,833,057	2,641,653	363,227	11,229,856	11,593,084	187,605,355	890,793,136	21.1%	2,484,106
2022	187,605,355	54,611,541	273,058	54,611,541	2,730,577	375,454	12,176,673	12,552,127	202,615,002	880,820,980	23.0%	2,342,330
2023	202,615,002	55,569,938	277,850	55,569,938	2,778,497	382,043	13,210,576	13,592,620	218,708,269	869,252,636	25.2%	2,218,327
2024	218,708,269	56,400,967	282,005	56,400,967	2,820,048	387,757	14,322,562	14,710,319	235,956,631	856,143,690	27.6%	2,097,442
2025	235,956,631	57,244,833	286,224	57,244,833	2,862,242	393,558	15,515,180	15,908,738	254,441,386	841,405,362	30.2%	1,976,267
2026	254,441,386	58,234,071	291,170	58,234,071	2,911,704	400,359	16,791,801	17,192,160	274,254,079	824,786,796	33.3%	1,833,323
2027	274,254,079	59,209,856	296,049	59,209,856	2,960,493	407,068	18,161,613	18,568,681	295,487,204	806,206,579	36.7%	1,687,208
2028	295,487,204	60,052,981	300,265	60,052,981	3,002,649	412,864	19,633,177	20,046,041	318,235,629	785,705,903	40.5%	1,542,315
2029	318,235,629	60,378,858	301,894	60,378,858	3,018,943	415,105	21,219,864	21,634,969	342,587,646	763,733,106	44.9%	1,409,632
2030	342,587,646	60,484,861	302,424	60,484,861	3,024,243	415,833	22,922,650	23,338,484	368,647,949	740,432,156	49.8%	1,267,936
2031	368,647,949	60,496,772	302,484	60,496,772	3,024,839	415,915	24,746,663	25,162,578	396,532,882	715,850,684	55.4%	1,142,069
2032	396,532,882	60,881,427	304,407	60,881,427	3,044,071	418,560	26,691,877	27,110,437	426,382,983	689,523,107	61.8%	995,488
2033	426,382,983	60,543,553	302,718	60,543,553	3,027,178	416,237	28,787,297	29,203,534	458,310,976	662,136,048	69.2%	880,173
2034	458,310,976	60,167,969	300,840	60,167,969	3,008,398	413,655	31,028,829	31,442,484	492,461,018	633,685,529	77.7%	773,852
2035	492,461,018	59,521,020	297,605	59,521,020	2,976,051	409,207	33,430,653	33,839,860	528,979,325	604,396,593	87.5%	666,676
2036	528,979,325	58,482,323	292,412	58,482,323	2,924,116	402,066	36,005,112	36,407,178	568,018,207	574,639,715	98.8%	569,520
2037	568,018,207	57,172,618	285,863	57,172,618	2,858,631	393,062	38,760,754	39,153,815	609,744,790	544,673,953	111.9%	476,646



Exhibit C

Alternative A - 57/20/70%

Long-term asset return	7.000%
Short-term asset return	2.750%
Average number of monthly benefits in short-term reserve account	3
Pre funding contribution rate, percentage of expected benefits	5.000%
Operating expense rate, percentage of expected benefits	0.500%
Discount rate	4.890%

