

2021 COMPREHENSIVE ANNUAL FINANCIAL REPORT

For the Fiscal Year Ended June 30, 2021



INPRS is a component unit and a pension trust fund of the State of Indiana.



Prepared through the joint efforts of INPRS's team members.
Available online at www.in.gov/inprs

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INPRS is a component unit and a pension trust fund of the State of Indiana.

INPRS is a trust and an independent body corporate and politic. The system is not a department or agency of the state, but is an independent instrumentality exercising essential governmental functions (IC 5-10.5-2-3).

FUNDS MANAGED BY INPRS

ABBREVIATIONS USED

Defined Benefit

1. Public Employees' Defined Benefit Account
2. Teachers' Pre-1996 Defined Benefit Account
3. Teachers' 1996 Defined Benefit Account
4. 1977 Police Officers' and Firefighters' Retirement Fund
5. Judges' Retirement System
6. Excise, Gaming and Conservation Officers' Retirement Fund
7. Prosecuting Attorneys' Retirement Fund
8. Legislators' Defined Benefit Fund

Defined Contribution

9. Public Employees' Defined Contribution Account
10. My Choice: Retirement Savings Plan for Public Employees
11. Teachers' Defined Contribution Account
12. My Choice: Retirement Savings Plan for Teachers
13. Legislators' Defined Contribution Fund

Other Postemployment Benefit

14. Special Death Benefit Fund
15. Retirement Medical Benefits Account Plan

Custodial

16. Local Public Safety Pension Relief Fund

DB Fund

- PERF DB
TRF Pre-'96 DB
TRF '96 DB
'77 Fund
JRS
EG&C
PARF
LE DB

DC Fund

- PERF DC
PERF MC DC
TRF DC
TRF MC DC
LE DC

OPEB Fund

- SDBF
RMBA

Custodial Fund

- LPSPR

Contact Information

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2021 **COMPREHENSIVE ANNUAL FINANCIAL REPORT**

For the Fiscal Year Ended June 30, 2021

Actuarial Section

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<u>185</u>	Legislators' Defined Benefit Fund

\$3.7 Billion Unfunded Actuarial Accrued Liability

Excluding TRF Pre 96 DB

137.9 Percent ADC Contributed

For the four funds that are funded through percent of payroll contributions



Purpose of the Actuarial Section

Funding methods used for the Defined Benefit retirement plans are not governed by and do not conform to GASB Statement No. 67, so the actuary prepares two actuarial valuations for each of the pension plans. One is an actuarial valuation used for financial reporting purposes, which conforms to GASB Statement No. 67 (Financial Section) and the second is an actuarial valuation used for funding purposes (Actuarial Section), which follows generally accepted actuarial principles and the Actuarial Standards of Practice issued by the Actuarial Standards Board. Actuarial methods and assumptions utilized to prepare the two actuarial valuations are nearly identical, with the primary difference being the method of valuation of the pension assets. In 2019, INPRS published an actuarial risk analysis report that highlights many of the actuarial-related risks faced by INPRS funds. It is available on the [actuarial reports page](#) of the INPRS website. Amounts presented in the Actuarial Section may differ from the amounts presented for financial reporting purposes in the Financial Section. For defined benefit pension plans that are administered through a trust or equivalent arrangement the actuarial section references the ten-year schedule of actuarially determined and actual contributions provided as required supplementary information.

Actuarial services are provided by Cavanaugh Macdonald Consulting, LLC.

Accompanying Notes to the Actuarial Schedules

The following details are intended to clarify certain values presented in the actuarial schedules:

- The Unfunded Actuarial Accrued Liability (UAAL) is calculated using the Actuarial Value of Assets (AVA), which is different from the Net Pension Liability in the Financial Section which uses the Plan Fiduciary Net Position, also known as the Fair Value of Assets (FVA).
- Actuarial Accrued Liabilities Experience represents actual experience versus expected experience of the actuarial census assumptions. One factor was the unanticipated changes to the member census data. In JRS there was a 2.45 percent COLA, rather than the assumed COLA of 2.75 percent. In the '77 Fund there was a 1.9 percent COLA, rather than the assumed COLA of 2.1 percent.
- Covered Employee Payroll can also be found in the RSI Contribution Schedule in the Financial Section (LE DB is a closed plan with no Covered Employee Payroll).
- For years 2014 and later, the valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.
- End of year benefits are not equal to prior year end annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases on the Schedule of Retirants and Beneficiaries.
- Annual Payroll figures shown on the Schedule of Active Members Valuation Data are the anticipated pay for the one-year period following the valuation date.
- Beginning in 2018 there was a change in method impacting Average Annual Pay.

