



GASB 74/75 ACTUARIAL VALUATION

Fiscal Year Ending June 30, 2019

STATE OF INDIANA

CONTACT

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December 9, 2019

**Andy Blough, FSA, EA, MAAA
Indiana Public Retirement System
One North Capital, Suite 001
Indianapolis, IN 46204**

This report summarizes the GASB actuarial valuation for the State of Indiana 2018/19 fiscal year. To the best of our knowledge, the report presents a fair position of the funded status of the plan in accordance with GASB Statement No. 74 (Financial Reporting for Post-Employment Benefit Plans Other Than Pension Plans) and GASB Statement No. 75 (Accounting and Financial Reporting by Employers for Post-Employment Benefits Other Than Pensions).

The information presented herein is based on the actuarial assumptions and substantive plan provisions summarized in this report and participant information furnished to us by the Plan Sponsor. We have reviewed the employee census provided by the Plan Sponsor for reasonableness when compared to the prior information provided but have not audited the information at the source, and therefore do not accept responsibility for the accuracy or the completeness of the data on which the information is based. When relevant data may be missing, we may have made assumptions we feel are neutral or conservative to the purpose of the measurement. We are not aware of any significant issues with and have relied on the data provided.

The discount rate, other economic assumptions, and demographic assumptions have been selected by the Plan Sponsor with the concurrence of Nyhart. In our opinion, the actuarial assumptions are individually reasonable and in combination represent our estimate of anticipated experience of the Plan. All calculations have been made in accordance with generally accepted actuarial principles and practice.

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); and
- changes in plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement.

To our knowledge, there have been no significant events prior to the current year's measurement date or as of the date of this report that could materially affect the results contained herein.



Neither Nyhart nor any of its employees has any relationship with the plan or its sponsor that could impair or appear to impair the objectivity of this report. Our professional work is in full compliance with the American Academy of Actuaries "Code of Professional Conduct" Precept 7 regarding conflict of interest. The undersigned meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Should you have any questions please do not hesitate to contact us.

A handwritten signature in black ink that reads "Randy Gomez".

Randy Gomez, FSA, MAAA
Consulting Actuary

A handwritten signature in black ink that reads "Suraj M. Datta".

Suraj M. Datta, ASA, MAAA
Consulting Actuary

A handwritten signature in black ink that reads "Emily Clauss".

Emily Clauss, ASA, MAAA
Valuation Actuary

SECTION A - EXECUTIVE SUMMARY



Executive Summary

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Detailed Actuary's Notes

The following plan provision and assumption changes have been made since last year's interim valuation, which was for the fiscal year ending June 30, 2018:

1. For Indiana State Police (ISP):
 - Effective July 1, 2019, the life insurance benefit for retirees was modified such that all retirees (regardless of date of retirement) will receive a \$20,000 benefit. This change led to a slight increase in liabilities.
2. For Conservation and Excise Police (CEP):
 - Effective on January 1, 2020, all post-65 Medicare eligible retirees will be removed from the CEP's traditional health plan. They will be covered under a self-insured Medicare Advantage Plan through Anthem and a Medicare Part D plan. Since the premiums charged to retirees are lower than the full cost of coverage, there is still a GASB liability for this benefit. This change led to an increase in liabilities.
3. For State Personnel
 - The termination assumption for those earning less than \$20,000 per year was updated to follow the follow the PERF termination rates as of June 30, 2018 for this group. This change led to a slight decrease in liabilities.
4. For the Legislature
 - Effective on January 1, 2019, all ISP post-65 Medicare eligible retirees were removed from the ISP's traditional health plan. They will be covered under a Medicare Advantage Plan through Anthem and a Medicare Part D plan with premiums paid fully by the retiree. These members will also be given a flat HRA contribution of \$74.92 per eligible person for life while participating in the Medicare Advantage plan. This will continue to be available to surviving spouses of deceased retirees. This change is now being reflected for Legislature actives and retirees covered under the ISP's plan. This led to a significant decrease in liabilities.

For all groups as applicable, dental and vision trend rates have been reset to a flat 3.00%. This change caused a slight increase in all entities TOL.



Executive Summary

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Detailed Actuary's Notes - Continued

For the funded groups (State Personnel, ISP and CEP), we have updated the discount rate assumption to be based on a blended rate using the expected rate of return on assets (3.25% for State Personnel and CEP and 6.20% for ISP) for years when investments are expected to be sufficient to pay the projected benefit payments and the yield 20-year-tax-exempt general obligation municipal bonds (3.51% as of June 30, 2019) for years when investments are insufficient to cover future benefit payments. The following discount rates were used for this year's valuation:

- State Personnel: 3.26% as of June 30, 2019 and 3.87% as of July 1, 2018
- ISP: 6.20% as of June 30, 2019 and 3.87% as of July 1, 2018
- CEP: 3.36% as of June 30, 2019 and 3.87% as of July 1, 2018

Refer to the Discussion of Discount Rates section for more information on selection of the discount rate. Making this change resulted in an increase in liabilities for State Personnel and CEP and a decrease in liabilities for ISP.

For the Legislature, which is unfunded, we have updated the discount rate assumption based on the yield for 20-year-tax-exempt general obligation municipal bonds as of June 30, 2019 (measurement date). The discount rate is 3.51% as of June 30, 2019 and 3.87% as of July 1, 2018. Refer to the Discussion of Discount Rates section for more information on selection of the discount rate. Making this change resulted in an increase in liabilities.



Executive Summary

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Summary of Results

Presented below is the summary of GASB 74/75 results (for all employee groups) for the fiscal year ending June 30, 2019.

<i>As of June 30, 2019</i>	<i>State Personnel</i>		<i>Legislature</i>		<i>Indiana State Police (ISP)</i>		<i>Conservation and Excise Police (CEP)</i>		<i>Total</i>
Total OPEB Liability	\$	57,423,651	\$	8,090,224	\$	198,445,243	\$	76,898,620	\$ 340,857,738
Actuarial Value of Assets		(46,203,020)		0		(137,969,003)		(23,722,678)	(207,894,701)
Net OPEB Liability	\$	11,220,631	\$	8,090,224	\$	60,476,240	\$	53,175,942	\$ 132,963,037
Funded Ratio		80.5%		0.0%		69.5%		30.8%	61.0%

<i>For FY 2018/19</i>	<i>State Personnel</i>		<i>Legislature</i>		<i>ISP</i>		<i>CEP</i>		<i>Total</i>
OPEB Expense	\$	3,354,114	\$	(1,111,052)	\$	(6,823,178)	\$	7,471,119	\$ 2,891,003
Annual Employer Contribution	\$	3,336,598	\$	534,515	\$	23,936,818	\$	4,020,900	\$ 31,828,831

<i>As of June 30, 2019</i>	<i>State Personnel</i>		<i>Legislature</i>		<i>ISP</i>		<i>CEP</i>	
Discount Rate		3.26%		3.51%		6.20%		3.36%
Expected Return on Assets		3.25%		N/A		6.20%		3.25%

<i>As of June 30, 2019</i>	<i>State Personnel</i>		<i>Legislature</i>		<i>ISP</i>		<i>CEP</i>		<i>Total</i>
Total Active Participants		25,659		113		1,688		244	27,704
Total Retiree Participants		552		34		1,076		198	1,860



Executive Summary

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Liabilities Breakdown

Below is a breakdown of total GASB 75 liabilities allocated to past and current service compared to the prior year. The table below also provides a breakdown of the Total OPEB Liability allocated to pre and post Medicare eligibility. The liability shown below includes explicit (if any) and implicit subsidies. Refer to the Substantive Plan Provisions section for complete information on the Plan Sponsor's GASB subsidies.

<i>Present Value of Future Benefits (PVFB)</i>	<i>State Personnel</i>		<i>Legislature</i>		<i>ISP</i>		<i>CEP</i>	
Active Employees	\$	77,729,267	\$	1,005,476	\$	154,706,874	\$	75,325,520
Retired Employees		7,727,648		7,574,511		95,932,157		34,067,492
Total PVFB	\$	85,456,915	\$	8,579,987	\$	250,639,031	\$	109,393,012

<i>Total OPEB Liability</i>	<i>State Personnel</i>		<i>Legislature</i>		<i>ISP</i>		<i>CEP</i>	
Active Pre-Medicare	\$	49,696,003	\$	72,530	\$	79,093,184	\$	22,079,459
Active Post-Medicare		0		443,183		23,419,902		20,751,669
Active Liability	\$	49,696,003	\$	515,713	\$	102,513,086	\$	42,831,128
Retiree Pre-Medicare	\$	7,727,648	\$	1,433,278	\$	21,395,721	\$	9,174,745
Retiree Post-Medicare		0		6,141,233		74,536,436		24,892,747
Retiree Liability	\$	7,727,648	\$	7,574,511	\$	95,932,157	\$	34,067,492
Total OPEB Liability	\$	57,423,651	\$	8,090,224	\$	198,445,243	\$	76,898,620

<i>As of June 30, 2019</i>	<i>State Personnel</i>	<i>Legislature</i>	<i>ISP</i>	<i>CEP</i>
Discount Rate	3.26%	3.51%	6.20%	3.36%

Present Value of Future Benefits (PVFB) is the amount needed as of June 30, 2019, to fully fund the State's retiree health care subsidies for existing and future retirees and their dependents assuming all actuarial assumptions are met.

Total OPEB Liability is the portion of PVFB considered to be accrued or earned as of June 30, 2019. This amount is a required disclosure in the Required Supplementary Information section.

SECTION B – STATE PERSONNEL



GASB Disclosures (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Schedule of Changes in Net OPEB Liability and Related Ratios

OPEB Liability	FY 2018/19	FY 2017/18
Total OPEB Liability		
Total OPEB liability – beginning of year	\$ 47,525,294	\$ 53,040,129
Service cost	1,932,796	2,113,477
Interest	1,851,245	1,909,791
Changes of benefit terms	0	0
Changes in assumptions	2,802,670	(1,163,973)
Differences between expected and actual experience	6,587,365	(5,331,960)
Benefit payments	(3,275,719)	(3,042,170)
Net change in total OPEB liability	\$ 9,898,357	\$ (5,514,835)
Total OPEB liability – end of year	\$ 57,423,651	\$ 47,525,294
Plan Fiduciary Net Position		
Plan fiduciary net position – beginning of year	\$ 45,489,242	\$ 44,998,027
Contributions – employer	3,336,598	3,384,366
Contributions – active employees	0	0
Net investment income	1,006,887	546,743
Benefit payments	(3,275,719)	(3,042,170)
Trust administrative expenses	(353,988)	(397,724)
Net change in plan fiduciary net position	\$ 713,778	\$ 491,215
Plan fiduciary net position – end of year	\$ 46,203,020	\$ 45,489,242
Net OPEB Liability – end of year	\$ 11,220,631	\$ 2,036,052
Plan fiduciary net position as % of total OPEB liability	80.5%	95.7%
Covered employee payroll	\$ 1,470,677,680	\$ 1,262,054,123
Net OPEB liability as % of covered payroll	0.8%	0.7%



GASB Disclosures (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Schedule of Employer Contributions

The Actuarially Determined Contributions (ADC) shown below prior to FY 2016/17 are based on the Annual Required Contribution (ARC) calculated in prior GASB 45 actuarial valuations as shown in the Plan Sponsor financial statements.

	<i>FY 2018/19</i>	<i>FY 2017/18</i>	<i>FY 2016/17</i>	<i>FY 2015/16</i>	<i>FY 2014/15</i>
Actuarially Determined Contribution (ADC)	\$ 3,275,719 ¹	\$ 3,042,170	\$ 3,060,429	\$ 1,537,527	\$ 1,838,675
Contributions in relation to the ADC ²	3,336,598	3,384,366	4,801,561	2,977,166	3,567,257
Contribution deficiency / (excess)	\$ (60,879)	\$ (342,196)	\$ (1,741,132)	\$ (1,439,639)	\$ (1,728,582)

Covered employee payroll	\$ 1,470,677,680	\$ 1,262,054,123	\$ 1,234,282,761	\$ 1,148,771,000	\$ 1,180,296,000
Contribution as a % of covered employee payroll	0.2%	0.3%	0.4%	0.3%	0.3%

	<i>FY 2013/14</i>	<i>FY 2012/13</i>	<i>FY 2011/12</i>	<i>FY 2010/11</i>	<i>FY 2009/10</i>
Actuarially Determined Contribution (ADC)	\$ 1,009,935	\$ 940,502	\$ 2,964,232	\$ 4,664,253	\$ 6,292,153
Contributions in relation to the ADC ⁴	3,200,158	4,202,964	33,849,768	16,922,179	1,913,380
Contribution deficiency / (excess)	\$ (2,190,223)	\$ (3,262,462)	\$ (30,885,536)	\$ (12,257,926)	\$ 4,378,773

Covered employee payroll	\$ 1,219,424,000	\$ 1,208,402,000	\$ 1,166,823,000	\$ N/A	\$ N/A
Contribution as a % of covered employee payroll	0.3%	0.3%	2.9%	N/A	N/A

¹ Refer to the Actuarially Determined Contributions section for the calculation details.

² Includes employer contribution for pay-go cost and (any) pre-funding contributions deposited into the OPEB Trust.



GASB Disclosures (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

OPEB Expense

<i>OPEB Expense</i>	<i>FY 2018/19</i>	<i>FY 2017/18</i>
Discount rate as of beginning of fiscal year	3.87%	3.56%
Discount rate as of end of fiscal year	3.26%	3.87%
Service cost	\$ 1,932,796	\$ 2,113,477
Interest	1,851,245	1,909,791
Changes of benefit terms	0	0
Projected earnings on OPEB plan investments	(1,473,675)	(1,461,541)
Reduction for contributions from active employees	0	0
OPEB plan administrative expenses	353,988	397,724
Current period recognition of deferred outflows / (inflows) of resources		
Differences between expected and actual experience	\$ 179,343	\$ (761,709)
Changes in assumptions	234,099	(166,282)
Net difference between projected and actual earnings on OPEB plan investments	276,318	182,960
Total current period recognition	\$ 689,760	\$ (745,031)
Total OPEB expense	\$ 3,354,114	\$ 2,214,420



GASB Disclosures (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Deferred Outflows / (Inflows) of Resources

Deferred Outflows / (Inflows) of Resources represents the following items that have not been recognized in the OPEB Expense:

1. Differences between expected and actual experience of the OPEB plan
2. Changes of assumptions
3. Difference between projected and actual earnings in OPEB plan investments

The initial amortization period for the first two items noted above is based on the average future service to retirement while the difference between projected and actual earnings in OPEB plan investment is amortized over five years. All balances are amortized linearly on a principal only basis and new bases will be created annually for each of the item above.

<i>Differences between expected and actual experience for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2019</i>
June 30, 2018	\$ (5,331,960)	7	\$ (761,709)	\$ (3,808,542)
June 30, 2019	\$ 6,587,365	7	\$ 941,052	\$ 5,646,313

<i>Changes in assumptions for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2019</i>
June 30, 2018	\$ (1,163,973)	7	\$ (166,282)	\$ (831,409)
June 30, 2019	\$ 2,802,670	7	\$ 400,381	\$ 2,402,289

<i>Net difference between projected and actual earnings in OPEB plan investments for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2019</i>
June 30, 2018	\$ 914,798	5	\$ 182,960	\$ 548,878
June 30, 2019	\$ 466,788	5	\$ 93,358	\$ 373,430



GASB Disclosures (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Deferred Outflows / (Inflows) of Resources - Continued

<i>As of fiscal year ending June 30, 2019</i>	<i>Deferred Outflows</i>	<i>Deferred Inflows</i>
Differences between expected and actual experience	\$ 5,646,313	\$ (3,808,542)
Changes in assumptions	2,402,289	(831,409)
Net difference between projected and actual earnings in OPEB plan investments	922,308	0
Total	\$ 8,970,910	\$ (4,639,951)

Annual Amortization of Deferred Outflows / (Inflows)

The balances as of June 30, 2019 of the deferred outflows / (inflows) of resources will be recognized in OPEB expense in the future fiscal years as noted below.

<i>FYE</i>	<i>Balance</i>
2020	\$ 689,760
2021	\$ 689,760
2022	\$ 689,758
2023	\$ 506,798
2024	\$ 413,446
Thereafter	\$ 1,341,437



GASB Disclosures (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Sensitivity Results

The following presents the net OPEB liability as of June 30, 2019, calculated using the discount rate assumed and what it would be using a 1% higher and 1% lower discount rate.

- The current discount rate is 3.26%.
- The 1% decrease in discount rate would be 2.26%.
- The 1% increase in discount rate would be 4.26%.

<i>As of June 30, 2019</i>	<i>Net OPEB Liability</i>
1% Decrease	\$ 16,137,312
Current Discount Rate	\$ 11,220,631
1% Increase	\$ 6,746,076

The following presents the net OPEB liability as of June 30, 2019, using the health care trend rates assumed and what it would be using 1% higher and 1% lower health care trend rates.

- The current health care trend rate starts at an initial rate of 8.0% decreasing by 0.5% annually to an ultimate rate of 4.5%.
- The 1% decrease in health care trend rates would assume an initial rate of 7.0% decreasing by 0.5% annually to an ultimate rate of 3.5%.
- The 1% increase in health care trend rates would assume an initial rate of 9.0% decreasing by 0.5% annually to an ultimate rate of 5.5%.

<i>As of June 30, 2019</i>	<i>Net OPEB Liability</i>
1% Decrease	\$ 5,606,445
Current Health Care Trend Rates	\$ 11,220,631
1% Increase	\$ 17,831,552



Asset Information (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Asset Information

<i>Asset Breakdown</i>	<i>FY 2017/18</i>	<i>FY 2018/19</i>
Assets		
Cash and cash equivalents	\$ 239,607	\$ 200,471
Securities lending cash collateral	0	0
Total cash	\$ 239,607	\$ 200,471
Receivables		
Contributions	\$ 543,648	\$ 171,696
Accrued interest	43,055	93,283
Total receivables	\$ 586,703	\$ 264,979
Investments		
Fixed income	\$ 44,872,553	\$ 45,865,288
Equities	0	0
Mutual Funds	0	0
Other	0	0
Total investments	\$ 44,872,553	\$ 45,865,288
Total assets	\$ 45,698,863	\$ 46,330,738
Liabilities		
Payables		
Investment management fees	\$ 0	\$ 127,718
Benefits	(209,621)	0
Total liabilities	\$ (209,621)	\$ 127,718
Net position restricted to OPEB	\$ 45,489,242	\$ 46,203,020



Asset Information (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Asset Information

<i>Asset Reconciliation</i>	<i>FY 2017/18</i>	<i>FY 2018/19</i>
Additions		
Contributions received		
Employer	\$ 3,384,366	\$ 3,336,598
Employee	0	0
Total contributions	\$ 3,384,366	\$ 3,336,598
Investment income		
Net increase in fair value of investments	\$ 546,743	\$ 1,006,887
Interests and dividends	0	0
Investment expense, other than from securities lending	0	0
Securities lending income	0	0
Securities lending expense	0	0
Net investment income	\$ 546,743	\$ 1,006,887
Total additions	\$ 3,931,109	\$ 4,343,485
Deductions		
Benefit payments (net of retiree contributions)	\$ (3,042,170)	\$ (3,275,719)
Administrative expenses	(397,724)	(353,988)
Other	0	0
Total deductions	\$ (3,439,894)	\$ (3,629,707)
Net increase in net position	\$ 491,215	\$ 713,778
Net position restricted to OPEB		
Beginning of year	44,998,027	45,489,242
End of year	\$ 45,489,242	\$ 46,203,020



Actuarially Determined Contributions (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Actuarially Determined Contribution

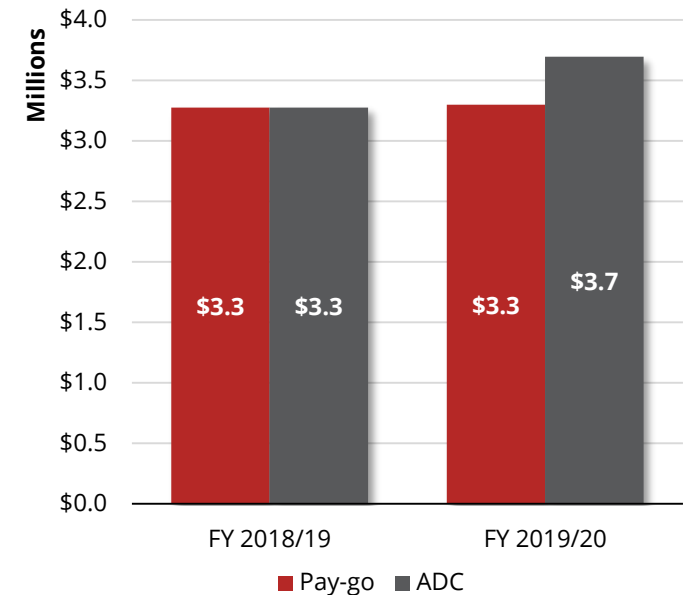
The Actuarially Determined Contributions calculated below are recommended target contributions and assumes that the Plan Sponsor has the ability to contribute these amounts on an annual basis. The Plan Sponsor has the responsibility to decide how much it should contribute after considering its other needs and the OPEB participants' needs.

