

INTERIM GASB 74/75 ACTUARIAL VALUATION

Fiscal Year Ending June 30, 2022

STATE OF INDIANA Indiana State Police

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November 16, 2022

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 Indiana State Police 2021/22 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.

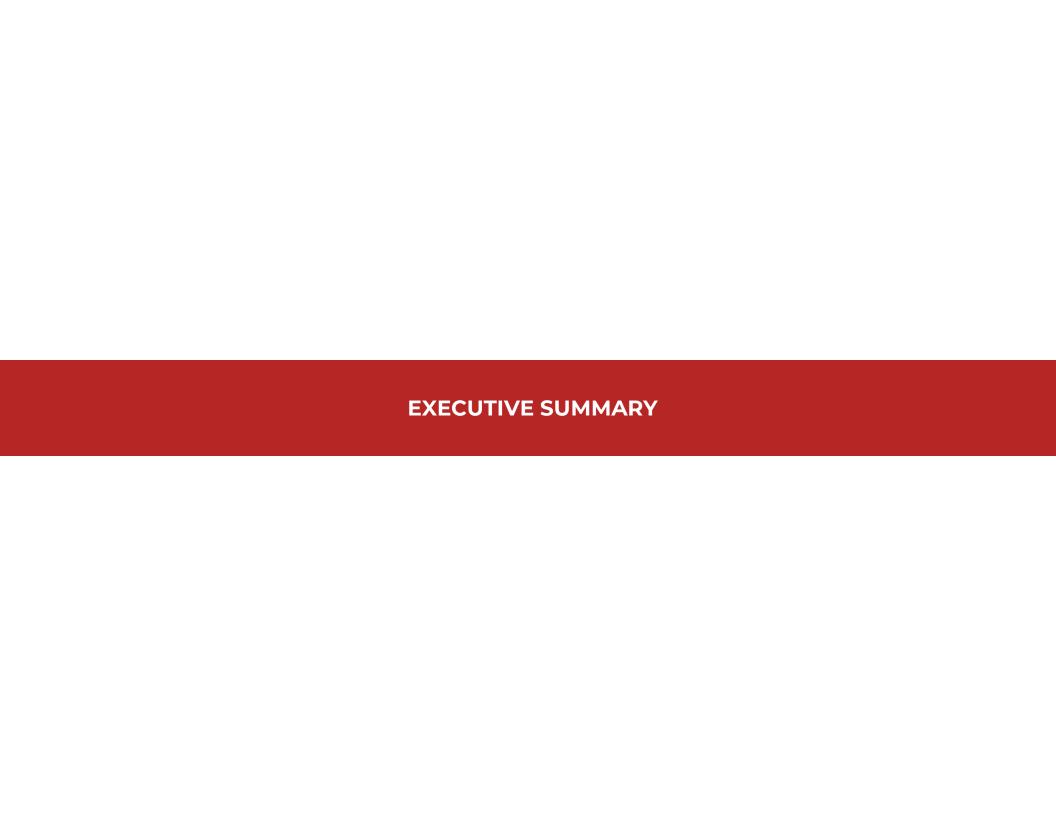
Should you have any questions please do not hesitate to contact us.

Cody Kocher, ASA, MAAA

Actuary

John Mallows, FSA, MAAA

Actuary





Executive Summary

State of Indiana Indiana State Police GASB 74/75 Valuation for Fiscal Year Ending June 30, 2022

Detailed Actuary's Notes

The following assumption changes have been made since last year's full valuation, which was for the fiscal year ending June 30, 2021:

Interim year valuation results have been projected from the prior year's valuation with adjustments for actual medical/Rx claims and enrollment experience for the 24 months ending May 2022 (with 70% weight on the most recent 12 months) and premium rate changes from 2022 to 2023. Making this change resulted in a decrease in liabilities.