For PERF DB, TRF Pre-'96 DB, and TRF '96 DB the additional information should be considered:

- Annual benefits include amounts for members who selected annuity for their ASA (i.e. DC balance).
- Effective January 1, 2018, members can no longer use their DC balances to increase their DB payments. For the solvency test, DC account balances are treated as a separate DC plan.
- The end of year number of benefit recipients is not equal to the prior end of year number of benefit recipients plus additions less removals due to reclassifications between TRF Pre-'96 DB and TRF '96 DB.



Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

November 23, 2021

Board of Trustees
Indiana Public Retirement System
1 North Capitol, Suite 001
Indianapolis, IN 46204

Dear Members of the Board:

At your request, we performed the annual actuarial valuations of the eight defined benefit plans administered by the Indiana Public Retirement System (INPRS): the Public Employees' Retirement Fund (PERF DB), the Teachers' Pre-1996 Account (TRF Pre-'96 DB), the Teachers' 1996 Account (TRF '96 DB), the 1977 Police Officers' and Firefighters' Retirement Fund ('77 Fund), the Judges' Retirement System (JRS), the Excise, Gaming and Conservation Officers' Retirement Fund (EG&C), Prosecuting Attorneys' Retirement Fund (PARF), and the Legislators' Defined Benefit Fund (LE DB). These valuations are as of June 30, 2021, for the purpose of estimating the actuarial required contribution for the plan years ending in calendar year 2023 (either June 30 or December 31), along with the actuarial surcharge rate or equivalent amounts for applicable plans (PERF DB, TRF Pre-'96 DB, TRF '96 DB, EG&C, and LE DB) for the 2022 calendar year, and reflect the benefit and funding provisions in place on June 30, 2021.

While there were no changes to the ongoing benefit provisions of the plans, the Legislature approved a 1.00% COLA effective January 1, 2022 to be paid from the Supplemental Reserve Account for PERF DB, TRF Pre-'96 DB, TRF '96 DB, EG&C, and LE DB. Senate Enrolled Act No. 396 (SEA 396) did change the definition of the first-class officer salary for the '77 Fund, but was deemed immaterial for purposes of this actuarial valuation based on a sample of newly collected first-class officer salaries and is, therefore, not reflected in the '77 Fund valuation. There were no changes to the benefit provisions of the JRS and PARF plans. This report also reflects the updated economic assumptions approved by the Board in May 2021. Please refer to the May 7, 2021 meeting minutes for complete details. There were no changes in the demographic assumptions or actuarial methods from last year.

Basis of the Valuations

In preparing our valuation, we relied, without audit, on information (some oral and some in writing) supplied by INPRS staff. This information includes, but is not limited to, statutory provisions, member data and financial information. We did review the data to ensure that it was reasonably consistent and comparable with data from prior years. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete, our results may be different and our calculations may need to be revised.

As noted above, the valuation reflects the provisions as of June 30, 2021, including the effects of the 1.00% COLA effective January 1, 2022 for PERF, TRF Pre-'96 DB, TRF '96 DB, EG&C, and LE DB. As noted, the effects of SEA 396 were deemed to be immaterial for the '77 Fund based on data collected at the time of the valuation.

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Board of Trustees
November 23, 2021
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We certify that all costs and liabilities for the funds have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the plan and reasonable expectations); and which, in combination, offer the best estimate of anticipated experience affecting the plan. The cost determinations and the contribution policies of the Board are anticipated to systematically fund the promised benefits. Nevertheless, the emerging costs will vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions.

Actuarial Methods and Assumptions

We believe the actuarial assumptions used herein are reasonable. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix C of the valuation reports. Specifically, we presented the proposed assumptions for the 2021 valuations to the Board on February 26, 2021, and the Board subsequently adopted their use at its May 7, 2021 meeting. These assumptions are applicable to both the funding and Governmental Accounting Standards Board (GASB) Statement Number 67 valuation calculations, unless otherwise noted.

We note that as we are preparing this report, the world is in the midst of a pandemic. We have considered available information, but do not believe that there is yet sufficient data to warrant the modification of any of our assumptions. We will continue to monitor the situation and advise the Board in the future of any adjustments that we believe would be appropriate.