	FY 2018/19	FY 2019/20
Discount rate	4.50%	3.25%
Payroll growth factor used for amortization	N/A	N/A
Actuarial cost method	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary
Amortization type	Level Dollar	Level Dollar
Amortization period	28 years	27 years
Actuarial accrued liability (AAL) – beginning of year	\$ 45,263,848	\$ 57,470,613
Actuarial value of assets – beginning of year	(45,489,242)	(46,203,020)
Unfunded AAL – beginning of year	\$ (225,394)	\$ 11,267,593
Normal Cost	\$ 1,715,353	\$ 2,967,044
Amortization of UAAL	(13,701)	613,261
Total normal cost plus amortization	\$ 1,701,652	\$ 3,580,305
Interest to the end of year	76,574	116,360
Actuarially Determined Contribution – Preliminary	\$ 1,778,226	\$ 3,696,665
Expected benefit payments ³	3,275,719	3,298,598
Actuarially Determined Contribution – Final⁴	\$ 3,275,719	\$ 3,696,665

³ Actual for FY 2018/19

⁴ Set to be the greater of the preliminary ADC and expected benefit payments.

Cash vs Accrual Accounting



Actuarially Determined Contribution (ADC) is the target or recommended contribution to a defined benefit OPEB plan, which if paid on an ongoing basis, will provide sufficient resources to fund future costs for services to be earned and liabilities attributed to past services. This is typically higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.



Projection of GASB Results (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Projection of GASB Results

The Total OPEB Liability (TOL) is expected to change on an annual basis as a result of expected and unexpected events. Under normal circumstances, it is generally expected to have a net increase each year. Below is a list of the most common events affecting the total OPEB liability and whether they increase or decrease the liability.

Expected Events

- Increases in TOL due to additional benefit accruals as employees continue to earn service each year
- Increases in TOL due to interest as the employees and retirees age
- Decreases in TOL due to benefit payments

Unexpected Events

- Increases in TOL when actual premium rates increase more than expected. A liability decrease occurs if the reverse happens.
- Increases in TOL when more new retirements occur than expected or fewer terminations occur than anticipated. Liability decreases occur when the opposite outcomes happen.
- Increases or decreases in TOL depending on whether benefits are improved or reduced.

<i>Projection of Total OPEB Liability (TOL)</i>	<i>FY 2018/19</i>	<i>FY 2019/20</i>
TOL as of beginning of year	\$ 47,525,294	\$ 57,423,651
Normal cost as of beginning of year	1,932,796	2,961,092
Exp. benefit payments during the year	(3,275,719)	(3,298,598)
Interest adjustment to end of year	1,851,245	1,915,207
Exp. TOL as of end of year	\$ 48,033,616	\$ 59,001,352
Actuarial Loss/(Gain)	9,390,035	TBD
Actual TOL as of end of year	\$ 57,423,651	\$ TBD

<i>Projection of Actuarial Value of Assets (AVA)</i>	<i>FY 2018/19</i>	<i>FY 2019/20</i>
AVA as of beginning of year	\$ 45,489,242	\$ 46,203,020
Exp. employer contributions during the year ⁵	3,336,598	3,522,067
Exp. benefit payments during the year	(3,275,719)	(3,522,067)
Exp. investment income ⁶	1,473,675	1,495,411
Exp. Trust administrative expenses	(353,988)	(383,826)
Exp. AVA as of end of year	\$ 46,669,808	\$ 47,314,605
Differences between expected and actual experience	(466,788)	TBD
AVA as of end of year	\$ 46,203,020	\$ TBD

⁵ Employer contribution for 2018/19 is based on actual employer contribution made into the Trust. FY 2019/20 expected employer contribution is based on the final ADC as shown on page B-9.

⁶ Fiscal years 2018/19 and 2019/20 expected investment income are calculated based on a 3.25% asset return.



Employer Contribution Cash Flow Projections (STATE PERSONNEL)

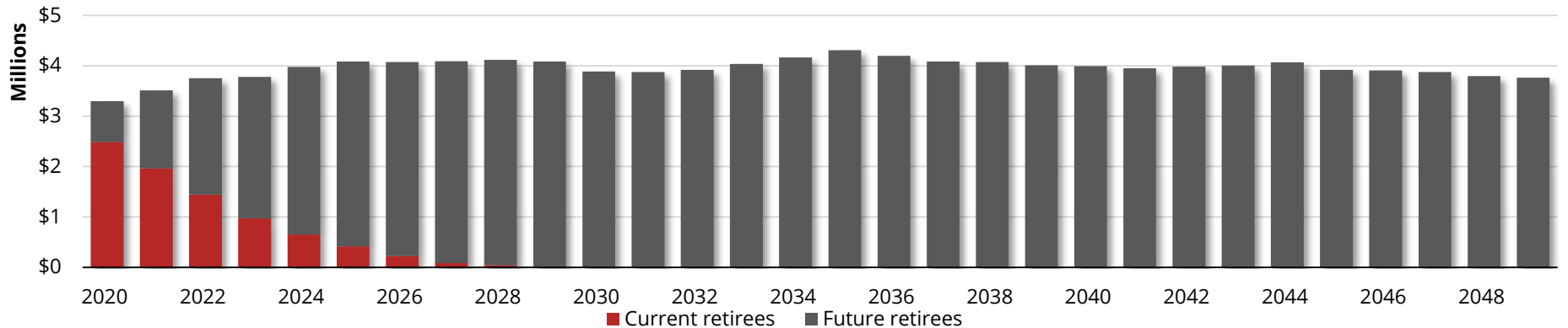
State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Employer Contribution Cash Flow Projections

The below projections show the actuarially estimated employer-paid contributions for retiree health benefits for the next thirty years. Results are shown separately for a closed group of current / future retirees. These projections include explicit and implicit subsidies.

FYE	Current Retirees	Future Retirees ⁷	Total	FYE	Current Retirees	Future Retirees ⁸	Total	FYE	Current Retirees	Future Retirees ⁸	Total
2020	\$ 2,489,618	\$ 808,980	\$ 3,298,598	2030	\$ 8,762	\$ 3,876,892	\$ 3,885,654	2040	\$ 0	\$ 3,993,184	\$ 3,993,184
2021	\$ 1,962,733	\$ 1,550,529	\$ 3,513,262	2031	\$ 133	\$ 3,876,786	\$ 3,876,919	2041	\$ 0	\$ 3,949,390	\$ 3,949,390
2022	\$ 1,444,944	\$ 2,307,158	\$ 3,752,102	2032	\$ 150	\$ 3,918,561	\$ 3,918,711	2042	\$ 0	\$ 3,984,728	\$ 3,984,728
2023	\$ 972,133	\$ 2,808,076	\$ 3,780,209	2033	\$ 170	\$ 4,035,339	\$ 4,035,509	2043	\$ 0	\$ 4,004,594	\$ 4,004,594
2024	\$ 649,411	\$ 3,330,514	\$ 3,979,925	2034	\$ 0	\$ 4,167,247	\$ 4,167,247	2044	\$ 0	\$ 4,071,537	\$ 4,071,537
2025	\$ 417,390	\$ 3,668,552	\$ 4,085,942	2035	\$ 0	\$ 4,309,181	\$ 4,309,181	2045	\$ 0	\$ 3,918,784	\$ 3,918,784
2026	\$ 224,259	\$ 3,852,255	\$ 4,076,514	2036	\$ 0	\$ 4,197,960	\$ 4,197,960	2046	\$ 0	\$ 3,907,939	\$ 3,907,939
2027	\$ 85,386	\$ 4,007,190	\$ 4,092,576	2037	\$ 0	\$ 4,087,063	\$ 4,087,063	2047	\$ 0	\$ 3,877,067	\$ 3,877,067
2028	\$ 40,323	\$ 4,076,901	\$ 4,117,224	2038	\$ 0	\$ 4,075,822	\$ 4,075,822	2048	\$ 0	\$ 3,796,271	\$ 3,796,271
2029	\$ 8,440	\$ 4,077,281	\$ 4,085,721	2039	\$ 0	\$ 4,009,901	\$ 4,009,901	2049	\$ 0	\$ 3,765,519	\$ 3,765,519

Projected Employer Pay-go Cost



⁷ Projections for future retirees do not take into account future new hires.



Discussion of Discount Rates (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Under GASB 74, the discount rate used in valuing OPEB liabilities for funded plans as of the Measurement Date must be based on the long-term expected rate of return on OPEB plan investments that are expected to be used to finance future benefit payments to the extent that (a) they are sufficient to pay for the projected benefit payments and (b) the OPEB plan assets are invested using a strategy that will achieve that return. When the OPEB plan investments are insufficient to cover future benefit payments, a yield for 20-year tax-exempt general obligation municipal bonds with an average rating of AA /Aa or higher (or equivalent quality on another rating scale) must be used.

For the current valuation:

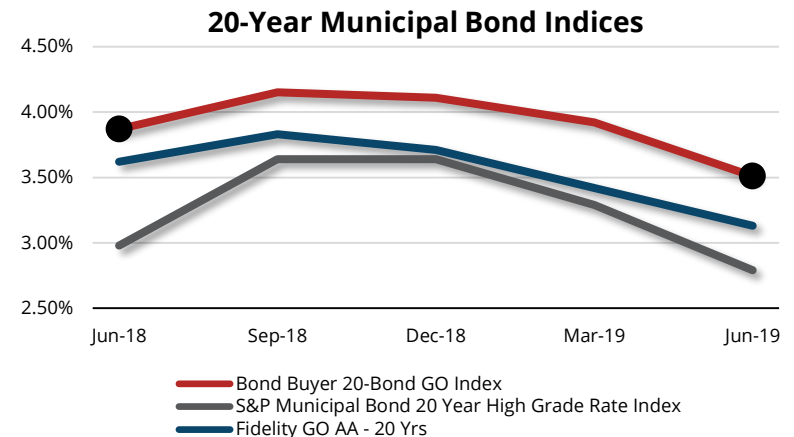
1. The long-term expected rate of return on OPEB plan investment is 3.25%. This was determined using a building block method in which expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These expected future real rates of return are then combined to produce the long-term expected rate of return by weighting them based on the target asset allocation percentage and adding in expected inflation (2.25%). The best estimates of arithmetic real rates of return for each major asset class included in the OPEB Plan's target asset allocation as of June 30, 2019 are summarized in the following table.

Asset Class	Target Allocation	L/T Expected Real ROR (JP Morgan)
U.S. Bond	100.00%	1.00%

2. The discount rate used when the OPEB plan investments are insufficient to pay for future benefit payments are selected from the range of indices as shown in the table below, where the range is given as the spread between the lowest and highest rate shown.

Yield as of	July 1, 2018	June 30, 2019
Bond Buyer Go 20-Bond Municipal Bond Index	3.87%	3.51%
S&P Municipal Bond 20-Year High Grade Rate Index	2.98%	2.79%
Fidelity 20-Year Go Municipal Bond Index	3.62%	3.13%
Bond Index Range	2.98% - 3.87%	2.79% - 3.51%
Actual Discount Rate Used	3.87%	3.51%

3. The final equivalent single discount rate used for this year's valuation is 3.87% as of July 1, 2018 and 3.26% as of June 30, 2019, with the expectation that the State will continue to contribute at least the Actuarially Determined Contribution each year.





Summary of Plan Participants (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Active Employees

<i>Actives with coverage</i>	<i>Single</i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>
Traditional PPO	107	17	124	60.9	24.1	\$ 7,261,492
CDHP 1	8,200	8,539	16,739	44.0	8.6	\$ 749,799,150
CDHP 2	396	201	597	52.0	13.3	\$ 31,413,429
CDHP Wellness	2,891	5,308	8,199	45.8	12.3	\$ 449,699,130
Total actives with coverage	11,594	14,065	25,659	44.9	10.0	\$ 1,238,173,201

<i>Actives without coverage</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>
Total actives without coverage	5,274	42.1	6.4	\$ 232,504,479

For active employees who currently have no coverage, 40% of them are assumed to elect coverage after meeting PERF eligibility requirement. They have been included in the GASB valuation.



Summary of Plan Participants (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Active Age-Service Distribution

Age	Years of Service										Total	
	< 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up		
Under 25	1,103	1,053	4									2,160
25 to 29	970	2,290	348	1								3,609
30 to 34	642	1,721	893	200	2							3,458
35 to 39	451	1,258	716	697	153	3						3,278
40 to 44	398	1,087	589	556	406	138	4					3,178
45 to 49	380	959	589	556	426	402	175	6				3,493
50 to 54	336	811	512	526	392	351	443	196	18			3,585
55 to 59	225	792	500	546	466	376	342	404	183	32		3,866
60 to 64	134	472	398	458	337	277	256	248	202	150		2,932
65 to 69	30	146	155	155	125	101	82	73	36	110		1,013
70 & up	10	31	47	63	40	36	40	27	22	45		361
Total	4,679	10,620	4,751	3,758	2,347	1,684	1,342	954	461	337		30,933



Summary of Plan Participants (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Summary of Plan Participants - Retirees

<i>Retirees with coverage</i>	<i>Single</i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>
Traditional PPO	5		5	63.8
CDHP 1	346	27	373	62.3
CDHP 2	20		20	63.4
CDHP Wellness	136	18	154	62.4
Total retirees with coverage	507	45	552	62.4

Retiree Age Distribution

<i>Age</i>	<i>Retirees</i>
< 45	
45 to 49	
50 to 54	1
55 to 59	76
60 to 64	475
65 to 69	
70 to 74	
75 to 79	
80 to 84	
85 to 89	
90 & up	
Total	552



Substantive Plan Provisions (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Eligibility

State Employees

State employees are eligible for retiree health care benefits once they attain age 55 with 15 years of service.

Judges

Judges are eligible for retiree health care benefits once they attain age 62 with 8 years of service credit as a participant in the Indiana judges' retirement fund.

Prosecuting Attorneys

Prosecuting attorneys are eligible for retiree health care benefits once they attain age 62 with 10 years of service credit as a participant in the prosecuting attorneys retirement fund.

All Groups

Retired employee's eligibility to continue retiree health care coverage ends when the retiree becomes eligible for Medicare coverage (typically at age 65).

Spouse Coverage

Surviving spouse coverage ends at the earlier of Medicare eligibility or 2 years after the death of the retiree.

State Explicit Subsidy

None

Retiree Contributions

Retirees pay the full premium rate as determined by the State.

Medical Benefit

The same benefit options are available to retirees as active employees. All health plans are self-insured. The 2020 monthly premium rates by plan for non-tobacco users are as shown below:

Plans	Single	Family
CDHP 1	\$ 542.36	\$ 1,636.05
CDHP 2	\$ 598.74	\$ 1,795.65
CDHP Wellness	\$ 511.16	\$ 1,542.45
Traditional PPO	\$ 778.14	\$ 2,334.50

Dental and Vision Benefits

There is no GASB liability and no implicit subsidy is generated for dental and vision benefits as retirees pay the full cost for these benefits.



Substantive Plan Provisions (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Life Insurance None

Senate Enrolled Act 501

Purpose Senate Enrolled Act 501 establishes a retirement medical benefits account for elected officers, appointed officers, and employees of the executive, legislative, and judicial branches of state government to pay for participants' medical expenses after retirement.

Eligibility A participant who:

- a. Is eligible for and has applied to receive a normal, unreduced or disability retirement benefit under PERF; or
- b. Has completed at least 10 years of service as an elected or appointed officer; or
- c. Has completed at least 15 years of service with the state for an employee

is entitled to receive a benefit from this account.

Annual State Contributions The bill requires the state to make annual contributions to the account based on the following schedule:

Employee's Age	Annual State Contributions
Less than 30	\$ 500
At least 30 but less than 40	\$ 800
At least 40 but less than 50	\$ 1,100
At least 50	\$ 1,400

Bonus Contributions An additional bonus contribution is to be made upon a participant's retirement with normal unreduced benefits if the retirement occurs between July 1, 2007 and July 1, 2017, and the retiree on the last day of service has completed at least 15 years of service or 10 years of service as an elected or appointed officer.

The additional bonus contribution amount is one thousand dollars (\$1,000) multiplied by the participant's years of service (rounded down to the nearest whole year).



Substantive Plan Provisions (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Senate Enrolled Act 501

Surviving Spouse

Surviving spouse or IRS dependent of a retired participant is allowed to receive the benefit from this account. Amounts credited to a retired participant are forfeited if the participant dies without a surviving spouse or IRS dependent.

GASB 74/75 Impact

The Senate Enrolled Act 501 plan is considered a defined contribution individual account for GASB 43 and 45 purposes and has no unfunded liabilities. The employer subsidy is defined in terms of an annual contribution to an individual account. Plan assets are maintained in a Trust Fund. All benefits and expenses in administering the Plan will be paid from the Fund. Money in the Fund may not be transferred, assigned, or otherwise removed from the Fund by the state board of finance, the Agency or any other state agency, and does not revert to the state general fund at the end of any state fiscal year.

The presence of this individual-account is expected to increase the percentage of future retirees electing to continue health coverage under the State plan. As a result, the health coverage election rate assumption has been set at 40% for retirements occurring after employees have met the minimum eligibility to use his/her individual account.

The Retirement Medical Benefits Account Trust Fund consists of cigarette tax revenues deposited in the fund under IC 6-7-1-28.1(7) and other appropriations, revenues, or transfers to the trust fund under IC 4-12-1. Beginning on July 1, 2012, these cigarette tax revenues are temporarily redirected to the General Fund per HEA 1001 (2011) in order to recover prior General Fund overpayments to the plan. Beginning on July 1, 2014, cigarette tax revenues will once again be deposited directly to the trust fund. The plan benefits satisfy the condition of being a defined contribution OPEB benefit and by definition, there is no unfunded liability.



Actuarial Assumptions and Methods (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Measurement Date	June 30, 2019
Actuarial Valuation Date	June 30, 2019 with no adjustments to get to the June 30, 2019 measurement date. Liabilities as of July 1, 2018 are based on an actuarial valuation date of July 1, 2017 projected to July 1, 2018 on a “no loss / no gain” basis.
Discount Rate	3.87% as of July 1, 2018 and 3.26% as of June 30, 2019 for accounting disclosure purposes; refer to the Discussion of Discount Rates section for more information on selection of the discount rate. 4.50% as of July 1, 2018 and 3.25% as of June 30, 2019 for calculating Actuarially Determined Contribution
Inflation Rate	2.25%
Cost Method	Allocation of Actuarial Present Value of Future Benefits for services prior and after the Measurement Date was determined using Entry Age Normal Level % of Salary method where: <ul style="list-style-type: none"> • service Cost for each individual participant, payable from date of employment to date of retirement, is sufficient to pay for the participant’s benefit at retirement; and • annual Service Cost is a constant percentage of the participant’s salary that is assumed to increase according to the Payroll Growth.
Salary Scale	2.25% for general wage inflation plus the following merit and productivity increases which are based on the assumption used in the Indiana Public Retirement System (INPRS) actuarial valuation as of June 30, 2018.

Age	General
20	2.00%
30	2.00%
40	1.50%
50	1.00%

Census Data Census data was provided by the State and it was collected as of June 30, 2019. We have reviewed it for reasonableness and no material modifications were made to the census data.

Data Assumption The State has separate rates for tobacco and non-tobacco users, however these rates are not enforced for retired users. All retirees contribute the non-tobacco rates.



Actuarial Assumptions and Methods (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Contribution Funding Policy

The State contributes at least the Actuarially Determined Contribution annually.

Mortality

Pre and post-retirement mortality rates are based on SS-2012 Employee and Annuitant Mortality Table fully generational using SSA scale

Disability

None expected

Retirement Rate

Annual retirement rates follow the PERF, PARF, and Judges' Retirement System rates as of June 30, 2018. Sample rates are as shown below:

State Personnel

Age	< 10 YOS	10 YOS	15 YOS	25 YOS	27 YOS	29 YOS	30+ YOS
50	0%	0%	4%	4%	4%	4%	4%
55	0%	0%	5%	5%	5%	5%	14%
60	0%	0%	12%	12%	12%	12%	12%
62	0%	0%	22%	22%	22%	22%	22%
65	0%	30%	30%	30%	30%	30%	30%
67+	0%	100%	100%	100%	100%	100%	100%

Judges

Age	< 8 YOS	8 - 22 YOS	22+ YOS
55 - 61	0%	0%	70%
62	0%	25%	70%
63	0%	15%	70%
64	0%	10%	70%
65	0%	50%	70%
66 - 74	0%	30%	70%
75+	0%	100%	100%

Attorneys

Age	< 10 YOS	10 - 22 YOS	22+ YOS
55 - 61	0%	0%	70%
62	0%	20%	70%
63	0%	20%	70%
64	0%	20%	70%
65+	0%	100%	100%



Actuarial Assumptions and Methods (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Withdrawal Rate

Assumption used to project terminations (voluntary and involuntary) prior to meeting minimum retirement eligibility for retiree health care coverage.