Premium Rates

The 2022 and 2023 monthly retiree premium rates by plan for non-tobacco users are as shown below:

| 2022 |
|------|
|------|

| Plans | Single | Family |
|----------------------|-----------|-----------|
| Basic Plan | \$ 457.73 | \$ 611.28 |
| Optional Plan | \$ 535.23 | \$ 759.29 |
| Medicare Advantage | \$ 179.06 | \$ 358.12 |
| ISP HRA Contribution | \$ 57.25 | N/A |

2023

| Plans | Single | Family |
|----------------------|-----------|-----------|
| Basic Plan | \$ 457.73 | \$ 611.28 |
| Optional Plan | \$ 535.23 | \$ 759.29 |
| Medicare Advantage | \$ 171.24 | \$ 342.48 |
| ISP HRA Contribution | \$ 51.43 | N/A |

Executive Summary

State of Indiana Indiana State Police GASB 74/75 Valuation for Fiscal Year Ending June 30, 2022

Summary of Results

Presented below is the summary of GASB 74/75 results for the fiscal year ending June 30, 2022.

| | As o | of June 30, 2021 | As c | of June 30, 2022 |
|---------------------------|------|------------------|------|------------------|
| Total OPEB Liability | \$ | 168,916,685 | \$ | 172,737,071 |
| Actuarial Value of Assets | | (178,207,168) | | (166,270,222) |
| Net OPEB Liability | \$ | (9,290,483) | \$ | 6,466,849 |
| Funded Ratio | | 105.5% | | 96.3% |

| For FY 2021/22 | Fo | r FY 2020/21 | Fo | r FY 2021/22 |
|---|----|--------------|----|--------------|
| OPEB Expense | \$ | (26,129,737) | \$ | (21,946,963) |
| Annual Employer Contribution ¹ | \$ | 23,149,845 | \$ | 14,390,962 |

| As of June 30, 2022 | As of June 30, 2021 | As of June 30, 2022 |
|---------------------------|---------------------|---------------------|
| Discount Rate | 6.20% | 6.20% |
| Expected Return on Assets | 6.20% | 6.20% |

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 $^{^{\}mathrm{1}}$ Includes contributions made during the year by active employees and contributions from other sources

State of Indiana Indiana State Police GASB 74/75 Valuation for Fiscal Year Ending June 30, 2022

Schedule of Changes in Net OPEB Liability and Related Ratios

| OPEB Liability | | FY 2021/22 | | FY 2020/21 | | FY 2019/20 | | FY 2018/19 | | FY 2017/18 |
|--|----|--------------|----------|--------------|----|--------------|----------|---------------|----|---------------|
| Total OPEB Liability | | | | | | | | | | |
| Total OPEB liability – beginning of year | \$ | 168,916,685 | \$ | 177,447,852 | \$ | 198,445,243 | \$ | 324,517,099 | \$ | 539,736,386 |
| Service cost | | 5,183,808 | | 4,993,476 | | 5,032,384 | | 8,531,267 | | 17,810,791 |
| Interest | | 10,651,395 | | 11,208,431 | | 12,530,058 | | 12,777,709 | | 19,725,281 |
| Changes of benefit terms | | 0 | | 0 | | 0 | | 3,253,798 | | (196,573,638) |
| Changes in assumptions | | 0 | | 7,028,805 | | (15,686,765) | | (66,154,178) | | (27,946,460) |
| Differences between expected and actual experience | | (7,336,877) | | (28,390,809) | | (20,071,092) | | (78,675,348) | | (21,241,592) |
| Benefit payments | | (4,677,940) | | (3,371,070) | | (2,801,976) | | (5,805,104) | | (6,993,669) |
| Net change in total OPEB liability | \$ | 3,820,386 | \$ | (8,531,167) | \$ | (20,997,391) | \$ | (126,071,856) | \$ | (215,219,287) |
| Total OPEB liability – end of year | \$ | 172,737,071 | \$ | 168,916,685 | \$ | 177,447,852 | \$ | 198,445,243 | \$ | 324,517,099 |
| | | | | | | | | | | |
| Plan Fiduciary Net Position | | | | | | | | | | |
| Plan fiduciary net position – beginning of year | \$ | 178,207,168 | \$ | 158,657,034 | \$ | 137,969,003 | \$ | 117,362,956 | \$ | 97,322,900 |
| Contributions – employer | | 13,591,562 | | 22,322,322 | | 21,727,429 | | 23,936,818 | | 25,813,525 |
| Contributions – active employees | | 799,400 | | 827,523 | | 845,660 | | 857,420 | | 404,060 |
| Net investment income | | (21,354,237) | | 131,020 | | 1,276,385 | | 2,108,792 | | 1,422,502 |
| Benefit payments | | (4,677,940) | | (3,371,070) | | (2,801,976) | | (5,805,104) | | (6,993,669) |
| Trust administrative expenses | | (295,731) | | (359,661) | | (359,467) | | (491,879) | | (606,362) |
| Net change in plan fiduciary net position | \$ | (11,936,946) | \$ | 19,550,134 | \$ | 20,688,031 | \$ | 20,606,047 | \$ | 20,040,056 |
| Plan fiduciary net position – end of year | \$ | 166,270,222 | \$ | 178,207,168 | \$ | 158,657,034 | \$ | 137,969,003 | \$ | 117,362,956 |
| | | | | | | | | | | |
| Net OPEB Liability – end of year | \$ | 6,466,849 | \$ | (9,290,483) | \$ | 18,790,818 | \$ | 60,476,240 | \$ | 207,154,143 |
| Plan fiducians not position as W of total OPER link like | | 06.20/ | | 10F F0/ | | 00 40/ | | 69.5% | | 26.20/ |
| Plan fiduciary net position as % of total OPEB liability | + | 96.3% | . | 105.5% | + | 89.4% | . | | 4 | 36.2% |
| Covered employee payroll ² | \$ | 114,407,744 | \$ | 110,538,883 | \$ | 113,431,389 | \$ | 110,664,770 | \$ | 98,338,193 |
| Net OPEB liability as % of covered payroll | | 5.7% | | -8.4% | | 16.6% | | 54.6% | | 210.7% |