CYE	Assets (boy)	Benefits	Operating Expense	PAYGO Contributions	Pre-Fund Contribution	Income Short-term Cash Flow	Income Long-term Account	Total Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2019									\$ 160,573,726	\$ 973,639,430	16.5%	
2020	\$ 160,573,726	\$ 53,048,432	\$ 265,242	\$ 53,048,432	\$ 2,652,422	\$ 364,708	\$ 10,311,813	\$ 10,676,521	173,637,427	970,508,947	17.9%	\$ 3,503,888
2021	173,637,427	53,246,210	266,231	53,246,210	2,662,310	366,068	11,222,811	11,588,879	187,622,386	966,722,084	19.4%	3,210,237
2022	187,622,386	55,351,217	276,756	55,351,217	2,767,561	380,540	12,164,921	12,545,460	202,658,651	960,392,229	21.1%	3,013,048
2023	202,658,651	57,210,243	286,051	57,210,243	2,860,512	393,320	13,184,926	13,578,247	218,811,358	951,648,762	23.0%	2,817,623
2024	218,811,358	58,974,015	294,870	58,974,015	2,948,701	405,446	14,284,750	14,690,196	236,155,385	940,483,764	25.1%	2,634,454
2025	236,155,385	60,787,105	303,936	60,787,105	3,039,355	417,911	15,467,103	15,885,014	254,775,819	926,730,638	27.5%	2,453,556
2026	254,775,819	62,602,357	313,012	62,602,357	3,130,118	430,391	16,738,766	17,169,157	274,762,082	910,239,919	30.2%	2,252,455
2027	274,762,082	64,306,396	321,532	64,306,396	3,215,320	442,106	18,107,984	18,550,090	296,205,960	890,992,573	33.2%	2,052,265
2028	296,205,960	65,672,622	328,363	65,672,622	3,283,631	451,499	19,585,146	20,036,646	319,197,874	869,208,219	36.7%	1,860,321
2029	319,197,874	66,567,655	332,838	66,567,655	3,328,383	457,653	21,178,917	21,636,570	343,829,988	845,261,267	40.7%	1,683,896
2030	343,829,988	67,054,172	335,271	67,054,172	3,352,709	460,997	22,894,651	23,355,649	370,203,075	819,458,241	45.2%	1,501,504
2031	370,203,075	67,242,453	336,212	67,242,453	3,362,123	462,292	24,737,472	25,199,764	398,428,749	792,029,414	50.3%	1,334,339
2032	398,428,749	67,678,544	338,393	67,678,544	3,383,927	465,290	26,705,638	27,170,928	428,645,211	762,624,065	56.2%	1,150,162
2033	428,645,211	67,286,606	336,433	67,286,606	3,364,330	462,595	28,827,649	29,290,245	460,963,353	732,034,630	63.0%	1,006,071
2034	460,963,353	66,855,963	334,280	66,855,963	3,342,798	459,635	31,097,455	31,557,090	495,528,962	700,258,990	70.8%	877,745
2035	495,528,962	66,051,083	330,255	66,051,083	3,302,554	454,101	33,531,133	33,985,235	532,486,495	667,619,691	79.8%	746,753
2036	532,486,495	64,825,440	324,127	64,825,440	3,241,272	445,675	36,139,609	36,585,284	571,988,924	634,523,362	90.1%	633,274
2037	571,988,924	63,284,026	316,420	63,284,026	3,164,201	435,078	38,931,754	39,366,832	614,203,537	601,273,897	102.2%	522,572



Exhibit D

Long-term asset return	7.000%
Short-term asset return	2.750%
Average number of monthly benefits in short-term reserve account	3
Pre funding contribution rate, percentage of expected benefits	5.605%
Operating expense rate, percentage of expected benefits	0.500%
Discount rate	4.890%