Annual withdrawal rates for judges follow the Public Employees Retirement Fund (PERF), Prosecuting Attorneys' Retirement Fund (PARF), and Judges' Retirement System as of June 30, 2018. Sample rates are as shown below:

State Personnel >= \$20k earnings - Male

Age	0 YOS	2 YOS	5 YOS	7 YOS	9 YOS	10+ YOS
20	23%	23%	17%	12%	7%	7%
30	22%	19%	13%	12%	7%	7%
40	17%	14%	10%	9%	5%	5%
50	14%	9%	9%	7%	4%	4%
60	13%	7%	7%	7%	4%	4%

State Personnel >= \$20k earnings - Female

Age	0 YOS	2 YOS	5 YOS	7 YOS	9 YOS	10+ YOS
20	23%	23%	17%	12%	8%	8%
30	21%	21%	14%	12%	8%	8%
40	18%	16%	12%	9%	8%	6%
50	16%	15%	9%	9%	6%	6%
60	16%	11%	9%	9%	6%	6%

**State Personnel
< \$20k earnings**

Age	Male	Female
20	31%	36%
30	26%	25%
40	21%	15%
50	14%	11%
60	14%	11%

Judges

Age	Rates
All ages	3%

Attorney

Age	Rates
All ages	10%



Actuarial Assumptions and Methods (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Per Capita Costs

Annual per capita costs are based on medical and prescription drug claims and enrollment data for the 24-month period ending May 31, 2019 projected to the 2019/20 plan year and includes administrative expenses effective on January 1, 2019 projected to January 1, 2020 using a 3% trend assumption. The per capita costs were actuarially increased to a retiree-basis using health index factors and enrollment by plan. The costs are assumed to increase with health care trend rates.

Age	Trad PPO	CDHP 1	CDHP 2	CDHP Wellness
<55	\$ 15,500	\$ 7,800	\$ 12,800	\$ 7,700
55 - 59	\$ 18,600	\$ 9,400	\$ 15,400	\$ 9,200
60 - 64	\$ 23,100	\$ 11,700	\$ 19,100	\$ 11,400

The per capita costs represent the cost of coverage for a retiree-only population.

Actuarial standards require the recognition of higher inherent costs for a retired population versus an active population.

There are no GASB liabilities for dental and vision benefits as retirees pay the full cost of coverage.

Health Care Trend Rates

FYE	Medical/Rx	FYE	Medical/Rx
2020	8.0%	2024	6.0%
2021	7.5%	2025	5.5%
2022	7.0%	2026	5.0%
2023	6.5%	2027+	4.5%

The initial trend rate was based on a combination of employer history, national trend surveys, and professional judgment.

The ultimate trend rate was selected based on historical medical CPI information.

Contribution Trend Rates

Retiree contributions are assumed to increase with Health Care Trend Rates.

Spousal Coverage

70% of male and 55% of female employees are assumed to be married upon retirement. Husbands are assumed to be three years older than wives.

Spousal coverage for current retirees is based on actual data.



Actuarial Assumptions and Methods (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Health Care Coverage Election Rate

Active Employees

Actives with Current Health Coverage

15% of employees are assumed to elect coverage at retirement. Once the employees have met the PERF eligibility for normal, unreduced or a disability pension, the election rate increases to 40% due to the presence of the Senate Enrolled Act 501 account balance.

PERF eligibility requirement is the earlier of:

- a. Age 55 with 85 points
- b. Age 60 with 15 years of service
- c. Age 65 with 10 years of service

Actives without Current Health Coverage

40% of employees are assumed to elect coverage at retirement after meeting the PERF retirement eligibility.

Inactive Employees

Based on actual data

Explicit Subsidy

The difference between (a) the premium rate approved by the State and (b) the retiree contribution. Below is an example of the monthly explicit subsidies for a retiree enrolled in CDHP 1 plan with non-tobacco use incentive.

	Premium Rate	Retiree Contribution	Explicit Subsidy
	A	B	C = A - B
Retiree	\$ 542.36	\$ 542.36	\$ 0.00
Spouse	\$ 1,093.69	\$ 1,093.69	\$ 0.00



Actuarial Assumptions and Methods (STATE PERSONNEL)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Implicit Age Subsidy

The difference between (a) the per capita cost as determined by Nyhart and (b) the premium rate approved by the State. Below is an example of the monthly implicit subsidies for a retiree age 62 and spouse of the same age enrolled in CDHP 1 plan with non-tobacco incentive.

	Per Capita Cost	Premium Rate*	Implicit Age Subsidy
	A	B	C = A - B
Retiree	\$ 975.00	\$ 542.36	\$ 432.64
Spouse	\$ 975.00	\$ 975.00	\$ 0.00

All employers that utilize premium rates based on blended active/retiree claims experience will have an implicit subsidy. There is an exception for Medicare plans using a true community-rated premium rate.

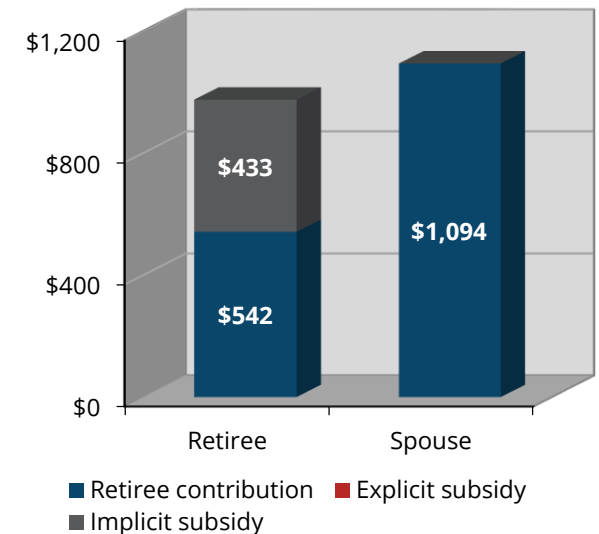
* Spouse premium rate has been limited to the per capita cost.

GASB Subsidy Breakdown

Below is a breakdown of the GASB 74/75 monthly total cost for a retiree age 62 and his spouse of the same age enrolled in CDHP 1 plan with non-tobacco incentive.

	Retiree		Spouse	
Retiree contribution	\$	542.36	\$	1,093.69
Explicit subsidy	\$	0.00	\$	0.00
Implicit subsidy	\$	432.64	\$	0.00
Total monthly cost	\$	975.00	\$	1,093.69

GASB Subsidy Breakdown



SECTION C - LEGISLATURE



GASB Disclosures (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Schedule of Changes in Net OPEB Liability and Related Ratios

OPEB Liability	FY 2018/19	FY 2017/18
Total OPEB Liability		
Total OPEB liability – beginning of year	\$ 9,994,526	\$ 11,987,469
Service cost	113,767	120,023
Interest	380,946	420,082
Changes of benefit terms	(1,062,888)	0
Changes in assumptions	335,132	(385,363)
Differences between expected and actual experience	(1,136,744)	(1,527,405)
Benefit payments	(534,515)	(620,280)
Net change in total OPEB liability	\$ (1,904,302)	\$ (1,992,943)
Total OPEB liability – end of year	\$ 8,090,224	\$ 9,994,526
Plan Fiduciary Net Position		
Plan fiduciary net position – beginning of year	\$ 0	\$ 0
Contributions – employer	534,515	620,280
Contributions – active employees	0	0
Net investment income	0	0
Benefit payments	(534,515)	(620,280)
Trust administrative expenses	0	0
Net change in plan fiduciary net position	\$ 0	\$ 0
Plan fiduciary net position – end of year	\$ 0	\$ 0
Net OPEB Liability – end of year	\$ 8,090,224	\$ 9,994,526
Plan fiduciary net position as % of total OPEB liability	0.0%	0.0%
Covered employee payroll	\$ N/A	\$ N/A
Net OPEB liability as % of covered payroll	N/A	N/A



GASB Disclosures (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

OPEB Expense

<i>OPEB Expense</i>	<i>FY 2018/19</i>	<i>FY 2017/18</i>
Discount rate as of beginning of fiscal year	3.87%	3.56%
Discount rate as of end of fiscal year	3.51%	3.87%
Service cost	\$ 113,767	\$ 120,023
Interest	380,946	420,082
Changes of benefit terms	(1,062,888)	0
Projected earnings on OPEB plan investments	0	0
Reduction for contributions from active employees	0	0
OPEB plan administrative expenses	0	0
Current period recognition of deferred outflows / (inflows) of resources		
Differences between expected and actual experience	\$ (532,830)	\$ (305,481)
Changes in assumptions	(10,047)	(77,073)
Net difference between projected and actual earnings on OPEB plan investments	0	0
Total current period recognition	\$ (542,877)	\$ (382,554)
Total OPEB expense	\$ (1,111,052)	\$ 157,551



GASB Disclosures (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Deferred Outflows / (Inflows) of Resources

Deferred Outflows / (Inflows) of Resources represents the following items that have not been recognized in the OPEB Expense:

1. Differences between expected and actual experience of the OPEB plan
2. Changes of assumptions
3. Difference between projected and actual earnings in OPEB plan investments

The initial amortization period for the first two items noted above is based on the average future service to retirement while the difference between projected and actual earnings in OPEB plan investment is amortized over five years. All balances are amortized linearly on a principal only basis and new bases will be created annually for each of the item above.

<i>Differences between expected and actual experience for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2019</i>
June 30, 2018	\$ (1,527,405)	5	\$ (305,481)	\$ (916,443)
June 30, 2019	\$ (1,136,744)	5	\$ (227,349)	\$ (909,395)

<i>Changes in assumptions for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2019</i>
June 30, 2018	\$ (385,363)	5	\$ (77,073)	\$ (231,217)
June 30, 2019	\$ 335,132	5	\$ 67,026	\$ 268,106

<i>Net difference between projected and actual earnings in OPEB plan investments for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2019</i>
June 30, 2018	\$ 0	5	\$ 0	\$ 0
June 30, 2019	\$ 0	5	\$ 0	\$ 0



GASB Disclosures (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Deferred Outflows / (Inflows) of Resources - Continued

<i>As of fiscal year ending June 30, 2019</i>	<i>Deferred Outflows</i>	<i>Deferred Inflows</i>
Differences between expected and actual experience	\$ 0	\$ (1,825,838)
Changes in assumptions	268,106	(231,217)
Net difference between projected and actual earnings in OPEB plan investments	N/A	N/A
Total	\$ 268,106	\$ (2,057,055)

Annual Amortization of Deferred Outflows / (Inflows)

The balances as of June 30, 2019 of the deferred outflows / (inflows) of resources will be recognized in OPEB expense in the future fiscal years as noted below.

<i>FYE</i>	<i>Balance</i>
2020	\$ (542,877)
2021	\$ (542,877)
2022	\$ (542,875)
2023	\$ (160,320)
2024	\$ 0
Thereafter	\$ 0



GASB Disclosures (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Sensitivity Results

The following presents the net OPEB liability as of June 30, 2019, calculated using the discount rate assumed and what it would be using a 1% higher and 1% lower discount rate.

- The current discount rate is 3.51%.
- The 1% decrease in discount rate would be 2.51%.
- The 1% increase in discount rate would be 4.51%.

<i>As of June 30, 2019</i>	<i>Net OPEB Liability</i>	
1% Decrease	\$	9,161,951
Current Discount Rate	\$	8,090,224
1% Increase	\$	7,218,577

The following presents the net OPEB liability as of June 30, 2019, using the health care trend rates assumed and what it would be using 1% higher and 1% lower health care trend rates.

- The current health care trend rate starts at an initial rate of 8.0% decreasing by 0.5% annually to an ultimate rate of 4.5%.
- The 1% decrease in health care trend rates would assume an initial rate of 7.0% decreasing by 0.5% annually to an ultimate rate of 3.5%.
- The 1% increase in health care trend rates would assume an initial rate of 9.0% decreasing by 0.5% annually to an ultimate rate of 5.5%.

<i>As of June 30, 2019</i>	<i>Net OPEB Liability</i>	
1% Decrease	\$	7,246,437
Current Health Care Trend Rates	\$	8,090,224
1% Increase	\$	9,105,869



Projection of GASB Results (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Projection of GASB Results

The Total OPEB Liability (TOL) is expected to change on an annual basis as a result of expected and unexpected events. Under normal circumstances, it is generally expected to have a net increase each year. Below is a list of the most common events affecting the total OPEB liability and whether they increase or decrease the liability.

Expected Events

- Increases in TOL due to additional benefit accruals as employees continue to earn service each year
- Increases in TOL due to interest as the employees and retirees age
- Decreases in TOL due to benefit payments

Unexpected Events

- Increases in TOL when actual premium rates increase more than expected. A liability decrease occurs if the reverse happens.
- Increases in TOL when more new retirements occur than expected or fewer terminations occur than anticipated. Liability decreases occur when the opposite outcomes happen.
- Increases or decreases in TOL depending on whether benefits are improved or reduced.

<i>Projection of Total OPEB Liability (TOL)</i>	<i>FY 2018/19</i>	<i>FY 2019/20</i>
TOL as of beginning of year	\$ 9,994,526	\$ 8,090,224
Normal cost as of beginning of year	113,767	43,131
Exp. benefit payments during the year	(534,515)	(493,765)
Interest adjustment to end of year	380,946	276,890
Exp. TOL as of end of year	\$ 9,954,724	\$ 7,916,480
Actuarial Loss/(Gain)	(1,864,500)	TBD
Actual TOL as of end of year	\$ 8,090,224	\$ TBD



Employer Contribution Cash Flow Projections (LEGISLATURE)

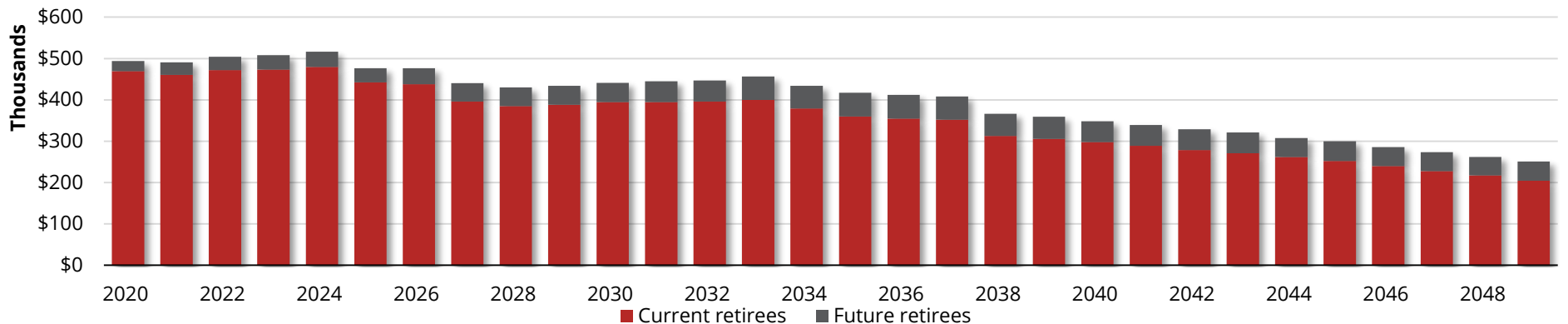
State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Employer Contribution Cash Flow Projections

The below projections show the actuarially estimated employer-paid contributions for retiree health benefits for the next thirty years. Results are shown separately for a closed group of current / future retirees. These projections include explicit and implicit subsidies.

FYE	Current Retirees	Future Retirees ⁸	Total	FYE	Current Retirees	Future Retirees ⁹	Total	FYE	Current Retirees	Future Retirees ⁹	Total
2020	\$ 469,770	\$ 23,995	\$ 493,765	2030	\$ 394,767	\$ 46,152	\$ 440,919	2040	\$ 298,121	\$ 49,971	\$ 348,092
2021	\$ 460,595	\$ 30,387	\$ 490,982	2031	\$ 394,919	\$ 49,847	\$ 444,766	2041	\$ 288,747	\$ 50,324	\$ 339,071
2022	\$ 472,217	\$ 31,919	\$ 504,136	2032	\$ 395,829	\$ 51,147	\$ 446,976	2042	\$ 278,849	\$ 50,439	\$ 329,288
2023	\$ 473,456	\$ 34,875	\$ 508,331	2033	\$ 400,007	\$ 56,553	\$ 456,560	2043	\$ 271,248	\$ 50,296	\$ 321,544
2024	\$ 479,641	\$ 36,980	\$ 516,621	2034	\$ 379,100	\$ 55,115	\$ 434,215	2044	\$ 261,974	\$ 46,038	\$ 308,012
2025	\$ 442,376	\$ 34,422	\$ 476,798	2035	\$ 359,981	\$ 57,157	\$ 417,138	2045	\$ 252,208	\$ 47,941	\$ 300,149
2026	\$ 437,586	\$ 39,058	\$ 476,644	2036	\$ 354,474	\$ 57,370	\$ 411,844	2046	\$ 240,133	\$ 45,912	\$ 286,045
2027	\$ 396,237	\$ 44,038	\$ 440,275	2037	\$ 352,420	\$ 55,712	\$ 408,132	2047	\$ 227,496	\$ 46,270	\$ 273,766
2028	\$ 384,746	\$ 45,436	\$ 430,182	2038	\$ 312,720	\$ 53,660	\$ 366,380	2048	\$ 217,747	\$ 44,389	\$ 262,136
2029	\$ 388,182	\$ 45,921	\$ 434,103	2039	\$ 305,576	\$ 53,887	\$ 359,463	2049	\$ 204,401	\$ 46,314	\$ 250,715

Projected Employer Pay-go Cost



⁸ Projections for future retirees do not take into account future new hires.



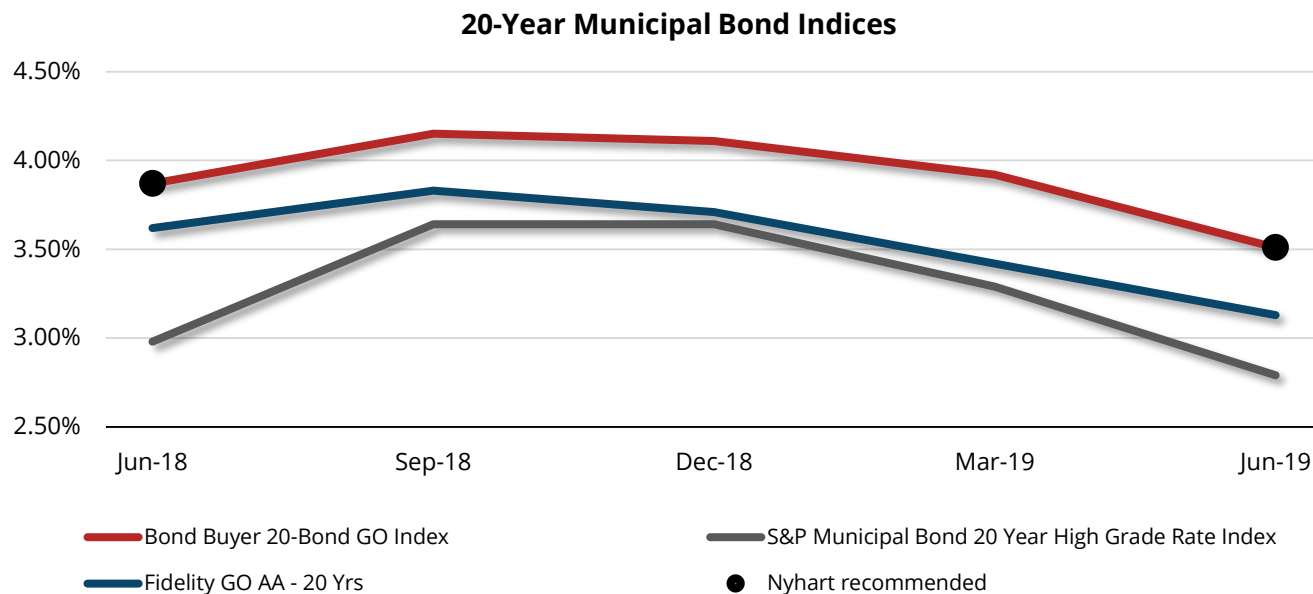
Discussion of Discount Rates (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Under GASB 75, the discount rate used in valuing OPEB liabilities for unfunded plans as of the Measurement Date must be based on a yield for 20-year tax-exempt general obligation municipal bonds with an average rating of AA /Aa or higher (or equivalent quality on another rating scale).

For the current valuation, the discount rate was selected from the range of indices as shown in the table below, where the range is given as the spread between the lowest and highest rate shown.

	Bond Buyer Go 20-Bond Municipal Bond Index	S&P Municipal Bond 20-Year High Grade Rate Index	Fidelity 20-Year Go Municipal Bond Index	Nyhart Range	Actual Discount Rate Used
Yield as of July 1, 2018	3.87%	2.98%	3.62%	2.98% - 3.87%	3.87%
Yield as of June 30, 2019	3.51%	2.79%	3.13%	2.79% - 3.51%	3.51%





Summary of Plan Participants (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Active Employees

<i>Actives with coverage</i>	<i>Single</i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>	
CDHP 1	22	51	73	54.0	8.0	\$	N/A
CDHP Wellness		6	6	51.7	10.3	\$	N/A
ISP Optional	8	26	34	63.4	13.5	\$	N/A
Total actives with coverage	30	83	113	56.7	9.8	\$	N/A

<i>Actives without coverage</i>			<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>	
Total actives without coverage			36	58.1	9.8	\$	N/A

For active employees who currently have no coverage, 40% of them are assumed to elect coverage after meeting PERF eligibility requirement. They have been included in the GASB valuation.