² FY 2021/22 covered payroll is based on covered payroll for FY 2020/21 increased by the payroll growth inflation assumption (3.50%).

State of Indiana Indiana State Police GASB 74/75 Valuation for Fiscal Year Ending June 30, 2022

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.

| | FY 2021/22 | FY 2020/21 | FY 2019/20 | FY 2018/19 | FY 2017/18 |
|---|-------------------|--------------------|--------------------|-------------------|------------------|
| Actuarially Determined Contribution (ADC) | \$ 4,613,003 | \$ 5,897,655 | \$ 9,116,153 | \$ 18,356,134 | \$ 35,041,558 |
| Contributions in relation to the ADC ³ | 13,591,562 | 22,322,322 | 21,727,429 | 23,936,818 | 25,813,525 |
| Contribution deficiency / (excess) | \$ (8,978,559) | \$ (16,424,667) | \$ (12,611,276) | \$ (5,580,684) | \$ 9,228,033 |
| | | | | | |
| Covered employee payroll | \$ 114,407,744 | \$ 110,538,883 | \$ 113,431,389 | \$ 110,664,770 | \$ 98,338,193 |
| Contribution as a % of covered employee payroll | 11.2% | 20.2% | 19.2% | 21.6% | 26.2% |
| | | | | | |
| | FY 2016/17 | FY 2015/16 | FY 2014/15 | FY 2013/14 | FY 2012/13 |
| Actuarially Determined Contribution (ADC) | \$ 34,980,369 | \$ 30,629,812 | \$ 29,604,071 | \$ 26,029,514 | \$ 27,418,949 |
| Contributions in relation to the ADC ⁴ | 26,871,267 | 34,862,363 | 25,319,778 | 24,834,550 | 11,683,966 |
| Contribution deficiency / (excess) | \$ 8,109,102 | \$ (4,232,551) | \$ 4,284,293 | \$ 1,194,964 | \$ 15,734,983 |
| | | | | | |
| Covered employee payroll | \$ 96,174,272 | \$ 91,753,000 | \$ 92,130,000 | \$ 93,630,000 | \$ 87,040,000 |
| Contribution as a % of covered employee payroll | 27.9% | 38.0% | 27.5% | 26.5% | 13.4% |

³ Includes employer contribution for pay-go cost and (any) pre-funding contributions deposited into the OPEB Trust.