Alternative B - 55/15/70%

CYE	Assets (boy)	Benefits	Operating Expense	PAYGO Contributions	Pre-Fund Contribution	Income Short-term Cash Flow	Income Long-term Account	Total Income	Assets (eoy)	Accrued Liability (eoy)	Funded Ratio	Normal Cost
2019									\$ 160,573,726	\$ 1,000,744,382	16.0%	
2020	\$ 160,573,726	\$ 53,181,655	\$ 265,908	\$ 53,181,655	\$ 2,980,619	\$ 365,624	\$ 10,309,482	\$ 10,675,106	173,963,543	1,003,105,499	17.3%	\$ 7,705,006
2021	173,963,543	53,737,764	268,689	53,737,764	3,011,787	369,447	11,237,037	11,606,484	188,313,125	1,004,260,469	18.8%	\$ 6,970,683
2022	188,313,125	56,343,480	281,717	56,343,480	3,157,827	387,361	12,195,908	12,583,269	203,772,504	1,002,325,435	20.3%	\$ 6,504,137
2023	203,772,504	59,048,926	295,245	59,048,926	3,309,456	405,961	13,230,719	13,636,680	220,423,396	997,057,582	22.1%	\$ 6,047,771
2024	220,423,396	61,591,794	307,959	61,591,794	3,451,974	423,444	14,351,781	14,775,225	238,342,635	988,483,898	24.1%	\$ 5,614,310
2025	238,342,635	64,161,861	320,809	64,161,861	3,596,016	441,113	15,561,152	16,002,265	257,620,106	976,430,328	26.4%	\$ 5,195,938
2026	257,620,106	66,717,315	333,587	66,717,315	3,739,239	458,682	16,865,854	17,324,536	278,350,294	960,725,016	29.0%	\$ 4,761,306
2027	278,350,294	69,059,689	345,298	69,059,689	3,870,519	474,785	18,275,976	18,750,761	300,626,277	941,401,812	31.9%	\$ 4,321,001
2028	300,626,277	70,890,926	354,455	70,890,926	3,973,153	487,375	19,803,248	20,290,623	324,535,598	918,827,563	35.3%	\$ 3,900,496
2029	324,535,598	72,094,455	360,472	72,094,455	4,040,606	495,649	21,455,839	21,951,488	350,167,220	893,522,683	39.2%	\$ 3,515,647
2030	350,167,220	72,804,031	364,020	72,804,031	4,080,375	500,528	23,237,635	23,738,163	377,621,737	865,848,788	43.6%	\$ 3,120,309
2031	377,621,737	73,053,606	365,268	73,053,606	4,094,362	502,244	25,155,083	25,657,327	407,008,159	836,197,260	48.7%	\$ 2,760,233
2032	407,008,159	73,219,948	366,100	73,219,948	4,103,685	503,387	27,209,222	27,712,609	438,458,353	804,553,982	54.5%	\$ 2,397,565
2033	438,458,353	72,658,247	363,291	72,658,247	4,072,204	499,525	29,420,565	29,920,091	472,087,357	771,640,602	61.2%	\$ 2,106,578
2034	472,087,357	72,015,324	360,077	72,015,324	4,036,171	495,105	31,785,847	32,280,952	508,044,403	737,505,378	68.9%	\$ 1,842,132
2035	508,044,403	70,962,217	354,811	70,962,217	3,977,148	487,865	34,321,269	34,809,135	546,475,875	702,512,101	77.8%	\$ 1,581,050
2036	546,475,875	69,521,714	347,609	69,521,714	3,896,414	477,962	37,036,681	37,514,643	587,539,324	667,037,737	88.1%	\$ 1,341,616
2037	587,539,324	67,771,620	338,858	67,771,620	3,798,328	465,930	39,941,749	40,407,679	631,406,473	631,382,547	100.0%	\$ 1,108,739





Exhibit E

	Baseline		Alternative A (57/20/70%) Increase in Contributions		Alternative B (55/15/70%) Increase in Contributions	
CYE	PAYGO Contributions	Pre-Fund Contributions	PAYGO Contributions	Pre-Fund Contributions	PAYGO Contributions	Pre-Fund Contributions
2020	52,971,545	2,648,577	76,887	3,844	210,110	332,042
2021	52,833,057	2,641,653	413,153	20,658	904,707	370,134
2022	54,611,541	2,730,577	739,676	36,984	1,731,939	427,250
2023	55,569,938	2,778,497	1,640,305	82,015	3,478,988	530,959
2024	56,400,967	2,820,048	2,573,048	128,652	5,190,827	631,925
2025	57,244,833	2,862,242	3,542,272	177,114	6,917,028	733,774
2026	58,234,071	2,911,704	4,368,286	218,414	8,483,244	827,535
2027	59,209,856	2,960,493	5,096,540	254,827	9,849,833	910,027
2028	60,052,981	3,002,649	5,619,641	280,982	10,837,945	970,504
2029	60,378,858	3,018,943	6,188,797	309,440	11,715,597	1,021,663
2030	60,484,861	3,024,243	6,569,311	328,466	12,319,170	1,056,132
2031	60,496,772	3,024,839	6,745,681	337,284	12,556,834	1,069,524
2032	60,881,427	3,044,071	6,797,117	339,856	12,338,521	1,059,614
2033	60,543,553	3,027,178	6,743,053	337,153	12,114,694	1,045,026
2034	60,167,969	3,008,398	6,687,994	334,400	11,847,355	1,027,772
2035	59,521,020	2,976,051	6,530,063	326,503	11,441,197	1,001,097
2036	58,482,323	2,924,116	6,343,117	317,156	11,039,391	972,298
2037	57,172,618	2,858,631	6,111,408	305,570	10,599,002	939,697