Summary of Plan Participants (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Active Age-Service Distribution

Age	Years of Service										Total	
	< 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up		
Under 25												0
25 to 29	4											4
30 to 34	1	1	1									3
35 to 39	4	2	3									9
40 to 44	2	6	3									11
45 to 49	2	6	7	3	1							19
50 to 54	1	6	2	4	1							14
55 to 59	4	8	4	2	1	1	1					21
60 to 64	1	6	6	1	1	4	2	1				22
65 to 69	3	7	1	4		2	3	1	1			22
70 & up		1	5	6	2	3	2	3	1	1		24
Total	22	43	32	20	6	10	8	5	2	1		149



Summary of Plan Participants (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Summary of Plan Participants - Retirees

<i>Retirees with coverage</i>	<i>Single</i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>
Traditional PPO	8	13	21	78.0
CDHP 1		3	3	59.1
CDHP 2	1	2	3	62.6
ISP Optional	2	5	7	77.8
Total retirees with coverage	11	23	34	74.9

Of those shown above, 26 retirees (21 on the PPO plan, 2 on the CDHP 1 plan, and 3 on the CDHP 2 plan) retired prior to June 1, 2007 and are eligible to receive lifetime health coverage.

Retiree Age Distribution

<i>Age</i>	<i>Retirees</i>
< 45	
45 to 49	
50 to 54	
55 to 59	4
60 to 64	4
65 to 69	3
70 to 74	5
75 to 79	5
80 to 84	7
85 to 89	5
90 & up	1
Total	34



Substantive Plan Provisions (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Eligibility

Legislators are eligible for retiree health care coverage once they have 8 years of service (or 4 sessions). Legislators who retired prior to June 1, 2007 are eligible for retiree health care coverage for lifetime. Legislators who retired on/after June 1, 2007 are eligible for retiree health care coverage to age 65.

Spouse Coverage

Surviving spouse coverage continues for after the death of the retiree for legislators who retired prior to June 1, 2007. Surviving spouse coverage continues after the death of the retiree to age 65 for legislators who retired on/after June 1, 2007.

State Explicit Subsidy

The State contributes various percentages of the premium rates for grandfathered current retirees. There is no State explicit subsidy for future retirees.

Retiree Contributions

Retirees pay the full cost of the retiree health care coverage. A limited group of grandfathered retirees receive explicitly subsidized health coverage. Any participants currently enrolled in the Indiana State Police (ISP) plans will receive the same retiree health benefits as a regular ISP retiree.

Medical Benefit

The same benefit options are available to retirees as active employees. All health plans are self-insured. The 2020 monthly premium rates by plan for non-tobacco users are as shown below (for those enrolled in State plans only):

Plans	Single	Family
CDHP 1	\$ 542.36	\$ 1,636.05
CDHP 2	\$ 598.74	\$ 1,795.65
CDHP Wellness	\$ 511.16	\$ 1,542.45
Traditional PPO	\$ 778.14	\$ 2,334.50

Dental and Vision Benefits

There is no GASB liability generated for dental and vision benefits for those retiring on/after June 1, 2007, as they pay the full cost for these benefits. Grandfathered retirees receive free dental benefits and subsidized vision benefits. The 2020 monthly premium rates for dental and vision benefits are as shown below:

Plans	Single	Family
Dental	\$ 25.35	\$ 66.56
Vision	\$ 4.68	\$ 11.44



Substantive Plan Provisions (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Senate Enrolled Act 501

Purpose

Senate Enrolled Act 501 establishes a retirement medical benefits account for elected officers, appointed officers, and employees of the executive, legislative, and judicial branches of state government to pay for participants' medical expenses after retirement.

Eligibility

A participant who:

- a. Is eligible for and has applied to receive a normal, unreduced or disability retirement benefit under PERF; or
- b. Has completed at least 10 years of service as an elected or appointed officer; or
- c. Has completed at least 15 years of service with the state for an employee

is entitled to receive a benefit from this account.

Annual State Contributions

The bill requires the state to make annual contributions to the account based on the following schedule:

Employee's Age	Annual State Contributions
Less than 30	\$ 500
At least 30 but less than 40	\$ 800
At least 40 but less than 50	\$ 1,100
At least 50	\$ 1,400

Bonus Contributions

An additional bonus contribution is to be made upon a participant's retirement with normal unreduced benefits if the retirement occurs between July 1, 2007 and July 1, 2017, and the retiree on the last day of service has completed at least 15 years of service or 10 years of service as an elected or appointed officer.

The additional bonus contribution amount is one thousand dollars (\$1,000) multiplied by the participant's years of service (rounded down to the nearest whole year).

Surviving Spouse

Surviving spouse or IRS dependent of a retired participant is allowed to receive the benefit from this account. Amounts credited to a retired participant are forfeited if the participant dies without a surviving spouse or IRS dependent.



Substantive Plan Provisions (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Senate Enrolled Act 501

GASB 74/75 Impact

The Senate Enrolled Act 501 plan is considered a defined contribution individual account for GASB 74/75 purposes and has no unfunded liabilities. The employer subsidy is defined in terms of an annual contribution to an individual account. Plan assets are maintained in a Trust Fund. All benefits and expenses in administering the Plan will be paid from the Fund. Money in the Fund may not be transferred, assigned, or otherwise removed from the Fund by the state board of finance, the Agency or any other state agency, and does not revert to the state general fund at the end of any state fiscal year.

The presence of this individual-account is expected to increase the percentage of future retirees electing to continue health coverage under the State plan. As a result, the health coverage election rate assumption has been set at 40% for retirements occurring after employees have met the minimum eligibility to use his/her individual account.

The Retirement Medical Benefits Account Trust Fund consists of cigarette tax revenues deposited in the fund under IC 6-7-1-28.1(7) and other appropriations, revenues, or transfers to the trust fund under IC 4-12-1. Beginning on July 1, 2012, these cigarette tax revenues are temporarily redirected to the General Fund per HEA 1001 (2011) in order to recover prior General Fund overpayments to the plan. Beginning on July 1, 2014, cigarette tax revenues will once again be deposited directly to the trust fund. The plan benefits satisfy the condition of being a defined contribution OPEB benefit and by definition, there is no unfunded liability.



Actuarial Assumptions and Methods (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Measurement Date	June 30, 2019										
Actuarial Valuation Date	June 30, 2019 with no adjustments to get to the June 30, 2019 measurement date. Liabilities as of July 1, 2018 are based on an actuarial valuation date of July 1, 2017 projected to July 1, 2018 on a “no loss / no gain” basis.										
Discount Rate	3.87% as of July 1, 2018 and 3.51% as of June 30, 2019 for accounting disclosure purposes; refer to the Discussion of Discount Rates section for more information on selection of the discount rate.										
Inflation Rate	2.25%										
Cost Method	<p>Allocation of Actuarial Present Value of Future Benefits for services prior and after the Measurement Date was determined using Entry Age Normal Level % of Salary method where:</p> <ul style="list-style-type: none">• service Cost for each individual participant, payable from date of employment to date of retirement, is sufficient to pay for the participant’s benefit at retirement; and• annual Service Cost is a constant percentage of the participant’s salary that is assumed to increase according to the Payroll Growth.										
Salary Scale	2.25% for general wage inflation plus the following merit and productivity increases which are based on the assumption used in the Indiana Public Retirement System (INPRS) actuarial valuation as of June 30, 2018.										
	<table><thead><tr><th>Age</th><th>General</th></tr></thead><tbody><tr><td>20</td><td>2.00%</td></tr><tr><td>30</td><td>2.00%</td></tr><tr><td>40</td><td>1.50%</td></tr><tr><td>50</td><td>1.00%</td></tr></tbody></table>	Age	General	20	2.00%	30	2.00%	40	1.50%	50	1.00%
Age	General										
20	2.00%										
30	2.00%										
40	1.50%										
50	1.00%										
Census Data	Census data for was provided by the State and it was collected as of June 30, 2019. We have reviewed it for reasonableness and no material modifications were made to the census data.										
Data Assumption	The State has separate rates for tobacco and non-tobacco users, however these rates are not enforced for retired users. All retirees contribute the non-tobacco rates.										



Actuarial Assumptions and Methods (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Contribution Funding Policy

Pay-as-you-go cash basis

Mortality

Pre and post-retirement mortality rates are based on SS-2012 Employee and Annuitant Mortality Table fully generational using SSA scale

Withdrawal Rate

None

Disability

None

Retirement Rate

Annual retirement rates by group are as shown below.

YOS	House	Senate
<6	0%	0%
6	0%	5%
8	10%	5%
12	0%	20%
14	10%	0%
16	20%	20%
20	0%	25%
22	10%	0%
24	20%	10%
28	0%	10%
30	10%	0%
32	100%	100%

100% retirement at age 70 is assumed for House members with at least 6 year of service and Senate members with at least 8 years of service.



Actuarial Assumptions and Methods (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Health Care Coverage Election Rate

Active Employees

Actives with Current Health Coverage

15% of employees are assumed to elect coverage at retirement. Once the employees have met the PERF eligibility for normal, unreduced or a disability pension, the election rate increases to 40% due to the presence of the Senate Enrolled Act 501 account balance.

PERF eligibility requirement is the earlier of:

- a. Age 55 with 85 points
- b. Age 60 with 15 years of service
- c. Age 65 with 10 years of service

Actives without Current Health Coverage

40% of employees are assumed to elect coverage at retirement after meeting the PERF retirement eligibility. They are assumed to elect the CDHP 1 plan.

Inactive Employees

Based on actual data.

Spousal Coverage

100% of employees are assumed to be married upon retirement. Husbands are assumed to be three years older than wives.

Spousal coverage for current retirees is based on actual data.



Actuarial Assumptions and Methods (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Per Capita Costs

For those enrolled in the State plans, annual per capita costs are based on medical and prescription drug claims and enrollment data for the 24-month period ending May 31, 2019 projected to 2019/20 plan year and includes administrative expenses effective on January 1, 2019 projected to 2020 using 3% trend. For those enrolled in the ISP plan, annual per capita costs are based on medical and prescription drug claims and enrollment data for the 24-month period ending May 31, 2019 projected to 2019/20 plan year and includes administrative expenses effective on January 1, 2020. The per capita costs were actuarially increased to a retiree-basis using health index factors and enrollment by plan. The costs are assumed to increase with health care trend rates.

Age	Trad PPO	CDHP 1	CDHP 2
50 - 54	\$ 15,500	\$ 7,800	\$ 12,800
55 - 59	\$ 18,600	\$ 9,400	\$ 15,400
60 - 64	\$ 23,100	\$ 11,700	\$ 19,100
65 - 69	\$ 6,500	\$ 3,300	\$ 5,400
70 - 74	\$ 7,700	\$ 3,900	\$ 6,400
75+	\$ 9,000	\$ 4,500	\$ 7,400

Age	CDHP Wellness	ISP*
50 - 54	\$ 7,700	\$ 8,749
55 - 59	\$ 9,200	\$ 10,349
60 - 64	\$ 11,400	\$ 12,649
65 - 69	\$ 3,200	\$ 2,425
70 - 74	\$ 3,800	\$ 2,425
75+	\$ 4,400	\$ 2,425

The per capita costs represent the cost of coverage for a retiree-only population.

Actuarial standards require the recognition of higher inherent costs for a retired population versus an active population.

* ISP per capita costs above include dental and vision costs. ISP post-65 costs are assumed to be equal to the premium rate of the Medicare Advantage plan and do not include dental and vision costs. Post-65 ISP retirees are also assumed to receive the ISP's HRA benefit, which is \$74.92 per month effective January 1, 2020.



Actuarial Assumptions and Methods (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Health Care Trend Rates

FYE	Medical / Rx
2020	8.0%
2021	7.5%
2022	7.0%
2023	6.5%
2024	6.0%
2025	5.5%
2026	5.0%
2027+	4.5%

The initial trend rate was based on a combination of employer history, national trend surveys, and professional judgment.

The ultimate trend rate was selected based on historical medical CPI information.

Dental and vision costs for those enrolled in the ISP plan are assumed to increase by 3.0% in the future.

Retiree Contributions

Retiree contributions for medical and prescription drugs are assumed to increase with Health Care Trend Rates.

Explicit Subsidy

The difference between (a) the premium rate approved by the State and (b) the retiree contribution. Below is an example of the monthly explicit subsidies for a retiree enrolled in CDHP 1 plan with non-tobacco use incentive.

	Premium Rate	Retiree Contribution	Explicit Subsidy
	A	B	C = A - B
Retiree	\$ 542.36	\$ 542.36	\$ 0.00
Spouse	\$ 1,093.69	\$ 1,093.69	\$ 0.00



Actuarial Assumptions and Methods (LEGISLATURE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Implicit Age Subsidy

The difference between (a) the per capita cost as determined by Nyhart and (b) the premium rate approved by the State. Below is an example of the monthly implicit subsidies for a retiree age 62 with spouse of the same age enrolled in CDHP 1 plan with non-tobacco incentive.

	Per Capita Cost	Premium Rate*	Implicit Age Subsidy
	A	B	C = A - B
Retiree	\$ 975.00	\$ 542.36	\$ 432.64
Spouse	\$ 975.00	\$ 975.00	\$ 0.00

All employers that utilize premium rates based on blended active/retiree claims experience will have an implicit subsidy. There is an exception for Medicare plans using a true community-rated premium rate.

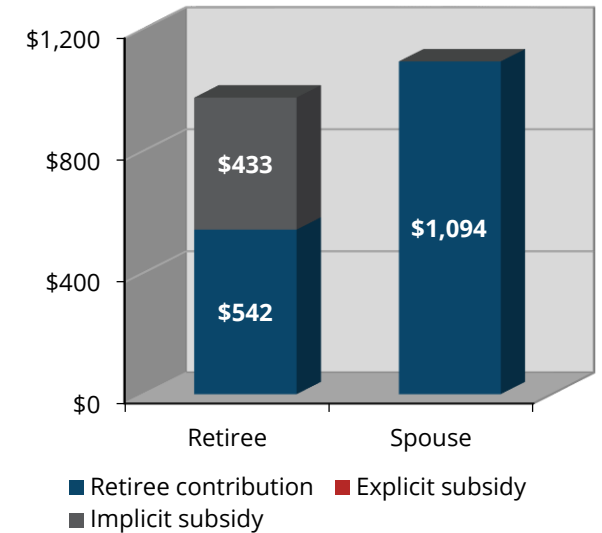
* Spouse premium rate has been limited to the per capita cost.

GASB Subsidy Breakdown

Below is a breakdown of the GASB 74/75 monthly total cost for a retiree age 62 and his spouse of the same age enrolled in CDHP 1 plan with non-tobacco incentive.

	Retiree	Spouse
Retiree contribution	\$ 542.36	\$ 1,093.69
Explicit subsidy	\$ 0.00	\$ 0.00
Implicit subsidy	\$ 432.64	\$ 0.00
Total monthly cost	\$ 975.00	\$ 1,093.69

GASB Subsidy Breakdown



SECTION D - INDIANA STATE POLICE



GASB Disclosures (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Schedule of Changes in Net OPEB Liability and Related Ratios

OPEB Liability	FY 2018/19	FY 2017/18
Total OPEB Liability		
Total OPEB liability – beginning of year	\$ 324,517,099	\$ 539,736,386
Service cost	8,531,267	17,810,791
Interest	12,777,709	19,725,281
Changes of benefit terms	3,253,798	(196,573,638)
Changes in assumptions	(66,154,178)	(27,946,460)
Differences between expected and actual experience	(78,675,348)	(21,241,592)
Benefit payments	(5,805,104)	(6,993,669)
Net change in total OPEB liability	\$ (126,071,856)	\$ (215,219,287)
Total OPEB liability – end of year	\$ 198,445,243	\$ 324,517,099
Plan Fiduciary Net Position		
Plan fiduciary net position – beginning of year	\$ 117,362,956	\$ 97,322,900
Contributions – employer	23,936,818	25,813,525
Contributions – active employees	857,420	404,060
Net investment income	2,108,792	1,422,502
Benefit payments	(5,805,104)	(6,993,669)
Trust administrative expenses	(491,879)	(606,362)
Net change in plan fiduciary net position	\$ 20,606,047	\$ 20,040,056
Plan fiduciary net position – end of year	\$ 137,969,003	\$ 117,362,956
Net OPEB Liability – end of year	\$ 60,476,240	\$ 207,154,143
Plan fiduciary net position as % of total OPEB liability	69.5%	36.2%
Covered employee payroll	\$ 110,664,770	\$ 98,338,193
Net OPEB liability as % of covered payroll	54.6%	210.7%



GASB Disclosures (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Schedule of Employer Contributions

The Actuarially Determined Contributions (ADC) shown below prior to FY 2016/17 are based on the Annual Required Contribution (ARC) calculated in prior GASB 45 actuarial valuations as shown in the Plan Sponsor financial statements.

	<i>FY 2018/19</i>		<i>FY 2017/18</i>		<i>FY 2016/17</i>		<i>FY 2015/16</i>		<i>FY 2014/15</i>	
Actuarially Determined Contribution (ADC)	\$	18,356,134 ⁹	\$	35,041,558	\$	34,980,369	\$	29,064,071	\$	26,029,514
Contributions in relation to the ADC ¹⁰		23,936,818		25,813,525		26,871,267		25,319,778		24,834,550
Contribution deficiency / (excess)	\$	(5,580,684)	\$	9,228,033	\$	8,109,102	\$	3,744,293	\$	1,194,964
Covered employee payroll	\$	110,664,770	\$	98,338,193	\$	96,174,272	\$	92,130,000	\$	93,630,000
Contribution as a % of covered employee payroll		21.6%		26.2%		27.9%		27.5%		26.5%
	<i>FY 2013/14</i>		<i>FY 2012/13</i>		<i>FY 2011/12</i>		<i>FY 2010/11</i>		<i>FY 2009/10</i>	
Actuarially Determined Contribution (ADC)	\$	26,029,514	\$	27,418,949	\$	27,793,932	\$	30,154,522	\$	42,105,662
Contributions in relation to the ADC ⁴		24,834,550		11,683,966		18,626,963		13,786,787		9,008,600
Contribution deficiency / (excess)	\$	1,194,964	\$	15,734,983	\$	9,166,969	\$	16,367,735	\$	33,097,062
Covered employee payroll	\$	93,630,000	\$	87,040,000	\$	87,040,000	\$	N/A	\$	N/A
Contribution as a % of covered employee payroll		26.5%		13.4%		21.4%		N/A		N/A

⁹ Refer to the Actuarially Determined Contributions section for the calculation details.

¹⁰ Includes employer contribution for pay-go cost and (any) pre-funding contributions deposited into the OPEB Trust.



GASB Disclosures (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

OPEB Expense

<i>OPEB Expense</i>	<i>FY 2018/19</i>	<i>FY 2017/18</i>
Discount rate as of beginning of fiscal year	3.87%	3.56%
Discount rate as of end of fiscal year	6.20%	3.87%
Service cost	\$ 8,531,267	\$ 17,810,791
Interest	12,777,709	19,725,281
Changes of benefit terms	3,253,798	(196,573,638)
Projected earnings on OPEB plan investments	(4,112,473)	(3,463,111)
Reduction for contributions from active employees	(857,420)	(404,060)
OPEB plan administrative expenses	491,879	606,362
Current period recognition of deferred outflows / (inflows) of resources		
Differences between expected and actual experience	\$ (14,273,848)	\$ (3,034,513)
Changes in assumptions	(13,442,948)	(3,992,351)
Net difference between projected and actual earnings on OPEB plan investments	808,858	408,122
Total current period recognition	\$ (26,907,938)	\$ (6,618,742)
Total OPEB expense	\$ (6,823,178)	\$ (168,917,117)



GASB Disclosures (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Deferred Outflows / (Inflows) of Resources

Deferred Outflows / (Inflows) of Resources represents the following items that have not been recognized in the OPEB Expense:

4. Differences between expected and actual experience of the OPEB plan
5. Changes of assumptions
6. Difference between projected and actual earnings in OPEB plan investments

The initial amortization period for the first two items noted above is based on the average future service to retirement while the difference between projected and actual earnings in OPEB plan investment is amortized over five years. All balances are amortized linearly on a principal only basis and new bases will be created annually for each of the item above.

<i>Differences between expected and actual experience for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2019</i>
June 30, 2018	\$ (21,241,592)	7	\$ (3,034,513)	\$ (15,172,566)
June 30, 2019	\$ (78,675,348)	7	\$ (11,239,335)	\$ (67,436,013)

<i>Changes in assumptions for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2019</i>
June 30, 2018	\$ (27,946,460)	7	\$ (3,992,351)	\$ (19,961,758)
June 30, 2019	\$ (66,154,178)	7	\$ (9,450,597)	\$ (56,703,581)

<i>Net difference between projected and actual earnings in OPEB plan investments for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2019</i>
June 30, 2018	\$ 2,040,609	5	\$ 408,122	\$ 1,224,365
June 30, 2019	\$ 2,003,681	5	\$ 400,736	\$ 1,602,945



GASB Disclosures (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Deferred Outflows / (Inflows) of Resources - Continued

<i>As of fiscal year ending June 30, 2019</i>	<i>Deferred Outflows</i>	<i>Deferred Inflows</i>
Differences between expected and actual experience	\$ 0	\$ (82,608,579)
Changes in assumptions	0	(76,665,339)
Net difference between projected and actual earnings in OPEB plan investments	2,827,310	0
Total	\$ 2,827,310	\$ (159,273,918)

Annual Amortization of Deferred Outflows / (Inflows)

The balances as of June 30, 2019 of the deferred outflows / (inflows) of resources will be recognized in OPEB expense in the future fiscal years as noted below.