State of Indiana Indiana State Police GASB 74/75 Valuation for Fiscal Year Ending June 30, 2022

OPEB Expense

| OPEB Expense | FY 2021/22 | FY 2020/21 |
|---|--------------------|--------------------|
| Discount rate as of beginning of fiscal year | 6.20% | 6.20% |
| Discount rate as of end of fiscal year | 6.20% | 6.20% |
| | | |
| Service cost | \$ 5,183,808 | \$ 4,993,476 |
| Interest | 10,651,395 | 11,208,431 |
| Changes of benefit terms | 0 | 0 |
| Projected earnings on OPEB plan investments | (11,336,390) | (10,429,676) |
| Reduction for contributions from active employees | (799,400) | (827,523) |
| OPEB plan administrative expenses | 295,731 | 359,661 |
| | | |
| Current period recognition of deferred outflows / (inflows) of resources | | |
| Differences between expected and actual experience | \$ (22,245,102) | \$ (21,196,977) |
| Changes in assumptions | (14,679,799) | (14,679,799) |
| Net difference between projected and actual earnings on OPEB plan investments | 10,980,794 | 4,442,670 |
| Total current period recognition | \$ (25,944,107) | \$ (31,434,106) |
| | | |
| Total OPEB expense | \$ (21,948,963) | \$ (26,129,737) |



State of Indiana Indiana State Police GASB 74/75 Valuation for Fiscal Year Ending June 30, 2022

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 an 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.

| Differences between expected and actual experience for FYE | Initial Balance | | Initial Amortization Period | Amortization Annual Recognitio | | | Unamortized Balance as of June 30, 2022 | | |
|--|-----------------|--------------|-----------------------------------|--------------------------------|--------------|----|---|--|--|
| June 30, 2018 | \$ | (21,241,592) | 7 | \$ | (3,034,513) | \$ | (6,069,027) | | |
| June 30, 2019 | \$ | (78,675,348) | 7 | \$ | (11,239,335) | \$ | (33,718,008) | | |
| June 30, 2020 | \$ | (20,071,092) | 7 | \$ | (2,867,299) | \$ | (11,469,195) | | |
| June 30, 2021 | \$ | (28,390,809) | 7 | \$ | (4,055,830) | \$ | (20,279,149) | | |
| June 30, 2022 | \$ | (7,336,877) | 7 | \$ | (1,048,125) | \$ | (6,288,752) | | |

| Changes in assumptions for FYE | Ir | Initial Initial Balance Amortization Period | | Annu | al Recognition | Unamortized Balance as of June 30, 2022 | | |
|--------------------------------|----|---|---|------|----------------|---|--------------|--|
| June 30, 2018 | \$ | (27,946,460) | 7 | \$ | (3,992,351) | \$ | (7,984,705) | |
| June 30, 2019 | \$ | (66,154,178) | 7 | \$ | (9,450,597) | \$ | (28,351,790) | |
| June 30, 2020 | \$ | (15,686,765) | 7 | \$ | (2,240,966) | \$ | (8,963,867) | |
| June 30, 2021 | \$ | 7,028,805 | 7 | \$ | 1,004,115 | \$ | 5,020,575 | |
| June 30, 2022 | \$ | 0 | 7 | \$ | 0 | \$ | 0 | |



State of Indiana Indiana State Police GASB 74/75 Valuation for Fiscal Year Ending June 30, 2022

Deferred Outflows / (Inflows) of Resources - Continued

| Net difference between projected and actual earnings in OPEB plan investments for FYE | Ini | itial Balance | Initial Amortization Period | Annud | al Recognition | Jnamortized ance as of June 30, 2022 |
|---|-----|---------------|-----------------------------------|-------|----------------|--|
| June 30, 2018 | \$ | 2,040,609 | 5 | \$ | 408,121 | \$ 0 |
| June 30, 2019 | \$ | 2,003,681 | 5 | \$ | 400,736 | \$ 400,737 |
| June 30, 2020 | \$ | 7,870,405 | 5 | \$ | 1,574,081 | \$ 3,148,162 |
| June 30, 2021 | \$ | 10,298,656 | 5 | \$ | 2,059,731 | \$ 6,179,194 |
| June 30, 2022 | \$ | 32,690,627 | 5 | \$ | 6,538,125 | \$ 26,152,502 |

| As of fiscal year ending June 30, 2022 | Deferr | ed Outflows | De | ferred Inflows |
|---|--------|-------------|----|----------------|
| Differences between expected and actual experience | \$ | 0 | \$ | (77,824,131) |
| Changes in assumptions | | 5,020,575 | | (45,300,362) |
| Net difference between projected and actual earnings in OPEB plan investments | | 35,880,595 | | 0 |
| Total | \$ | 40,901,170 | \$ | (123,124,493) |