<i>FYE</i>	<i>Balance</i>
2020	\$ (26,907,938)
2021	\$ (26,907,938)
2022	\$ (26,907,939)
2023	\$ (27,316,059)
2024	\$ (27,716,800)
Thereafter	\$ (20,689,934)



GASB Disclosures (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Sensitivity Results

The following presents the net OPEB liability as of June 30, 2019, calculated using the discount rate assumed and what it would be using a 1% higher and 1% lower discount rate.

- The current discount rate is 6.20%.
- The 1% decrease in discount rate would be 5.20%.
- The 1% increase in discount rate would be 7.20%.

<i>As of June 30, 2019</i>	<i>Net OPEB Liability</i>	
1% Decrease	\$	85,664,016
Current Discount Rate	\$	60,476,240
1% Increase	\$	39,138,443

The following presents the net OPEB liability as of June 30, 2019, using the health care trend rates assumed and what it would be using 1% higher and 1% lower health care trend rates.

- The current health care trend rate starts at an initial rate of 8.0% decreasing by 0.5% annually to an ultimate rate of 4.5%.
- The 1% decrease in health care trend rates would assume an initial rate of 7.0% decreasing by 0.5% annually to an ultimate rate of 3.5%.
- The 1% increase in health care trend rates would assume an initial rate of 9.0% decreasing by 0.5% annually to an ultimate rate of 5.5%.

<i>As of June 30, 2019</i>	<i>Net OPEB Liability</i>	
1% Decrease	\$	37,992,246
Current Health Care Trend Rates	\$	60,476,240
1% Increase	\$	87,374,656



Asset Information (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Asset Information

<i>Asset Breakdown</i>	<i>FY 2017/18</i>	<i>FY 2018/19</i>
Assets		
Cash and cash equivalents	\$ 6,557,086	\$ 35,888,888
Securities lending cash collateral	0	0
Total cash	\$ 6,557,086	\$ 35,888,888
Receivables		
Contributions	\$ 0	\$ 0
Accrued interest	252,777	739,216
Total receivables	\$ 252,777	\$ 739,216
Investments		
Fixed income	\$ 111,612,692	\$ 101,923,391
Equities	0	0
Mutual Funds	0	0
Other	0	0
Total investments	\$ 111,612,692	\$ 101,923,391
Total assets	\$ 118,422,555	\$ 138,551,495
Liabilities		
Payables		
Investment management fees	\$ 0	\$ 582,492
Benefits	(1,059,599)	0
Total liabilities	\$ (1,059,599)	\$ 582,492
Net position restricted to OPEB	\$ 117,362,956	\$ 137,969,003



Asset Information (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Asset Information

<i>Asset Reconciliation</i>	<i>FY 2017/18</i>	<i>FY 2018/19</i>
Additions		
Contributions received		
Employer	\$ 25,813,525	\$ 23,936,818
Active Employees	404,060	857,420
Total contributions	\$ 26,217,585	\$ 24,794,238
Investment income		
Net increase in fair value of investments	\$ 1,422,502	\$ 2,108,792
Interests and dividends	0	0
Investment expense, other than from securities lending	0	0
Securities lending income	0	0
Securities lending expense	0	0
Net investment income	\$ 1,422,502	\$ 2,108,792
Total additions	\$ 27,640,087	\$ 26,903,030
Deductions		
Benefit payments (net of retiree contributions)	\$ (6,993,669)	\$ (5,805,104)
Administrative expenses	(606,362)	(491,879)
Other	0	0
Total deductions	\$ (7,600,031)	\$ (6,296,983)
Net increase in net position	\$ 20,040,056	\$ 20,606,047
Net position restricted to OPEB		
Beginning of year	97,322,900	117,362,956
End of year	\$ 117,362,956	\$ 137,969,003



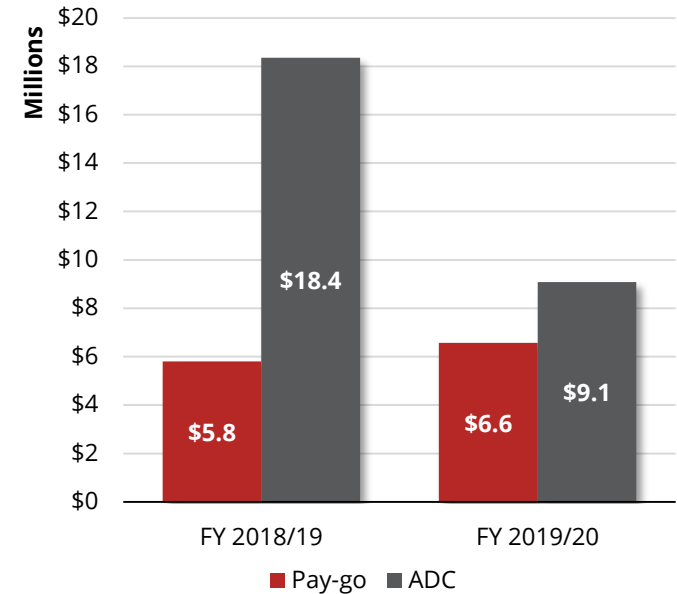
Actuarially Determined Contributions (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

The Actuarially Determined Contributions calculated below are recommended target contributions and assumes that the Plan Sponsor has the ability to contribute these amounts on an annual basis. The Plan Sponsor has the responsibility to decide how much it should contribute after considering its other needs and the OPEB participants' needs.

	FY 2018/19	FY 2019/20
Discount rate	4.50%	6.20%
Payroll growth factor used for amortization	N/A	N/A
Actuarial cost method	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary
Amortization type	Level Dollar	Level Dollar
Amortization period	28 years	27 years
Actuarial accrued liability (AAL) – beginning of year	\$ 298,314,722	\$ 198,445,242
Actuarial value of assets – beginning of year	(117,362,956)	(137,969,003)
Unfunded AAL – beginning of year	\$ 180,951,766	\$ 60,476,239
Normal Cost ¹¹	\$ 6,566,442	\$ 4,153,530
Amortization of UAAL	10,999,236	4,397,224
Total normal cost plus amortization	\$ 17,565,678	\$ 8,550,754
Interest to the end of year	790,456	530,147
Actuarially Determined Contribution – Preliminary	\$ 18,356,134	\$ 9,080,901
Expected benefit payments ¹²	5,805,104	6,563,862
Actuarially Determined Contribution – Final¹³	\$ 18,356,134	\$ 9,080,901

Cash vs Accrual Accounting



Actuarially Determined Contribution (ADC) is the target or recommended contribution to a defined benefit OPEB plan, which if paid on an ongoing basis, will provide sufficient resources to fund future costs for services to be earned and liabilities attributed to past services. This is typically higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

¹¹ Reduced for active employee contributions, which were \$857,420 for FY 2018/19 and assumed to be \$878,856 for FY 2019/20 (based on FY 2018/19 contribution increased by total payroll growth assumption of 2.5%).

¹² Actual for FY 2018/19

¹³ Set to be the greater of the preliminary ADC and expected benefit payments.



Projection of GASB Results (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Projection of GASB Results

The Total OPEB Liability (TOL) is expected to change on an annual basis as a result of expected and unexpected events. Under normal circumstances, it is generally expected to have a net increase each year. Below is a list of the most common events affecting the total OPEB liability and whether they increase or decrease the liability.

Expected Events

- Increases in TOL due to additional benefit accruals as employees continue to earn service each year
- Increases in TOL due to interest as the employees and retirees age
- Decreases in TOL due to benefit payments

Unexpected Events

- Increases in TOL when actual premium rates increase more than expected. A liability decrease occurs if the reverse happens.
- Increases in TOL when more new retirements occur than expected or fewer terminations occur than anticipated. Liability decreases occur when the opposite outcomes happen.
- Increases or decreases in TOL depending on whether benefits are improved or reduced.

<i>Projection of Total OPEB Liability (TOL)</i>	<i>FY 2018/19</i>	<i>FY 2019/20</i>
TOL as of beginning of year	\$ 324,517,099	\$ 198,445,243
Normal cost as of beginning of year	8,531,267	5,032,384
Exp. benefit payments during the year	(5,805,104)	(6,563,862)
Interest adjustment to end of year	12,777,709	7,027,862
Exp. TOL as of end of year	\$ 340,020,971	\$ 203,941,627
Actuarial Loss/(Gain)	(141,575,728)	TBD
Actual TOL as of end of year	\$ 198,445,243	\$ TBD

<i>Projection of Actuarial Value of Assets (AVA)</i>	<i>FY 2018/19</i>	<i>FY 2019/20</i>
AVA as of beginning of year	\$ 117,362,956	\$ 137,969,003
Exp. employer contributions during the year ¹⁴	23,936,818	24,063,862
Exp. benefit payments during the year	(5,805,104)	(6,563,862)
Exp. investment income ¹⁵	4,112,473	9,093,705
Exp. Trust administrative expenses	(491,879)	(705,790)
Exp. Active employee contributions ¹⁶	857,420	878,856
Exp. AVA as of end of year	\$ 139,972,684	\$ 164,735,773
Differences between expected and actual experience	(2,003,681)	TBD
AVA as of end of year	\$ 137,969,003	\$ TBD

¹⁴ Employer contribution for 2018/19 is based on actual employer contribution made into the Trust. FY 2019/20 expected employer contribution is based on the expected pay-go cost plus the average Trust contribution in the past four years, rounded down to the nearest million.

¹⁵ Fiscal year 2018/19 expected investment income is calculated based on a 3.25% asset return and fiscal year 2019/20 expected investment income is calculation based on a 6.20% asset return.

¹⁶ Active employee contributions were \$857,420 for FY 2018/19 and assumed to be \$878,856 for FY 2019/20 (based on FY 2018/19 contribution increased by payroll growth assumption of 2.5%).



Employer Contribution Cash Flow Projections (INDIANA STATE POLICE)

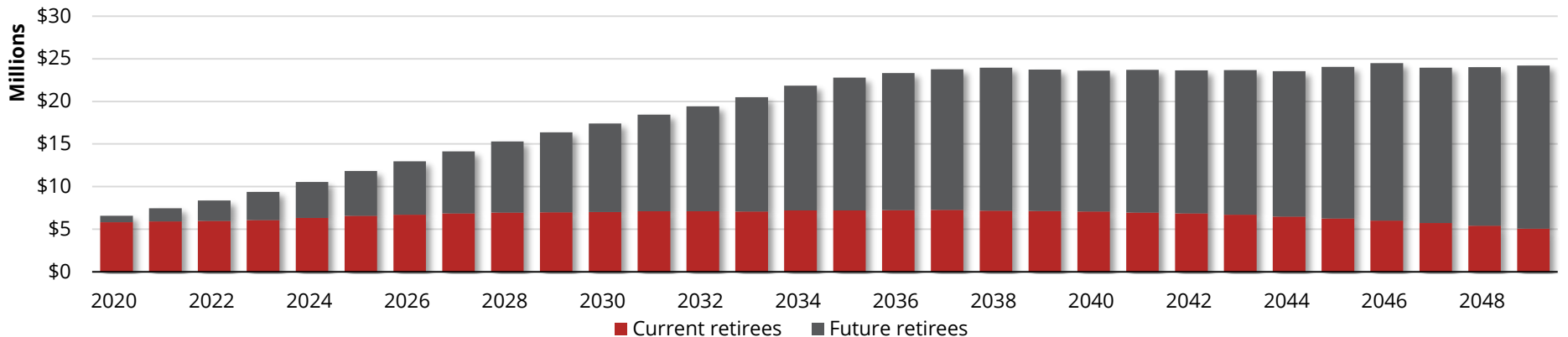
State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Projection of GASB Results

The below projections show the actuarially estimated employer-paid contributions for retiree health benefits for the next thirty years. Results are shown separately for a closed group of current / future retirees. These projections include explicit and implicit subsidies.

FYE	Current Retirees	Future Retirees ¹⁷	Total	FYE	Current Retirees	Future Retirees ¹⁶	Total	FYE	Current Retirees	Future Retirees ¹⁶	Total
2020	\$ 5,822,652	\$ 741,210	\$ 6,563,862	2030	\$ 7,001,186	\$ 10,397,824	\$ 17,399,010	2040	\$ 7,089,960	\$ 16,510,971	\$ 23,600,931
2021	\$ 5,914,465	\$ 1,544,907	\$ 7,459,372	2031	\$ 7,095,115	\$ 11,342,588	\$ 18,437,703	2041	\$ 6,965,909	\$ 16,724,689	\$ 23,690,598
2022	\$ 5,986,132	\$ 2,396,590	\$ 8,382,722	2032	\$ 7,114,472	\$ 12,318,663	\$ 19,433,135	2042	\$ 6,863,980	\$ 16,779,769	\$ 23,643,749
2023	\$ 6,083,420	\$ 3,306,380	\$ 9,389,800	2033	\$ 7,088,717	\$ 13,403,856	\$ 20,492,573	2043	\$ 6,692,460	\$ 16,969,021	\$ 23,661,481
2024	\$ 6,309,601	\$ 4,231,658	\$ 10,541,259	2034	\$ 7,191,093	\$ 14,655,620	\$ 21,846,713	2044	\$ 6,481,536	\$ 17,069,688	\$ 23,551,224
2025	\$ 6,573,164	\$ 5,248,969	\$ 11,822,133	2035	\$ 7,204,038	\$ 15,602,720	\$ 22,806,758	2045	\$ 6,265,144	\$ 17,773,769	\$ 24,038,913
2026	\$ 6,715,963	\$ 6,264,058	\$ 12,980,021	2036	\$ 7,231,395	\$ 16,081,399	\$ 23,312,794	2046	\$ 6,013,367	\$ 18,478,883	\$ 24,492,250
2027	\$ 6,864,118	\$ 7,267,632	\$ 14,131,750	2037	\$ 7,258,631	\$ 16,514,348	\$ 23,772,979	2047	\$ 5,727,534	\$ 18,240,334	\$ 23,967,868
2028	\$ 6,961,948	\$ 8,344,832	\$ 15,306,780	2038	\$ 7,183,785	\$ 16,774,040	\$ 23,957,825	2048	\$ 5,410,597	\$ 18,610,098	\$ 24,020,695
2029	\$ 6,979,023	\$ 9,375,939	\$ 16,354,962	2039	\$ 7,148,974	\$ 16,576,549	\$ 23,725,523	2049	\$ 5,066,909	\$ 19,130,829	\$ 24,197,738

Projected Employer Pay-go Cost



¹⁷ Projections for future retirees do not take into account future new hires.



Discussion of Discount Rates (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Under GASB 74, the discount rate used in valuing OPEB liabilities for funded plans as of the Measurement Date must be based on the long-term expected rate of return on OPEB plan investments that are expected to be used to finance future benefit payments to the extent that (a) they are sufficient to pay for the projected benefit payments and (b) the OPEB plan assets are invested using a strategy that will achieve that return. When the OPEB plan investments are insufficient to cover future benefit payments, a yield for 20-year tax-exempt general obligation municipal bonds with an average rating of AA /Aa or higher (or equivalent quality on another rating scale) must be used.

For the current valuation:

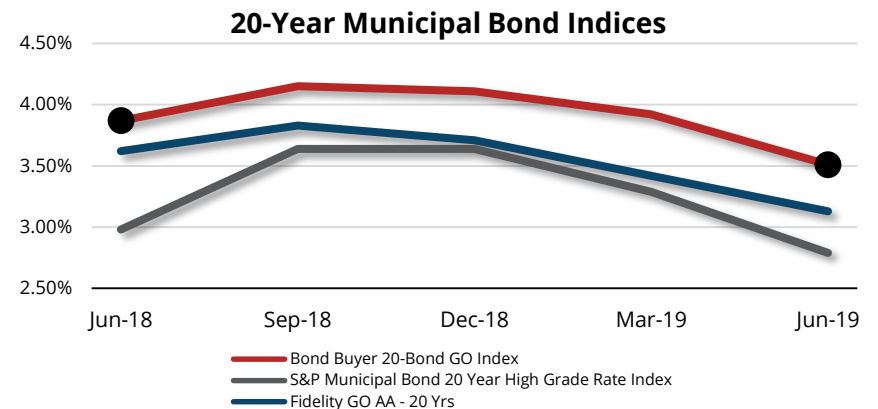
1. The long-term expected rate of return on OPEB plan investment is 6.20%. The expected future real rates of return as shown in the State of Indiana 2018 CAFR for the ISP Pension Plan are shown below. Inflation is expected to be 2.25%. The best estimates of arithmetic real rates of return for each major asset class included in the OPEB Plan's target asset allocation as of June 30, 2019 are summarized in the following table.

Asset Class	Target Allocation	L/T Expected Real ROR
Broad US Equity	29%	6.9%
Global ex-US Equity	13%	7.1%
Domestic Fixed	17%	2.6%
High Yield	5%	3.0%
Short Duration	4%	4.8%
Cash Equivalents	2%	5.1%
Hedge Funds	25%	5.8%
Real Estate	5%	2.3%

2. The discount rate used when the OPEB plan investments are insufficient to pay for future benefit payments are selected from the range of indices as shown in the table below, where the range is given as the spread between the lowest and highest rate shown.

Yield as of	July 1, 2018	June 30, 2019
Bond Buyer Go 20-Bond Municipal Bond Index	3.87%	3.51%
S&P Municipal Bond 20-Year High Grade Rate Index	2.98%	2.79%
Fidelity 20-Year Go Municipal Bond Index	3.62%	3.13%
Bond Index Range	2.98% - 3.87%	2.79% - 3.51%
Actual Discount Rate Used	3.87%	3.51%

3. The final equivalent single discount rate used for this year's valuation is 3.87% as of July 1, 2018 and 6.20% as of June 30, 2019, based on the expectation that the ISP will continue to make contributions equal to the benefit payments each year plus additional prefunding contributions of \$17.5 million per year (based on actual pre-funding contributions over the past four years) until the trust is sufficient to pay all future benefits.





Summary of Plan Participants (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Active Employees

<i>Actives with coverage</i>	<i>Single</i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>
Optional	609	1,079	1,688	43.3	15.4	\$ 110,664,770
Total actives with coverage	609	1,079	1,688	43.3	15.4	\$ 110,664,770

There are no active employees without coverage reported for Indiana State Police.

Active Age-Service Distribution

<i>Age</i>	<i>Years of Service</i>										<i>Total</i>	
	<i>< 1</i>	<i>1 to 4</i>	<i>5 to 9</i>	<i>10 to 14</i>	<i>15 to 19</i>	<i>20 to 24</i>	<i>25 to 29</i>	<i>30 to 34</i>	<i>35 to 39</i>	<i>40 & up</i>		
Under 25	45	29										74
25 to 29	40	124	29	1								194
30 to 34	15	47	77	44								183
35 to 39	7	9	32	144	13							205
40 to 44		16	17	74	82	37						226
45 to 49	1	7	7	42	63	189	13	1				323
50 to 54	3	6	5	14	18	70	70	27				213
55 to 59		10	8	4	8	21	21	63	6			141
60 to 64	2	7	7	5	8	10	7	16	27	10		99
65 to 69		2	3		2	5	2	2	3	8		27
70 & up						2				1		3
Total	113	257	185	328	194	334	113	109	36	19		1,688



Summary of Plan Participants (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Summary of Plan Participants – Retirees

<i>Retirees with coverage</i>	<i>Single</i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>
Basic without Medicare	20	27	47	60.7
Optional without Medicare	108	142	250	61.1
Basic with Medicare	50	40	90	79.0
Optional with Medicare	270	419	689	75.2
Total retirees with coverage	448	628	1,076	71.6

In addition to the above, there are 261 retirees who currently have no health coverage with ISP but they have life insurance coverage. They have been included in the GASB valuation.

Enrollments shown above as “without Medicare” includes all pre-65 retirees on each plan and any post-65 retirees who are not Medicare eligible. Enrollments shown as “with Medicare” include only post-65 retirees who are Medicare eligible.

Retiree Age Distribution¹⁸

<i>Age</i>	<i>Retirees</i>
< 45	3
45 to 49	8
50 to 54	24
55 to 59	75
60 to 64	166
65 to 69	187
70 to 74	209
75 to 79	192
80 to 84	130
85 to 89	58
90 & up	24
Total	1,076

¹⁸ Including retirees and surviving spouse beneficiaries who have health coverage only.



Substantive Plan Provisions (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Eligibility

Police officers and civilian employees employed by the Indiana State Police are eligible for retiree health care benefits at the earlier of:

- a. 25 years of service
- b. Age 55 with 85 points
- c. Age 60 with 15 years of service
- d. Age 65 with 10 years of service

Spouse Coverage

Surviving spouse coverage continues for life after the death of the member (retiree or active employee). The coverage is free for six months and then it reverts to single retiree coverage.

Surviving spouses receive free coverage for life after the death of a member in the line of duty.

Medical Benefit

The same benefit options are available to retirees as active employees. All health plans are self-insured.

The Basic Plan includes medical coverage only. The Optional Plan includes medical, dental, and vision coverage.

The monthly premium rates effective on January 1, 2020 (as determined by the Indiana State Police) for the plans are as shown below:

	Retiree Only	Retiree plus One Dependent
<u>Without Medicare</u>		
Basic Plan	\$ 457.73	\$ 611.28
Optional Plan	\$ 535.23	\$ 759.29
<u>With Medicare</u>		
Medicare Advantage	\$ 202.07	\$ 404.14

State Police Explicit Subsidy

None



Substantive Plan Provisions (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Retiree Contributions

Retirees pay the full cost of the retiree health care coverage as determined by the State Police. The breakdown of retiree contributions by benefit are as shown below.

<u>Without Medicare</u>	Retiree Only	Retiree plus One Dependent	Spouse Increment
Basic Plan	\$ 457.73	\$ 611.28	\$ 153.55
Optional Plan	\$ 535.23	\$ 759.29	\$ 224.06
<u>With Medicare</u>	Retiree Only	Retiree plus One Dependent	Spouse Increment
Medicare Advantage	\$ 202.07	\$ 404.14	\$ 202.07

HRA Benefit

Effective on January 1, 2019, all post-65 Medicare eligible retirees were removed from the ISP’s traditional health plan. They are covered under a Medicare Advantage Plan through Anthem and a Medicare Part D plan with premiums paid fully by the retiree. These members will now also be given a flat HRA contribution of \$74.92 per eligible person effective January 1, 2020 for life while participating in the Medicare Advantage plan. This will continue to be available to surviving spouses of deceased retirees. The aggregate HRA contribution for all members is capped at \$1 million annually going forward. For purposes of this valuation, the HRA contribution amount provided by ISP is not assumed to increase in the future.

All post-65 non-Medicare eligible retirees will continue to be covered under ISP’s traditional health plan.

All retirees (pre and post-Medicare eligible) will continue to have dental and vision coverage with premiums paid fully by the retiree.

Life Insurance

All current and future retired Police officers are eligible for life insurance benefits \$20,000 with premiums fully paid by the ISP.

Disability Benefit

Police officers who become long-term disabled receive free health care coverage during the disability period. When they meet the requirements for retiree health care benefits they will have to make the required retiree contributions.



Substantive Plan Provisions (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Senate Enrolled Act 501

Purpose

Senate Enrolled Act 501 establishes a retirement medical benefits account for elected officers, appointed officers, and employees of the executive, legislative, and judicial branches of state government to pay for participants' medical expenses after retirement.

Effective July 1, 2011 employees of Indiana State Police, other than those who waived coverage under a common and unified plan of self-insurance provided for under IC 5-10-8-6 before July 1, 2011, are not eligible for the Senate Enrolled Act 501 retirement medical benefits account.



Actuarial Assumptions and Methods (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Measurement Date	June 30, 2019
Actuarial Valuation Date	June 30, 2019 with no adjustments to get to the June 30, 2019 measurement date. Liabilities as of July 1, 2018 are based on an actuarial valuation date of July 1, 2017 projected to July 1, 2018 on a “no loss / no gain” basis.
Discount Rate	3.87% as of July 1, 2018 and 6.20% as of June 30, 2019 for accounting disclosure purposes; refer to the Discussion of Discount Rates section for more information on selection of the discount rate. 4.50% as of July 1, 2018 and 6.20% as of June 30, 2019 for calculating Actuarially Determined Contribution
Inflation Rate	2.25%
Cost Method	Allocation of Actuarial Present Value of Future Benefits for services prior and after the Measurement Date was determined using Entry Age Normal Level % of Salary method where: <ul style="list-style-type: none">• service Cost for each individual participant, payable from date of employment to date of retirement, is sufficient to pay for the participant’s benefit at retirement; and• annual Service Cost is a constant percentage of the participant’s salary that is assumed to increase according to the Payroll Growth.
Salary Scale	2.25% for general wage inflation plus 0.25% for merit and productivity increases.
Census Data	Census data was provided by the State and it was collected as of June 30, 2019. We have reviewed it for reasonableness and have made the following adjustment to the census data: <ul style="list-style-type: none">• Participants who were found in both State Personnel and ISP census data are included in the ISP census data for valuation purposes. Participants who were found in both Legislature and ISP census data are included in the Legislature census data for valuation purposes. These participants are eligible to receive retiree health care coverage through ISP once they meet the eligibility requirements.• For participant whose date of hire provided in this year’s census data was more than one year different than the date provided in prior years, the earlier of the two dates was used for conservatism.• Only employees and retirees who were identified by the ISP as not being eligible for Medicare assumed to be ineligible for Medicare for life. Pre-65 retirees who were identified as not being Medicare eligible in the past were assumed not to be Medicare eligible. All other participants are assumed to be eligible for Medicare.



Actuarial Assumptions and Methods (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Contribution Funding Policy

Indiana State Police has established a 401(h) account and Section 115 Trust for the purpose of funding retiree medical benefits since FYE June 30, 2011. Contributions to the 401(h) account and Section 115 Trust will be made from the following sources:

1. Medicare Part D retiree drug subsidy reimbursement
2. Excess Long-Term Disability (LTD) fund
3. A percentage of retiree premiums according to the following schedule:
 - a. Starting January 1, 2012 through June 30, 2014: 0%
 - b. July 1, 2014 through June 30, 2016: 25%
 - c. July 1, 2016 through June 30, 2018: 50%
 - d. July 1, 2018 onwards: 100%
4. State contributions for ISP active employees in accordance with SEA 501
5. Discretionary contributions from ISP Healthcare Fund up to \$1 million

Additionally, active employees will contribute \$20 per paycheck towards the 401(h) Trust account.

At this time, the ISP new funding policy is expected to continue for the foreseeable future.

Mortality

SS-2012 Total Dataset Mortality Table with blue collar adjustment fully generational using SSA scale

Withdrawal Rate

Assumption used to project terminations (voluntary and involuntary) prior to meeting minimum retirement eligibility for retiree health care coverage.

No withdrawal rates are assumed for police officers in the pre-1987 plan.

For police officers in the 1987 pension plan, the annual withdrawal rates are assumed to be 2% prior to age 37. For ages 37 and older the annual withdrawal rates follow the Saranson T-1 table.

Disability

Sample rates are as shown below.

Age	Rate
45	0.54%
50	0.91%
55	1.51%
60	2.44%



Actuarial Assumptions and Methods (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Retirement Rate

Annual retirement rates were based on ISP's 2011 experience study.

YOS	1987 Plan ¹⁹	Age	Pre-1987 Plan
25	15.0%	45	10.0%
26	12.5%	46 - 54	7.5%
27	10.0%	55	10.0%
28 - 29	7.5%	56	12.5%
30	10.0%	57	15.0%
31	12.5%	58	20.0%
32	15.0%	59 - 64	40.0%
33	40.0%	65+	100.0%
34+	27.5%		

Health Care Trend Rates

FYE	Medical / Rx	FYE	Medical / Rx
2020	8.0%	2024	6.0%
2021	7.5%	2025	5.5%
2022	7.0%	2026	5.0%
2023	6.5%	2027+	4.5%

The initial trend rate was based on a combination of employer history, national trend surveys, and professional judgment.

The ultimate trend rate was selected based on historical medical CPI information.

Dental and vision costs are assumed to increase by 3.0% in the future.

Retiree Contributions

Retiree contributions are assumed to increase with health care trend rates.

Health Care Coverage Election Rate

Active Employees

100% of active employees with current coverage are assumed to elect coverage at retirement. Active employees with no current coverage are assumed not to elect coverage at retirement.

Inactive Employees

Based on actual data

¹⁹ 100% retirement is assumed for all participants upon reaching age 65.



Actuarial Assumptions and Methods (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Spousal Coverage

80% of male and 40% of female employees are assumed to be married upon retirement. Husbands are assumed to be three years older than wives.

Spousal coverage for current retirees is based on actual data.

Per Capita Costs

Annual per capita costs are based on medical and prescription drug claims and enrollment data for the 24-month period ending May 31, 2019 projected to 2019/20 plan year and includes administrative expenses effective on January 1, 2020. The per capita costs were actuarially increased to a retiree-basis using health index factors and enrollment. These costs are assumed to increase with health care trend rates.

Age	Pre-65 Retirees		Age	Retirees without Medicare	
	Male	Female		Male	Male
<55	\$ 7,800	\$ 9,400	65 – 69	\$ 13,200	\$ 13,200
55 – 59	\$ 10,300	\$ 10,600	70 – 74	\$ 14,200	\$ 14,200
60 – 64	\$ 13,300	\$ 12,500	75+	\$ 15,300	\$ 15,300

The per capita costs represent the cost of coverage for a retiree-only population.

Actuarial standards require the recognition of higher inherent costs for a retired population versus an active population.

Per capita costs for post-65 retirees and disabled retirees are Medicare eligible are assumed to be equal to the premium rate of the Medicare Advantage plan (\$202.07 per month). Post-65 ISP retirees also receive the ISP’s HRA benefit, which is \$74.92 per month effective January 1, 2020.

Annual dental and vision per capita costs are \$572 and \$64 respectively for those enrolled in the Optional plan and they are expected to increase according to dental and vision trend rates. These costs are based on claims and enrollment data for the 24-month period ending May 31, 2019 projected to 2019/20 plan year and includes projected administrative expenses effective on January 1, 2020.



Actuarial Assumptions and Methods (INDIANA STATE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Data Assumptions

15% of future retirees are assumed to elect the Basic Plan (without dental and vision benefits).

Explicit Subsidy

The difference between (a) the medical portion of the premium rate approved by ISP and (b) the retiree contribution for medical benefits. Below is an example of the monthly explicit subsidy for a retiree under age 62 enrolled in the Optional plan.

	Premium Rate	Retiree Contribution	Explicit Subsidy
	A	B	C = A - B
Retiree	\$ 535.23	\$ 535.23	\$ 0.00
Spouse	\$ 224.06	\$ 224.06	\$ 0.00

Implicit Age Subsidy

The difference between (a) the per capita cost as determined by Nyhart and (b) the rate approved by ISP. Below is an example of the monthly implicit subsidies for a male retiree age 62 enrolled in the Optional plan with spouse of the same age.

	Per Capita Cost	Premium Rate	Implicit Subsidy
	A	B	C = A - B
Retiree	\$ 1,108.33	\$ 535.23	\$ 573.10
Spouse	\$ 1,041.67	\$ 224.06	\$ 817.61

All employers that utilize premium rates based on blended active/retiree claims experience will have an implicit subsidy. There is an exception for Medicare plans using a true community-rated premium rate.



Actuarial Assumptions and Methods (INDIANA STATE POLICE)

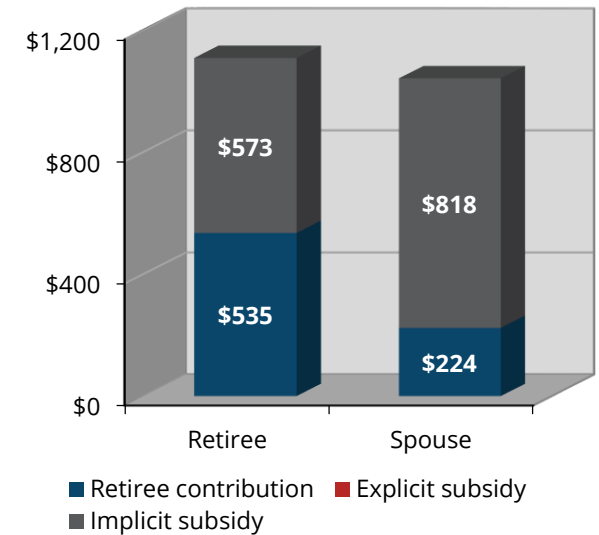
State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

GASB Subsidy Breakdown

Below is a breakdown of the GASB 74/75 monthly total cost for a male retiree age 62 enrolled in the Optional Plan with spouse of the same age for medical benefits only.

	Retiree		Spouse	
Retiree contribution	\$	535.23	\$	224.06
Explicit subsidy	\$	0.00	\$	0.00
Implicit subsidy	\$	573.10	\$	817.61
Total monthly cost	\$	1,108.33	\$	1,041.67

GASB Subsidy Breakdown



SECTION E – CONSERVATION AND EXCISE POLICE



GASB Disclosures (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Schedule of Changes in Net OPEB Liability and Related Ratios

OPEB Liability	FY 2018/19	FY 2017/18
Total OPEB Liability		
Total OPEB liability – beginning of year	\$ 60,902,667	\$ 56,023,950
Service cost	1,840,364	1,794,865
Interest	2,410,074	2,035,351
Changes of benefit terms	2,112,887	0
Changes in assumptions	6,222,558	(3,386,967)
Differences between expected and actual experience	4,353,479	5,738,944
Benefit payments	(943,409)	(1,303,476)
Net change in total OPEB liability	\$ 15,995,953	\$ 4,878,717
Total OPEB liability – end of year	\$ 76,898,620	\$ 60,902,667
Plan Fiduciary Net Position		
Plan fiduciary net position – beginning of year	\$ 20,235,818	\$ 15,175,762
Contributions – employer	4,020,900	6,240,555
Contributions – active employees	0	0
Net investment income	492,902	213,433
Benefit payments	(943,409)	(1,303,476)
Trust administrative expenses	(83,533)	(90,456)
Net change in plan fiduciary net position	\$ 3,486,860	\$ 5,060,056
Plan fiduciary net position – end of year	\$ 23,722,678	\$ 20,235,818
Net OPEB Liability – end of year	\$ 53,175,942	\$ 40,666,849
Plan fiduciary net position as % of total OPEB liability	30.8%	33.2%
Covered employee payroll	\$ 17,722,730	\$ 16,842,290
Net OPEB liability as % of covered payroll	300.0%	241.5%



GASB Disclosures (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Schedule of Employer Contributions

The Actuarially Determined Contributions (ADC) shown below prior to FY 2016/17 are based on the Annual Required Contribution (ARC) calculated in prior GASB 45 actuarial valuations as shown in the Plan Sponsor financial statements.

	<i>FY 2018/19</i>	<i>FY 2017/18</i>	<i>FY 2016/17</i>	<i>FY 2015/16</i>	<i>FY 2014/15</i>
Actuarially Determined Contribution (ADC)	\$ 3,774,197 ²⁰	\$ 3,831,452	\$ 3,348,809	\$ 3,312,731	\$ 3,123,622
Contributions in relation to the ADC ²¹	4,020,900	6,240,555	3,717,824	3,575,032	2,436,777
Contribution deficiency / (excess)	\$ (246,703)	\$ (2,409,103)	\$ (369,015)	\$ (262,301)	\$ 686,845
Covered employee payroll	\$ 17,722,730	\$ 16,842,290	\$ 16,471,677	\$ 14,497,000	\$ 15,106,000
Contribution as a % of covered employee payroll	22.7%	37.1%	22.6%	24.7%	16.1%

	<i>FY 2013/14</i>	<i>FY 2012/13</i>	<i>FY 2011/12</i>	<i>FY 2010/11</i>	<i>FY 2009/10</i>
Actuarially Determined Contribution (ADC)	\$ 2,821,614	\$ 3,052,678	\$ 3,674,720	\$ 4,423,420	\$ 5,372,510
Contributions in relation to the ADC ⁹	2,482,148	2,892,842	6,889,202	1,335,846	1,303,244
Contribution deficiency / (excess)	\$ 339,466	\$ 159,836	\$ (3,214,482)	\$ 3,087,574	\$ 4,069,266
Covered employee payroll	\$ 15,969,000	\$ 25,532,000	\$ 12,600,000	N/A	N/A
Contribution as a % of covered employee payroll	15.5%	11.3%	54.7%	N/A	N/A

²⁰ Refer to the Actuarially Determined Contributions section for the calculation details.

²¹ Includes employer contribution for pay-go cost paid from General Fund and pre-funding contributions deposited into the OPEB Trust.



GASB Disclosures (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

OPEB Expense

<i>OPEB Expense</i>	<i>FY 2018/19</i>	<i>FY 2017/18</i>
Discount rate as of beginning of fiscal year	3.87%	3.56%
Discount rate as of end of fiscal year	3.36%	3.87%
Service cost	\$ 1,840,364	\$ 1,794,865
Interest	2,410,074	2,035,351
Changes of benefit terms	2,112,887	0
Projected earnings on OPEB plan investments	(705,927)	(571,340)
Reduction for contributions from active employees	0	0
OPEB plan administrative expenses	83,533	90,456
Current period recognition of deferred outflows / (inflows) of resources		
Differences between expected and actual experience	\$ 1,261,553	\$ 717,368
Changes in assumptions	354,449	(423,371)
Net difference between projected and actual earnings on OPEB plan investments	114,186	71,581
Total current period recognition	\$ 1,730,188	\$ 365,578
Total OPEB expense	\$ 7,471,119	\$ 3,714,910



GASB Disclosures (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Deferred Outflows / (Inflows) of Resources

Deferred Outflows / (Inflows) of Resources represents the following items that have not been recognized in the OPEB Expense:

1. Differences between expected and actual experience of the OPEB plan
2. Changes of assumptions
3. Difference between projected and actual earnings in OPEB plan investments

The initial amortization period for the first two items noted above is based on the average future service to retirement while the difference between projected and actual earnings in OPEB plan investment is amortized over five years. All balances are amortized linearly on a principal only basis and new bases will be created annually for each of the item above.

<i>Differences between expected and actual experience for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2019</i>
June 30, 2018	\$ 5,738,944	8	\$ 717,368	\$ 4,304,208
June 30, 2019	\$ 4,353,479	8	\$ 544,185	\$ 3,809,294

<i>Changes in assumptions for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2019</i>
June 30, 2018	\$ (3,386,967)	8	\$ (423,371)	\$ (2,540,225)
June 30, 2019	\$ 6,222,558	8	\$ 777,820	\$ 5,444,738

<i>Net difference between projected and actual earnings in OPEB plan investments for FYE</i>	<i>Initial Balance</i>	<i>Initial Amortization Period</i>	<i>Annual Recognition</i>	<i>Unamortized Balance as of June 30, 2019</i>
June 30, 2018	\$ 357,907	5	\$ 71,581	\$ 214,745
June 30, 2019	\$ 213,025	5	\$ 42,605	\$ 170,420



GASB Disclosures (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Deferred Outflows / (Inflows) of Resources - Continued

<i>As of fiscal year ending June 30, 2019</i>	<i>Deferred Outflows</i>	<i>Deferred Inflows</i>
Differences between expected and actual experience	\$ 8,113,502	\$ 0
Changes in assumptions	5,444,738	(2,540,225)
Net difference between projected and actual earnings in OPEB plan investments	385,165	0
Total	\$ 13,943,405	\$ (2,540,225)

Annual Amortization of Deferred Outflows / (Inflows)

The balances as of June 30, 2019 of the deferred outflows / (inflows) of resources will be recognized in OPEB expense in the future fiscal years as noted below.

<i>FYE</i>	<i>Balance</i>
2020	\$ 1,730,188
2021	\$ 1,730,188
2022	\$ 1,730,190
2023	\$ 1,658,607
2024	\$ 1,616,002
Thereafter	\$ 2,938,005



GASB Disclosures (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Sensitivity Results

The following presents the net OPEB liability as of June 30, 2019, calculated using the discount rate assumed and what it would be using a 1% higher and 1% lower discount rate.

- The current discount rate is 3.36%.
- The 1% decrease in discount rate would be 2.36%.
- The 1% increase in discount rate would be 4.36%.

<i>As of June 30, 2019</i>	<i>Net OPEB Liability</i>	
1% Decrease	\$	67,926,795
Current Discount Rate	\$	53,175,942
1% Increase	\$	41,640,989

The following presents the net OPEB liability as of June 30, 2019, using the health care trend rates assumed and what it would be using 1% higher and 1% lower health care trend rates.

- The current health care trend rate starts at an initial rate of 8.0% decreasing by 0.5% annually to an ultimate rate of 4.5%.
- The 1% decrease in health care trend rates would assume an initial rate of 7.0% decreasing by 0.5% annually to an ultimate rate of 3.5%.
- The 1% increase in health care trend rates would assume an initial rate of 9.0% decreasing by 0.5% annually to an ultimate rate of 5.5%.