Annual Amortization of Deferred Outflows / (Inflows)

The balances as of June 30, 2022 of the deferred outflows / (inflows) of resources will be recognized in OPEB expense in the future fiscal years as noted below.

| FYE | Balance |
|------------|--------------------|
| 2023 | \$ (26,352,227) |
| 2024 | \$ (26,752,968) |
| 2025 | \$ (21,300,182) |
| 2026 | \$ (2,669,980) |
| 2027 | \$ (4,099,839) |
| Thereafter | \$ (1,048,127) |



State of Indiana Indiana State Police GASB 74/75 Valuation for Fiscal Year Ending June 30, 2022

Sensitivity Results

The following presents the net OPEB liability as of June 30, 2022, 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%.

| As of June 30, 2022 | Net (| OPEB Liability |
|-----------------------|-------|----------------|
| 1% Decrease | \$ | 24,488,120 |
| Current Discount Rate | \$ | 6,466,849 |
| 1% Increase | \$ | (9,256,802) |

The following presents the net OPEB liability as of June 30, 2022, 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 7.5% 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 6.5% 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 8.5% decreasing by 0.5% annually to an ultimate rate of 5.5%.

| As of June 30, 2022 | Net | OPEB Liability |
|---------------------------------|-----|----------------|
| 1% Decrease | \$ | (12,175,539) |
| Current Health Care Trend Rates | \$ | 6,466,849 |
| 1% Increase | \$ | 28,536,016 |



Asset Information

State of Indiana Indiana State Police GASB 74/75 Valuation for Fiscal Year Ending June 30, 2022

Asset Information

| Asset Breakdown | FY 2020/21 | FY 2021/22 |
|------------------------------------|-------------------|-------------------|
| Assets | | |
| Cash and cash equivalents | \$ 6,449,943 | \$ 13,532,003 |
| Securities lending cash collateral | 0 | 0 |
| Total cash | \$ 6,449,943 | \$ 13,532,003 |
| Receivables | | |
| Contributions | \$ 0 | \$ 0 |
| Accrued interest | 3,330 | 0 |
| Total receivables | \$ 3,330 | \$ 0 |
| Investments | | |
| Debt Securities | \$ 172,244,986 | \$ 18,598,216 |
| Equities | 0 | 93,598,501 |
| Mutual Funds | 0 | 41,183,364 |
| Other | 0 | 0 |
| Total investments | \$ 172,244,986 | \$ 153,380,081 |
| Total assets | \$ 178,698,259 | \$ 166,912,084 |
| | | |
| Liabilities | | |
| Payables | | |
| Investment management fees | \$ 0 | \$ 0 |
| Benefits | 491,091 | 641,862 |
| Total liabilities | \$ 491,091 | \$ 641,862 |
| | | |
| Net position restricted to OPEB | \$ 178,207,168 | \$ 166,270,222 |



Asset Information

State of Indiana Indiana State Police GASB 74/75 Valuation for Fiscal Year Ending June 30, 2022

Asset Information

| Asset Reconciliation | FY 2020/21 | FY 2021/22 |
|---|---|--|
| Additions | | |
| Contributions received | | |
| Employer | \$ 22,322,322 | \$ 13,491,562 |
| Employee | 827,523 | 799,400 |
| Total contributions | \$ 23,149,845 | \$ 14,290,962 |
| Investment income | | |
| Net increase in fair value of investments | \$ 131,020 | \$ (21,354,237) |
| Other | 0 | 100,000 |
| Investment expense, other than from securities lending | 0 | 0 |
| Securities lending income | 0 | 0 |
| Securities lending expense | 0 | 0 |
| Net investment income | \$ 131,020 | \$ (21,254,237) |
| Total additions | \$ 23,280,865 | \$ (6,963,275) |
| Deductions | | |
| Benefit payments (net of retiree contributions) | \$ (3,371,070) | \$ (4,677,940) |
| Administrative expenses | (359,661) | (295,731) |
| Other | 0 | 0 |
| Total deductions | \$ (3,730,731) | \$ (4,973,671) |
| | | |
| Net increase in net position | \$ 19,550,134 | \$ (11,936,946) |
| | | |
| Net position restricted to OPEB | | |
| Beginning of year | 158,657,034 | 178,207,168 |
| End of year | \$ 178,207,168 | \$ 166,270,222 |
| Other Total deductions Net increase in net position Net position restricted to OPEB Beginning of year | \$ 0 (3,730,731) 19,550,134 158,657,034 | \$ (4,973,671 (11,936,946 178,207,168 |