<i>As of June 30, 2018</i>	<i>Net OPEB Liability</i>	
1% Decrease	\$	40,365,611
Current Health Care Trend Rates	\$	53,175,942
1% Increase	\$	70,114,073



Asset Information (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Asset Information

<i>Asset Breakdown</i>	<i>FY 2017/18</i>	<i>FY 2018/19</i>
Assets		
Cash and cash equivalents	\$ 878,930	\$ 853,240
Securities lending cash collateral	0	0
Total cash	\$ 878,930	\$ 853,240
Receivables		
Contributions	\$ 70,012	\$ 0
Accrued interest	19,488	29,341
Total receivables	\$ 968,430	\$ 29,341
Investments		
Fixed income	\$ 19,446,173	\$ 22,927,878
Equities	0	0
Mutual Funds	0	0
Other	0	0
Total investments	\$ 19,446,173	\$ 22,927,878
Total assets	\$ 20,414,603	\$ 23,810,459
Liabilities		
Payables		
Investment management fees	\$ 0	\$ 87,781
Benefits	(178,785)	0
Total liabilities	\$ (178,785)	\$ 87,781
Net position restricted to OPEB	\$ 20,235,818	\$ 23,722,678



Asset Information (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

<i>Asset Reconciliation</i>	<i>FY 2017/18</i>	<i>FY 2018/19</i>
Additions		
Contributions received		
Employer	\$ 6,240,555	\$ 4,020,900
Employee	0	0
Total contributions	\$ 6,240,555	\$ 4,020,900
Investment income		
Net increase in fair value of investments	\$ 213,433	\$ 492,902
Interests and dividends	0	0
Investment expense, other than from securities lending	0	0
Securities lending income	0	0
Securities lending expense	0	0
Net investment income	\$ 213,433	\$ 492,902
Total additions	\$ 6,453,988	\$ 4,513,802
Deductions		
Benefit payments (net of retiree contributions)	\$ (1,303,476)	\$ (943,409)
Administrative expenses	(90,456)	(83,533)
Other	0	0
Total deductions	\$ (1,393,932)	\$ (1,026,942)
Net increase in net position	\$ 5,060,056	\$ 3,486,860
Net position restricted to OPEB		
Beginning of year	15,175,762	20,235,818
End of year	\$ 20,235,818	\$ 23,722,678

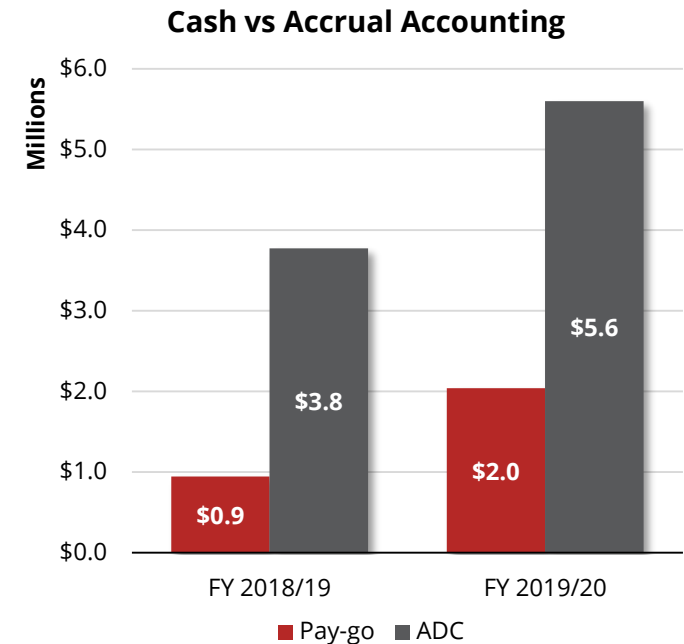


Actuarially Determined Contributions (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

The Actuarially Determined Contributions calculated below are recommended target contributions and assumes that the Plan Sponsor has the ability to contribute these amounts on an annual basis. The Plan Sponsor has the responsibility to decide how much it should contribute after considering its other needs and the OPEB participants' needs.

	FY 2018/19	FY 2019/20
Discount rate	4.50%	3.25%
Payroll growth factor used for amortization	N/A	N/A
Actuarial cost method	Entry Age Normal Level % of Salary	Entry Age Normal Level % of Salary
Amortization type	Level Dollar	Level Dollar
Amortization period	28 years	27 years
Actuarial accrued liability (AAL) – beginning of year	\$ 54,773,811	\$ 78,346,068
Actuarial value of assets – beginning of year	(20,235,818)	(23,722,678)
Unfunded AAL – beginning of year	\$ 34,537,993	\$ 54,623,390
Normal Cost	\$ 1,512,264	\$ 2,450,373
Amortization of UAAL	2,099,408	2,972,987
Total normal cost plus amortization	\$ 3,611,672	\$ 5,423,360
Interest to the end of year	162,525	176,259
Actuarially Determined Contribution – Preliminary	\$ 3,774,197	\$ 5,599,619
Expected benefit payments ²²	943,409	2,040,551
Actuarially Determined Contribution – Final²³	\$ 3,774,197	\$ 5,599,619



Actuarially Determined Contribution (ADC) is the target or recommended contribution to a defined benefit OPEB plan, which if paid on an ongoing basis, will provide sufficient resources to fund future costs for services to be earned and liabilities attributed to past services. This is typically higher than the pay-as-you-go cost because it includes recognition of employer costs expected to be paid in future accounting periods.

²² Actual for FY 2018/19

²³ Set to be the greater of the preliminary ADC and expected benefit payments.



Projection of GASB Results (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Projection of GASB Results

The Total OPEB Liability (TOL) is expected to change on an annual basis as a result of expected and unexpected events. Under normal circumstances, it is generally expected to have a net increase each year. Below is a list of the most common events affecting the total OPEB liability and whether they increase or decrease the liability.

Expected Events

- Increases in TOL due to additional benefit accruals as employees continue to earn service each year
- Increases in TOL due to interest as the employees and retirees age
- Decreases in TOL due to benefit payments

Unexpected Events

- Increases in TOL when actual premium rates increase more than expected. A liability decrease occurs if the reverse happens.
- Increases in TOL when more new retirements occur than expected or fewer terminations occur than anticipated. Liability decreases occur when the opposite outcomes happen.
- Increases or decreases in TOL depending on whether benefits are improved or reduced.

<i>Projection of Total OPEB Liability (TOL)</i>	<i>FY 2018/19</i>	<i>FY 2019/20</i>
TOL as of beginning of year	\$ 60,902,667	\$ 76,898,620
Normal cost as of beginning of year	1,840,364	2,367,309
Exp. benefit payments during the year	(943,409)	(2,040,551)
Interest adjustment to end of year	2,410,074	2,629,337
Exp. TOL as of end of year	\$ 64,209,696	\$ 79,854,715
Actuarial Loss/(Gain)	12,688,924	TBD
Actual TOL as of end of year	\$ 76,898,620	\$ TBD

<i>Projection of Actuarial Value of Assets (AVA)</i>	<i>FY 2018/19</i>	<i>FY 2019/20</i>
AVA as of beginning of year	\$ 20,235,818	\$ 23,722,678
Exp. employer contributions during the year ²⁴	4,020,900	4,175,301
Exp. benefit payments during the year	(943,409)	(1,375,301)
Exp. investment income ²⁵	705,927	814,244
Exp. Trust administrative expenses	(83,533)	(116,557)
Exp. AVA as of end of year	\$ 23,935,703	\$ 27,220,365
Differences between expected and actual experience	(213,025)	TBD
AVA as of end of year	\$ 23,722,678	\$ TBD

²⁴ Employer contribution for 2018/19 is based on actual employer contribution made into the Trust. FY 2019/20 expected employer contribution is based on the expected pay-go cost plus the average Trust contribution in the past four years, rounded down to the nearest hundred thousand.

²⁵ Fiscal years 2018/19 and 2019/20 expected investment income are calculated based on a 3.25% asset return.



Employer Contributions Cash Flow Projections (CONSERVATION AND EXCISE POLICE)

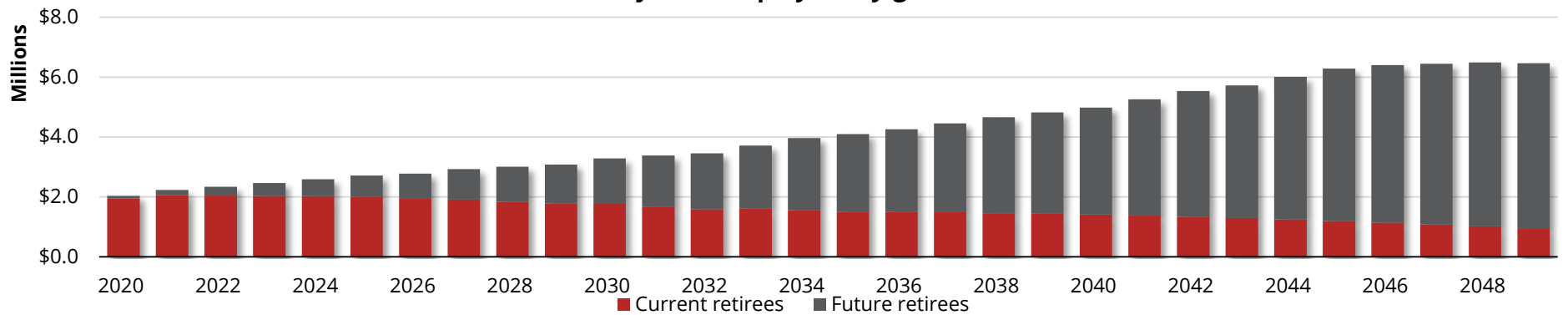
State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Employer Contribution Cash Flow Projections

The below projections show the actuarially estimated employer-paid contributions for retiree health benefits for the next thirty years. Results are shown separately for a closed group of current / future retirees. These projections include explicit and implicit subsidies.

FYE	Current Retirees	Future Retirees ²⁶	Total	FYE	Current Retirees	Future Retirees ²³	Total	FYE	Current Retirees	Future Retirees ²³	Total
2020	\$ 1,958,717	\$ 81,834	\$ 2,040,551	2030	\$ 1,769,404	\$ 1,513,429	\$ 3,282,833	2040	\$ 1,409,467	\$ 3,575,024	\$ 4,984,491
2021	\$ 2,057,765	\$ 179,250	\$ 2,237,015	2031	\$ 1,665,721	\$ 1,721,935	\$ 3,387,656	2041	\$ 1,376,667	\$ 3,887,390	\$ 5,264,057
2022	\$ 2,049,107	\$ 294,888	\$ 2,343,995	2032	\$ 1,592,786	\$ 1,860,528	\$ 3,453,314	2042	\$ 1,338,848	\$ 4,201,666	\$ 5,540,514
2023	\$ 2,037,938	\$ 423,954	\$ 2,461,892	2033	\$ 1,607,573	\$ 2,110,718	\$ 3,718,291	2043	\$ 1,296,159	\$ 4,428,062	\$ 5,724,221
2024	\$ 2,029,246	\$ 562,809	\$ 2,592,055	2034	\$ 1,565,000	\$ 2,403,869	\$ 3,968,869	2044	\$ 1,248,829	\$ 4,763,389	\$ 6,012,218
2025	\$ 2,011,693	\$ 701,071	\$ 2,712,764	2035	\$ 1,514,038	\$ 2,580,552	\$ 4,094,590	2045	\$ 1,197,176	\$ 5,085,549	\$ 6,282,725
2026	\$ 1,941,301	\$ 840,235	\$ 2,781,536	2036	\$ 1,507,320	\$ 2,753,608	\$ 4,260,928	2046	\$ 1,141,603	\$ 5,264,427	\$ 6,406,030
2027	\$ 1,912,896	\$ 1,020,802	\$ 2,933,698	2037	\$ 1,495,678	\$ 2,956,406	\$ 4,452,084	2047	\$ 1,082,591	\$ 5,365,092	\$ 6,447,683
2028	\$ 1,840,782	\$ 1,170,637	\$ 3,011,419	2038	\$ 1,459,712	\$ 3,202,787	\$ 4,662,499	2048	\$ 1,020,680	\$ 5,474,115	\$ 6,494,795
2029	\$ 1,781,306	\$ 1,296,787	\$ 3,078,093	2039	\$ 1,437,161	\$ 3,383,605	\$ 4,820,766	2049	\$ 956,473	\$ 5,510,403	\$ 6,466,876

Projected Employer Pay-go Cost



²⁶ Projections for future retirees do not take into account future new hires.



Discussion of Discount Rates (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Under GASB 74, the discount rate used in valuing OPEB liabilities for funded plans as of the Measurement Date must be based on the long-term expected rate of return on OPEB plan investments that are expected to be used to finance future benefit payments to the extent that (a) they are sufficient to pay for the projected benefit payments and (b) the OPEB plan assets are invested using a strategy that will achieve that return. When the OPEB plan investments are insufficient to cover future benefit payments, a yield for 20-year tax-exempt general obligation municipal bonds with an average rating of AA /Aa or higher (or equivalent quality on another rating scale) must be used.

For the current valuation:

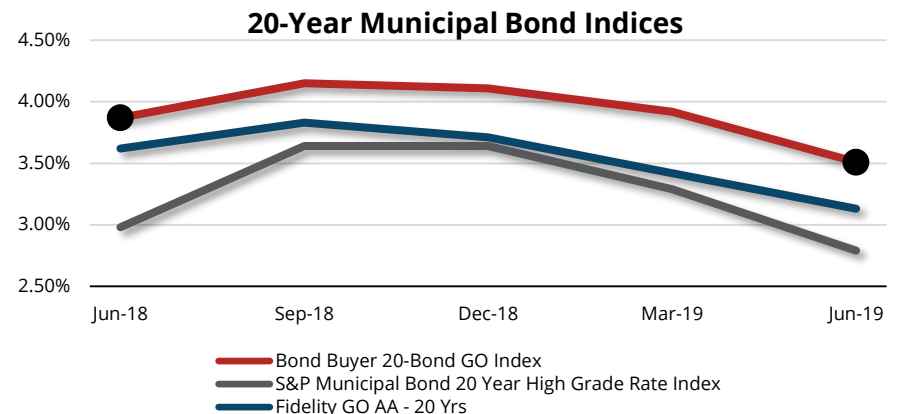
1. The long-term expected rate of return on OPEB plan investment is 3.25%. This was determined using a building block method in which expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These expected future real rates of return are then combined to produce the long-term expected rate of return by weighting them based on the target asset allocation percentage and adding in expected inflation (2.25%). The best estimates of arithmetic real rates of return for each major asset class included in the OPEB Plan's target asset allocation as of June 30, 2019 are summarized in the following table.

Asset Class	Target Allocation	L/T Expected Real ROR (JP Morgan)
U.S. Bond	100.00%	1.00%

2. The discount rate used when the OPEB plan investments are insufficient to pay for future benefit payments are selected from the range of indices as shown in the table below, where the range is given as the spread between the lowest and highest rate shown.

Yield as of	July 1, 2018	June 30, 2019
Bond Buyer Go 20-Bond Municipal Bond Index	3.87%	3.51%
S&P Municipal Bond 20-Year High Grade Rate Index	2.98%	2.79%
Fidelity 20-Year Go Municipal Bond Index	3.62%	3.13%
Bond Index Range	2.98% - 3.87%	2.79% - 3.51%
Actual Discount Rate Used	3.87%	3.51%

3. The final equivalent single discount rate used for this year's valuation is 3.87% as of July 1, 2018 and 3.36% as of June 30, 2019, based on the expectation that the CEP will continue to make contributions equal to the benefit payments each year plus additional pre-funding contributions of \$2.8 million per year (based on actual pre-funding contributions over the past four years).





Summary of Plan Participants (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Active Employees

<i>Actives with coverage</i>	<i>Single</i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>	<i>Avg. Svc</i>	<i>Salary</i>
Total actives with coverage	55	189	244	40.5	14.6	\$ 17,722,730

Census information for active employees who currently have no coverage was not provided. These individuals are not assumed to elect coverage at retirement and do not generate GASB liabilities.

Active Age-Service Distribution

<i>Age</i>	<i>Years of Service</i>										<i>Total</i>	
	<i>< 1</i>	<i>1 to 4</i>	<i>5 to 9</i>	<i>10 to 14</i>	<i>15 to 19</i>	<i>20 to 24</i>	<i>25 to 29</i>	<i>30 to 34</i>	<i>35 to 39</i>	<i>40 & up</i>		
Under 25		6										6
25 to 29		16	16									32
30 to 34		8	18	7								33
35 to 39		2	14	24	12							52
40 to 44		2	6	8	13	7						36
45 to 49			1	7	6	26	5					45
50 to 54			1	1	3	5	10	2	1			23
55 to 59							2	9	2			13
60 to 64						1		1	1	1		4
65 to 69												0
70 & up												0
Total	0	34	56	47	34	39	17	12	4	1		244



Summary of Plan Participants (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Summary of Plan Participants - Retirees

<i>Retirees with coverage</i>	<i>Single</i>	<i>Non-Single</i>	<i>Total</i>	<i>Avg. Age</i>
Total retirees with coverage	65	133	198	68.3

Retiree Age Distribution

<i>Age</i>	<i>Retirees</i>
< 45	
45 to 49	
50 to 54	9
55 to 59	24
60 to 64	47
65 to 69	42
70 to 74	35
75 to 79	28
80 to 84	6
85 to 89	3
90 & up	4
Total	198



Substantive Plan Provisions (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Eligibility

Conservation and Excise police officers are eligible for retiree health care benefits at the earlier of:

- a. Age 50 with 25 years of service
- b. Age 55 with 85 points

Spouse Coverage

Surviving spouse coverage continues for life after the death of the member (retiree or active employee eligible to retire). The coverage is free for six months and then it reverts to single retiree coverage.

Medical Benefit

The same benefit options are available to retirees as active employees. All health plans are self-insured. Effective on January 1, 2020, all post-65 Medicare eligible retirees will be removed from the CEP's traditional health plan. They will be covered under a Medicare Advantage Plan through Anthem and a Medicare Part D plan. The medical premium for the post-65 Medicare Advantage plan is \$375.03 per month.

For retirees, health, dental, and vision coverage are combined.

Life Insurance

None

CEP Explicit Subsidy

An explicit subsidy is valued for post-Medicare medical benefits, since the retiree contribution for the Medicare Advantage plan is less than the full cost of coverage for these benefits.

Senate Enrolled Act 501

Purpose

Senate Enrolled Act 501 establishes a retirement medical benefits account for elected officers, appointed officers, and employees of the executive, legislative, and judicial branches of state government to pay for participants' medical expenses after retirement.

Effective July 1, 2011 conservation officers of the Department of National Resources and employees of the State Excise Police are not eligible for the Senate Enrolled Act 501 retirement medical benefits account.



Substantive Plan Provisions (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Retiree Contributions

2020 monthly retiree contributions effective on January 1, 2020 as determined by CEP are split by benefit as shown below. The dental and vision costs below are determined based on dental and vision claims and enrollment information for the 24-month period ending May 31, projected to 2019/20 plan year and includes projected administrative expenses effective on January 1, 2020. Contributions are allocated to vision benefit first, dental second, and medical last.

	Single	Member + Spouse	Incremental Spouse Cost
<u>Pre-Medicare</u>			
Medical	\$ 335.43	\$ 632.93	\$ 297.50
Dental	\$ 35.70	\$ 71.40	\$ 35.70
Vision	\$ 7.10	\$ 14.20	\$ 7.10
Total	\$ 378.23	\$ 718.53	\$ 340.30
<u>Post-Medicare</u>			
Medical	\$ 104.58	\$ 209.16	\$ 104.58
Dental	\$ 35.70	\$ 71.40	\$ 35.70
Vision	\$ 7.10	\$ 14.20	\$ 7.10
Total	\$ 147.38	\$ 294.76	\$ 147.38



Actuarial Assumptions and Methods (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Measurement Date	June 30, 2019
Actuarial Valuation Date	June 30, 2019 with no adjustments to get to the June 30, 2019 measurement date. Liabilities as of July 1, 2018 are based on an actuarial valuation date of July 1, 2017 projected to July 1, 2018 on a “no loss / no gain” basis.
Discount Rate	3.87% as of July 1, 2018 and 3.36% as of June 30, 2019 for accounting disclosure purposes; refer to the Discussion of Discount Rates section for more information on selection of the discount rate. 4.50% as of July 1, 2018 and 3.25% as of June 30, 2019 for calculating Actuarially Determined Contribution
Inflation Rate	2.25%
Cost Method	Allocation of Actuarial Present Value of Future Benefits for services prior and after the Measurement Date was determined using Entry Age Normal Level % of Salary method where: <ul style="list-style-type: none">• service Cost for each individual participant, payable from date of employment to date of retirement, is sufficient to pay for the participant’s benefit at retirement; and• annual Service Cost is a constant percentage of the participant’s salary that is assumed to increase according to the Payroll Growth.
Salary Scale	2.25% for general wage inflation plus 0.25% for merit and productivity increases.
Data Assumptions	All employees are assumed to elect medical, dental, and vision coverage at retirement.
Health Care Coverage Election Rate	
<i>Active Employees</i>	100% of active employees with current coverage are assumed to elect coverage at retirement. Active employees with no current coverage are assumed not to elect coverage at retirement.
<i>Inactive Employees</i>	Based on actual data.



Actuarial Assumptions and Methods (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Spousal Coverage

85% of male and 25% of female employees are assumed to be married upon retirement. Husbands are assumed to be three years older than wives.

Spousal coverage for current retirees is based on actual data.

Contribution Funding Policy

The Conservation and Excise Police maintain a separate health plan for its active and retired employees. The plan is self-insured and the Conservation and Excise Police maintain stop-loss reinsurance to protect against excessive claims. The annual cost of the plan is financed on a pay-as-you-go basis from State subsidies and active/retiree contributions. The Conservation and Excise Police also has the ability to manage plan costs by changing the benefit design to less expensive designs. The State contributes the same employer subsidy per active employee as regular State employees to the Conservation and Excise Police health fund. There is no direct State subsidy for retiree health care.

The Conservation and Excise Police active employees are younger and healthier, as a group, than regular State employees which results in lower health care costs per employee when comparing the two groups. Because of the lower active health costs, the State subsidy per employee is sufficient to cover the active health costs and create a surplus which is then used to subsidize the current retiree health care costs.