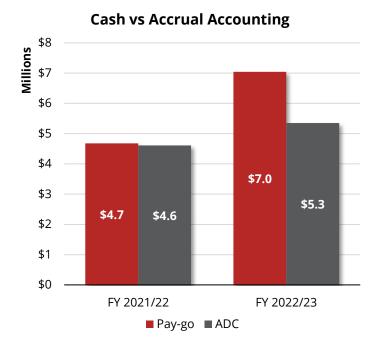


Actuarially Determined Contributions

State of Indiana Indiana State Police GASB 74/75 Valuation for Fiscal Year Ending June 30, 2022

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 2021/22 | FY 2022/23 |
|--|------------------------------------|-------------------------------------|
| Discount rate | 6.20% | 6.20% |
| Payroll growth factor used for amortization | N/A | N/A |
| Actuarial cost method | try Age Normal evel % of Salary | itry Age Normal evel % of Salary |
| Amortization type | Level Dollar | Level Dollar |
| Amortization period | 25 years | 24 years |
| | | |
| Actuarial accrued liability (AAL) – beginning of year | \$ 168,916,685 | \$ 172,737,071 |
| Actuarial value of assets – beginning of year | (178,207,168) | (166,270,222) |
| Unfunded AAL – beginning of year | \$ (9,290,483) | \$ 6,466,849 |
| | | |
| Normal Cost ⁴ | \$ 4,384,408 | \$ 4,542,948 |
| Amortization of UAAL | (697,394) | 494,194 |
| Total normal cost plus amortization | \$ 3,687,014 | \$ 5,037,142 |
| Interest to the end of year | 228,595 | 312,303 |
| Actuarially Determined Contribution – Preliminary | \$ 3,915,609 | \$ 5,349,445 |
| Expected benefit payments ⁵ | 4,677,940 | 7,042,531 |
| Actuarially Determined Contribution – Final ⁶ | \$ 4,613,003 | \$ 5,349,445 |



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.

⁴ Reduced for active employee contributions, which were \$799,400 for FY 2021/22 and assumed to be \$827,379 for FY 2022/23 (based on FY 2021/22 contribution increased by total payroll growth assumption of 3.5%).

⁵ Actual for FY 2021/22

⁶ If fully funded under the long-term expected discount rate, an entity could contribute \$0. However, for long-term sustainability purposes, Nyhart would recommend contributing the normal cost plus interest for years in which that entity is fully funded (total for employer + employee contributions). For FY 2021/22, the final recommended contribution reflects the employer only portion (the normal cost plus interest less expected active employee contributions).



Discussion of Discount Rates

State of Indiana Indiana State Police GASB 74/75 Valuation for Fiscal Year Ending June 30, 2022

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:

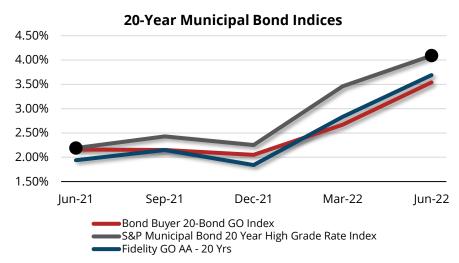
1. The long-term expected rate of return on OPEB plan investment is 6.20%. This was developed in consultation with the group's asset advisor using a building-block approach in which expected future rates of returned are developed for each major asset class. The expected future nominal rates of return as shown in the State of Indiana 2022 ISP Pension Plan valuation are shown below. Inflation is expected to be 2.00%. 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, 2022 are summarized in the following table.