Starting in FYE June 30, 2012, the Conservation and Excise Police started pre-funding retiree health benefits.

Mortality

Pre and post-retirement mortality rates are based on SS-2012 Total Dataset Mortality Table with blue collar adjustment fully generational using SSA scale

Disability

Sample rates are as shown below.

Age	Rate
45	0.54%
50	0.91%
55	1.51%
60	2.44%



Actuarial Assumptions and Methods (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Retirement Rate

Annual retirement rates are as shown below.

Age	Rates
45	3%
46 – 49	2%
50	3%
51 – 59	15%
60 – 64	40%
65+	100%

Per Capita Costs

Annual pre-65 per capita costs are based on medical and prescription drug claims and enrollment data for the 24-month period ending May 31, 2019 projected to 2019/20 plan year and includes administrative expenses effective on January 1, 2020. The per capita costs were actuarially increased to a retiree-basis using health index factors and enrollment. These costs are assumed to increase with health care trend rates.

Age	Male	Female
50 – 54	\$ 9,300	\$ 11,100
55 – 59	\$ 12,200	\$ 12,500
60 – 64	\$ 15,700	\$ 14,900

The per capita costs represent the cost of coverage for a retiree-only population.

Actuarial standards require the recognition of higher inherent costs for a retired population versus an active population.

Post-65 per capita costs are assumed to be equal to the premium rate for the Medicare Advantage plan, which is \$375.03 per month (\$4,500 per year).

Annual dental and vision per capita costs are based on claims and enrollment data for the 24-month period ending May 31, 2019 projected to 2019/20 plan year and includes projected administrative expenses effective on January 1, 2020. The annual dental and vision per capita costs are \$428 and \$85 respectively and they are assumed to increase with dental and vision trend rates.



Actuarial Assumptions and Methods (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Withdrawal Rate

Assumption used to project terminations (voluntary and involuntary) prior to meeting minimum retirement eligibility for retiree health care coverage. Annual withdrawal rates are based on State Excise Police, Gaming Agent, Gaming Control Officer, and Conservation Enforcement Officers actuarial valuation as of June 30, 2018. Annual rates are as shown below.

YOS	Rates	YOS	Rates
0 – 1	10%	6	5%
2	9%	7	4%
3	8%	8	3%
4	7%	9	2%
5	6%	10+	1%

Retiree Contributions

Retiree contributions are assumed to increase with health care trend rates.

Health Care Trend Rates

FYE	Medical / Rx	FYE	Medical / Rx
2020	8.0%	2024	6.0%
2021	7.5%	2025	5.5%
2022	7.0%	2026	5.0%
2023	6.5%	2027+	4.5%

The initial trend rate was based on a combination of employer history, national trend surveys, and professional judgment.

The ultimate trend rate was selected based on historical medical CPI information.

Dental and vision costs are assumed to increase by 3.0% in the future.

Explicit Subsidy

The difference between (a) the Nyhart calculated premium equivalent rates and (b) the retiree contribution approved by CEP for medical benefits only. Below is an example of the monthly explicit subsidies for a retiree age 62 with spousal coverage.

	Premium Rate	Retiree Contribution	Explicit Subsidy
	A	B	C = A - B
Retiree	\$ 646.19	\$ 335.43	\$ 310.76
Spouse	\$ 646.19	\$ 297.50	\$ 348.69



Actuarial Assumptions and Methods (CONSERVATION AND EXCISE POLICE)

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Implicit Subsidy

The difference between (a) the per capita cost and (b) the Nyhart calculated premium equivalent rates. Below is an example of the monthly medical implicit subsidies for a male retiree age 62 and his spouse of the same age.

	Per Capita Cost	Premium Rate	Implicit Subsidy
	A	B	C = A - B
Retiree	\$ 1,308.33	\$ 646.19	\$ 662.14
Spouse	\$ 1,241.67	\$ 646.19	\$ 595.48

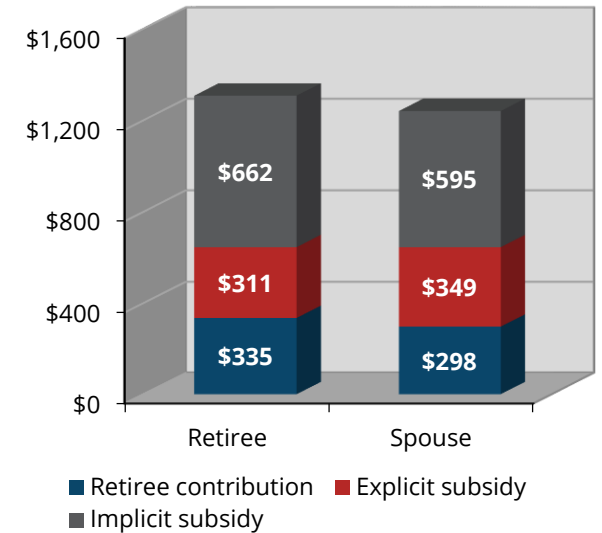
All employers that utilize premium rates based on blended active/retiree claims experience will have an implicit subsidy. There is an exception for Medicare plans using a true community-rated premium rate.

GASB Subsidy Breakdown

Below is a breakdown of the GASB 74/75 monthly total cost for a male retiree age 62 and his spouse of the same age for medical benefits only.

	Retiree		Spouse	
Retiree contribution	\$	335.43	\$	297.50
Explicit subsidy	\$	310.76	\$	348.69
Implicit subsidy	\$	662.14	\$	595.48
Total monthly cost	\$	1,308.33	\$	1,241.67

GASB Subsidy Breakdown



SECTION F – APPENDIX



Appendix

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Appendix A – Comparison of Participant Demographic Information

	<i>As of June 30, 2017</i>				<i>As of June 30, 2019</i>			
	<i>State Personnel</i>	<i>Legislature</i>	<i>ISP</i>	<i>CEP</i>	<i>State Personnel</i>	<i>Legislature</i>	<i>ISP</i>	<i>CEP</i>
Active Participants ²⁷	23,617	112	1,665	262	25,659	113	1,688	244
Retired Participants ²⁸	725	38	1,120	191	552	34	1,076	198
Averages for Active								
Age	45.7	57.9	42.9	39.4	44.9	56.7	43.3	40.5
Service	11.0	10.0	14.9	14.0	10.0	9.8	15.4	14.6
Averages for Inactive								
Age	62.1	72.3	70.7	67.7	62.4	74.9	71.6	68.3

²⁷ Only includes employees who have medical / rx coverage. Refer to Summary of Plan Participants section for an accurate breakdown of active employees with and without medical / rx coverage.

²⁸ The retired enrollment figures above exclude spouses and those who currently have no medical / rx coverage. ISP retired participants enrollment excludes those who have life insurance benefits only and include beneficiaries. Refer to Summary of Plan Participants section for an accurate breakdown of retirees with and without medical / rx coverage.



Appendix

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Appendix B – Data Reconciliation by Group

	<i>State Personnel</i>	<i>Indiana State Police (ISP)</i>	<i>Conservation and Excise Police (CEP)²⁹</i>
Active employees with coverage			
Actives as of June 30, 2017	23,617	1,665	262
Terminated	(5,315)	(117)	(10)
New hires	7,371	186	3
Active employees who retired	(213)	(47)	(13)
Retirees who returned to active employment	2	1	
Other adjustment ³⁰	197		2
Actives as of June 30, 2019	25,659	1,688	244
Retirees with coverage			
Retirees as of June 30, 2017	725	946	191
Active employees who retired	221	41	13
Retirees who returned to active employment	(2)	(1)	
Retirees who dropped coverage or passed away without beneficiaries	(401)	(27)	(11)
Retirees who passed away with beneficiaries		(27)	
New retirees ³¹	9	2	5
Other adjustment ³¹		(22)	
Retirees as of June 30, 2019	552	912	198
Beneficiaries with coverage			
Beneficiaries as of June 30, 2017		174	
Active/retirees who passed away with beneficiaries		27	
Beneficiaries who dropped coverage		(37)	
Beneficiaries as of June 30, 2019		164	

²⁹ Beneficiaries are included with retirees for the Conservation and Excise Police.

³⁰ This line shows adjustments for participants who have changed health plan enrollment status from June 30, 2017 to June 30, 2019 (i.e. those who did not have coverage before but are currently enrolled, and vice versa).

³¹ This line shows new retirees who were not found as active employees in June 30, 2017 census data or those who were previously active in a different employee group.



Appendix

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

Appendix C – Summary of Medical Benefits

A brief summary of all pre-65 health plans offered for all entities effective on January 1, 2020 are as shown below. The out-of-pocket maximum includes the deductible, coinsurance, and copayments. Information shown below is for in-network coverage.

STATE PERSONNEL / LEGISLATURES ³²	CDHP 1	CDHP 2	Traditional PPO
Deductible (Single / Family)	\$2,500 / \$5,000	\$1,750 / \$3,500	\$1,000 / \$2,000
Coinsurance	80%	80%	80%
Out-of-Pocket Maximum (Single / Family)	\$4,000 / \$8,000	\$3,000 / \$6,000	\$2,500 / \$5,000
Co-pay / co-insurances for:			
Office Visit	Subject to ded / co-ins	Subject to ded / co-ins	20%
Emergency Room	Subject to ded / co-ins	Subject to ded / co-ins	20%
Prescription drugs (Retail)			
Generic	\$10	\$10	\$10
Preferred Brand	20% (\$30 min / \$50 max)	20% (\$30 min / \$50 max)	20% (\$30 min / \$50 max)
Non-Preferred Brand	40% (\$50 min / \$70 max)	40% (\$50 min / \$70 max)	40% (\$50 min / \$70 max)
Specialty	40% (\$75 min / \$150 max)	40% (\$75 min / \$150 max)	40% (\$75 min / \$150 max)
Prescription drugs (Mail Order)			
Generic	\$20	\$20	\$20
Preferred Brand	20% (\$60 min / \$100 max)	20% (\$60 min / \$100 max)	20% (\$60 min / \$100 max)
Non-Preferred Brand	40% (\$100 min / \$140 max)	40% (\$100 min / \$140 max)	40% (\$100 min / \$140 max)

	ISP Retirees	CEP Retirees
Deductible (Single / Family)	\$750 / \$1,500	\$750 / \$1,500
Coinsurance	80%	80%
Out-of-Pocket Maximum (Single / Family)	\$4,000 / \$8,000	\$2,250 / \$4,500
Co-pay / co-insurances for:		
Office Visit	20%	20%
Emergency Room	20%	20%
Prescription Drugs:		
Deductible	\$200	\$300 / \$900
Retail (Generic / Pref / Non-Pref)	\$25 / \$40 / 50%	\$15 / \$40 / \$60
Mail Order (Generic / Pref / Non-Pref + Speciality)	\$30 / \$80 / 50%	\$30 / \$80 / \$120

³² Current CDHP Wellness participants will elect between the three plans shown above with reduced premiums. For the purposes of this valuation, these participants are assumed to elect the CDHP 1 plan.

SECTION G – GLOSSARY



Glossary - Decrements Exhibit

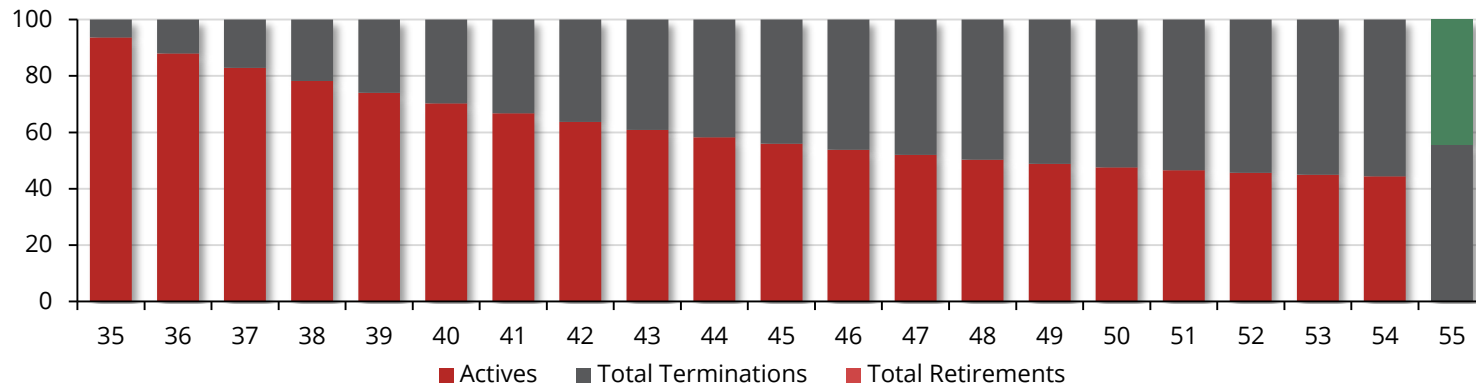
State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

The table below illustrates how actuarial assumptions can affect a long-term projection of future liabilities. Starting with 100 employees at age 35, the illustrated actuarial assumptions show that 44.43 employees out of the original 100 are expected to retire and could elect retiree health benefits at age 55.

Age	# Remaining Employees	# of Terminations per Year ³³	# of Retirements per Year	Total Decrements
35	100.000	6.276	0.000	6.276
36	93.724	5.677	0.000	5.677
37	88.047	5.136	0.000	5.136
38	82.911	4.648	0.000	4.648
39	78.262	4.209	0.000	4.209
40	74.053	3.814	0.000	3.814
41	70.239	3.456	0.000	3.456
42	66.783	3.131	0.000	3.131
43	63.652	2.835	0.000	2.835
44	60.817	2.564	0.000	2.564
45	58.253	2.316	0.000	2.316

Age	# Remaining Employees	# of Terminations per Year	# of Retirements per Year	Total Decrements
46	55.938	2.085	0.000	2.085
47	53.853	1.866	0.000	1.866
48	51.987	1.656	0.000	1.656
49	50.331	1.452	0.000	1.452
50	48.880	1.253	0.000	1.253
51	47.627	1.060	0.000	1.060
52	46.567	0.877	0.000	0.877
53	45.690	0.707	0.000	0.707
54	44.983	0.553	0.000	0.553
55	44.430	0.000	44.430	44.430

Decrements Exhibit



³³ The above rates are illustrative rates and are not used in our GASB calculations.

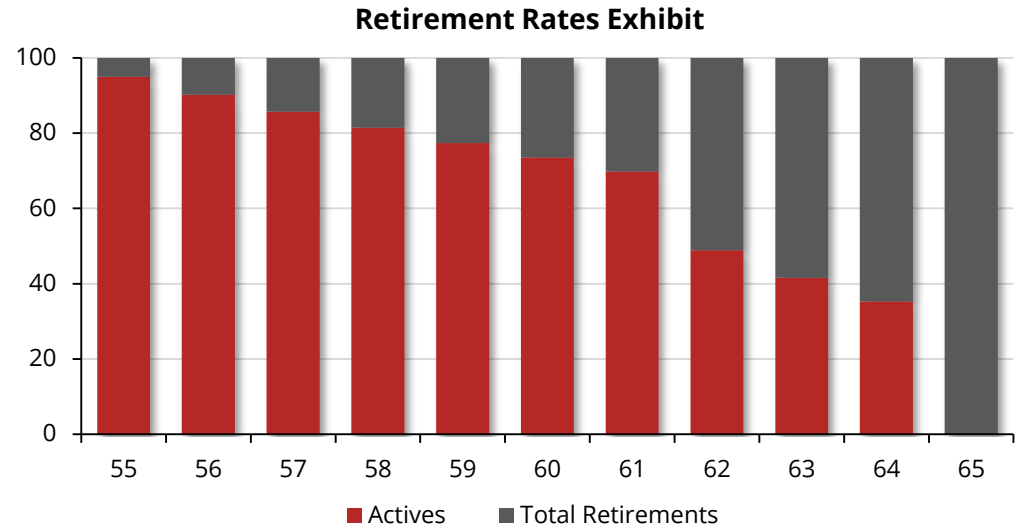


Glossary – Retirement Rates Exhibit

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

The table below illustrates how actuarial assumptions can affect a long-term projection of future liabilities. The illustrated retirement rates show the number of employees who are assumed to retire annually based on 100 employees age 55 who are eligible for retiree health care coverage. The average age at retirement is 62.0.

Age	Active Employees BOY	Annual Retirement Rates*	# Retirements per Year	Active Employees EOY
55	100.000	5.0%	5.000	95.000
56	95.000	5.0%	4.750	90.250
57	90.250	5.0%	4.513	85.738
58	85.738	5.0%	4.287	81.451
59	81.451	5.0%	4.073	77.378
60	77.378	5.0%	3.869	73.509
61	73.509	5.0%	3.675	69.834
62	69.834	30.0%	20.950	48.884
63	48.884	15.0%	7.333	41.551
64	41.551	15.0%	6.233	35.318
65	35.318	100.0%	35.318	0.000



* The above rates are illustrative rates and are not used in our GASB calculations.



Glossary – Definitions

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

GASB 75 defines several unique terms not commonly employed in the funding of pension and retiree health plans. The definitions of the terms used in the GASB actuarial valuations are noted below.

1. **Actuarial Assumptions** – Assumptions as to the occurrence of future events affecting health care costs, such as: mortality, withdrawal, disablement and retirement; changes in compensation and Government provided health care benefits; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; characteristics of future entrants for Open Group Actuarial Cost Methods; and other relevant items.
2. **Actuarial Cost Method** – A procedure for determining the Actuarial Present Value of Future Benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Service Cost and a Total OPEB Liability.
3. **Actuarially Determined Contribution** - A target or recommended contribution to a defined benefit OPEB plan for the reporting period, determined in accordance with the parameters and in conformity with Actuarial Standards of Practice.
4. **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 particular set of Actuarial Assumptions. For purposes of this standard, each such amount or series of amounts is:
 - a. adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, Social Security, marital status, etc.);
 - b. multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned; and
 - c. discounted according to an assumed rate (or rates) of return to reflect the time value of money.
5. **Deferred Outflow / (Inflow) of Resources** – represents the following items that have not been recognized in the OPEB Expense:
 - a. Differences between expected and actual experience of the OPEB plan
 - b. Changes in assumptions
 - c. Differences between projected and actual earnings in OPEB plan investments (for funded plans only)
6. **Explicit Subsidy** – The difference between (a) the amounts required to be contributed by the retirees based on the premium rates and (b) actual cash contribution made by the employer.
7. **Funded Ratio** – The actuarial value of assets expressed as a percentage of the Total OPEB Liability.



Glossary – Definitions

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

8. **Healthcare Cost Trend Rate** – The rate of change in the per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.
9. **Implicit Subsidy** – In an experience-rated healthcare plan that includes both active employees and retirees with blended premium rates for all plan members, the difference between (a) the age-adjusted premiums approximating claim costs for retirees in the group (which, because of the effect of age on claim costs, generally will be higher than the blended premium rates for all group members) and (b) the amounts required to be contributed by the retirees.
10. **OPEB** – Benefits (such as death benefits, life insurance, disability, and long-term care) that are paid in the period after employment and that are provided separately from a pension plan, as well as healthcare benefits paid in the period after employment, regardless of the manner in which they are provided. OPEB does not include termination benefits or termination payments for sick leave.
11. **OPEB Expense** – Changes in the Net OPEB Liability in the current reporting period, which includes Service Cost, interest cost, changes of benefit terms, expected earnings on OPEB Plan investments, reduction of active employees' contributions, OPEB plan administrative expenses, and current period recognition of Deferred Outflows / (Inflows) of Resources.
12. **Pay-as-you-go** – A method of financing a benefit plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.
13. **Per Capita Costs** – The current cost of providing postretirement health care benefits for one year at each age from the youngest age to the oldest age at which plan participants are expected to receive benefits under the plan.
14. **Present Value of Future Benefits** – Total projected benefits include all benefits estimated to be payable to plan members (retirees and beneficiaries, terminated employees entitled to benefits but not yet receiving them, and current active members) as a result of their service through the valuation date and their expected future service. The actuarial present value of total projected benefits as of the valuation date is the present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment. Expressed another way, it is the amount that would have to be invested on the valuation date so that the amount invested plus investment earnings will provide sufficient assets to pay total projected benefits when due.
15. **Real Rate of Return** – the rate of return on an investment after adjustment to eliminate inflation.



Glossary – Definitions

State of Indiana GASB 74/75 Valuation for Fiscal Year Ending June 30, 2019

16. **Select and Ultimate Rates** – Actuarial assumptions that contemplate different rates for successive years. Instead of a single assumed rate with respect to, for example, the investment return assumption, the actuary may apply different rates for the early years of a projection and a single rate for all subsequent years. For example, if an actuary applies an assumed investment return of 8% for year 20W0, then 7.5% for 20W1, and 7% for 20W2 and thereafter, then 8% and 7.5% select rates, and 7% is the ultimate rate.
17. **Service Cost** – The portion of the Actuarial Present Value of projected benefit payments that are attributed to a valuation year by the Actuarial Cost Method.
18. **Substantive Plan** – The terms of an OPEB plan as understood by the employer(s) and plan members.
19. **Total OPEB Liability** – That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of Future Benefits which is attributed to past periods of employee service (or not provided for by the future Service Costs).