| Asset Class | Target Allocation | L/T Expected ROR |
|---------------------|----------------------|------------------|
| Broad US Equity | 31% | 6.6% |
| Global ex-US Equity | 11% | 6.8% |
| Domestic Fixed | 22% | 1.8% |
| Short Duration | 4% | 1.5% |
| Cash Equivalents | 2% | 1.2% |
| Hedge Funds | 25% | 4.1% |
| Real Estate | 5% | 5.8% |

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, 2021 | June 30, 2022 |
|-------------------------------|---------------|---------------|
| Bond Buyer Go 20-Bond | 2.16% | 3.54% |
| Municipal Bond Index | 2.1070 | 3.3470 |
| S&P Municipal Bond 20-Year | 2.19% | 4.09% |
| High Grade Rate Index | 2.1970 | 4.03% |
| Fidelity 20-Year Go Municipal | 1.94% | 3.69% |
| Bond Index | 1.94% | 3.09% |
| Bond Index Range | 1.94% - 2.19% | 3.54% - 4.09% |
| Actual Discount Rate Used | 2.19% | 4.09% |

3. The final equivalent single discount rate used for this year's valuation is 6.20% as of July 1, 2020 and 6.20% as of June 30, 2021, based on the expectation that the ISP will continue to make contributions equal to the benefit payments each year plus additional prefunding contributions of \$16.1 million per year (based on actual pre-funding contributions over the past five years) until the trust is sufficient to pay all future benefits.





Summary of Key Actuarial Assumptions

State of Indiana Indiana State Police GASB 74/75 Valuation for Fiscal Year Ending June 30, 2022

For a complete summary of actuarial methods and assumptions, refer to the GASB 75 actuarial valuation report for the fiscal year ending June 30, 2021.

Measurement Date For fiscal year ending June 30, 2022, a June 30, 2022 measurement date was used.

Actuarial Valuation DateJuly 1, 2021 with results actuarially projected on a "no gain / no loss" basis to get to the June 30, 2022 measurement date. Liabilities as of July 1, 2021 are based on an actuarial valuation date of July 1, 2021.

Discount Rate 6.20% as of June 30, 2022 and July 1, 2021 for accounting disclosure purposes.

6.20% as of June 30, 2022 and July 1, 2021 for calculating Actuarially Determined Contribution.

Refer to the Discussion of Discount Rates section for more information on selection of the discount rate.

The discount rate was chosen by the plan sponsor based on the information provided in the "Discussion of Discount Rates" section above.

Payroll Growth

Payroll growth rates are based on the tables used in the Indiana State Police actuarial pension valuation as of July 1, 2020.

| Age | Pre-1987 Plan | 1987 Plan | |
|-----|---------------|-----------|--|
| 26 | 3.50% | 9.00% | |
| 31 | 3.50% | 6.50% | |
| 36+ | 3.50% | 4.00% | |

Inflation Rate

2.00% per year

The inflation rate is based on the assumptions approved from the Indiana Public Retirement System (INPRS) 2020 Experience Study and future expectations.



Summary of Key Actuarial Assumptions

State of Indiana Indiana State Police GASB 74/75 Valuation for Fiscal Year Ending June 30, 2022

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:

- 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.

| Health Care Trend Rates | FYE | Medical/Rx | FYE | Medical/Rx |
|-------------------------|------|------------|-------|------------|
| | 2023 | 7.5% | 2027 | 5.5% |
| | 2024 | 7.0% | 2028 | 5.0% |
| | 2025 | 6.5% | 2029+ | 4.5% |
| | 2026 | 6.0% | | |

Dental and vision trend rates are assumed to be 3.0% per year.

Models

ProVal

Valuation software developed by Winklevoss Technologies, LLC. This software is widely used for the purpose of performing postretirement medical valuations. We coded the plan provisions, assumptions, methods and participant data summarized in this report, and reviewed the liability and cost outputs for reasonableness. We are not aware of any weakness or limitations in the software and have determined it is appropriate for performing this valuation.

HealthMAPS Manual

Rating manual developed by WTW. Aging factors are used to develop per capita costs by age for plans with limited credible exposure to develop plan-specific factors. We are not aware of any weakness or limitations in the factors and have determined they are appropriate for performing this valuation.