In order to prepare the results in this report, we have utilized appropriate actuarial models that were developed for this purpose. These models use assumptions about future contingent events along with recognized actuarial approaches to develop the needed results. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

We prepared a Risk Report for the INPRS Board in August 2019 that contains information which is relevant to PERF and should be considered part of this valuation report. Although the report was prepared using the data, methods, and assumptions of the June 30, 2018 valuation report, it is our professional opinion that the results of the risk report are applicable to the June 30, 2021 valuation report as well.

Actuarial computations presented in this report are for purposes of determining the funding rates for the Plan. The calculations in the enclosed report have been made on a basis consistent with our understanding of the Plan's funding requirements and goals as adopted by the Board and satisfy the guidance set forth in the applicable Actuarial Standards of Practice. Additionally, we have included actuarial computations for use in preparing certain reporting and disclosure requirements under Governmental Accounting Standards Board Statements Number 67 and Number 68. Determinations for purposes other than meeting these funding and disclosure requirements may be significantly different from the results contained in this report and require additional analysis.

Certification

We certify that the information presented herein accurately and fairly discloses the actuarial position of each fund and the System as a whole, based on the underlying census data and asset information provided by INPRS, using the assumptions and methods approved by the Board. This annual report, prepared as of June 30, 2021, provides data and tables that we prepared for use in the following sections of the ACFR:



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November 23, 2021
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Financial Section:

- Note 1 - Tables of Plan Membership
- Note 8 - Net Pension Liability and Actuarial Information - Defined Benefit Plans
- Schedule of Changes in Net Pension Liability and Plan Fiduciary Net Position
- Schedule of Contributions
- Schedule of Notes to Required Supplementary Information

Actuarial Section:

- Summary of Funded Status
- Historical Summary of Actuarial Valuation Results by Retirement Plan
- Summary of Actuarial Assumptions, Methods and Plan Provisions
- Analysis of Financial Experience
- Solvency Test
- Schedule of Active Member Valuation Data
- Schedule of Retirants and Beneficiaries

Statistical Section:

- Membership Data 10-Year Summary
- Ratio of Active Members to Annuitants
- Schedule of Defined Benefit Recipients by Type of Benefit Option
- Schedule of Average Benefit Payments

The consultants who worked on this assignment are pension actuaries. Cavanaugh Macdonald's advice is not intended to be a substitute for qualified legal or accounting counsel.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate, and the assumptions and methods used meet the guidance provided in the applicable Actuarial Standards of Practice. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

The calculations were completed in compliance with applicable law and the calculations for GASB disclosure, in our opinion, meet the requirements of GASB 67 and GASB 68. We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate.

We respectfully submit the following exhibits.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Brent A. Banister'.

Brent A. Banister, PhD, FSA, EA, FCA, MAAA
Chief Actuary

A handwritten signature in blue ink, appearing to read 'Edward J. Koebel'.

Edward Koebel, FCA, EA, MAAA
Chief Executive Officer

A handwritten signature in blue ink, appearing to read 'Virginia Fritz'.

Virginia Fritz, FSA, EA, FCA, MAAA
Senior Actuary

Combined Defined Benefit Funds

Summary of Funded Status ¹

The following table shows the Actuarial Accrued Liabilities and Actuarial Value of Assets as of June 30, 2021 and June 30, 2020.

(dollars in thousands)

Pre-Funded Defined Benefit Retirement Plans	Actuarial Valuation as of June 30, 2021				Actuarial Valuation as of June 30, 2020			
	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability	Actuarial Funded Status	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability	Actuarial Funded Status
PERF DB	\$ 17,563,157	\$ 14,577,352	\$ 2,985,805	83.0 %	\$ 16,281,754	\$ 13,560,460	\$ 2,721,294	83.3 %
TRF '96 DB	7,517,702	7,162,958	354,744	95.3	6,403,252	6,460,070	(56,818)	100.9
77 Fund	7,598,774	7,331,655	267,119	96.5	6,785,608	6,670,034	115,574	98.3
JRS	642,172	615,755	26,417	95.9	592,510	564,741	27,769	95.3
EG&C	180,848	165,179	15,669	91.3	163,978	149,360	14,618	91.1
PARF	117,023	76,897	40,126	65.7	107,049	69,288	37,761	64.7
LE DB	3,034	3,137	(103)	103.4	3,127	2,986	141	95.5
Total Pre-Funded DB Retirement Plans	33,622,710	29,932,933	3,689,777	89.0	30,337,278	27,476,939	2,860,339	90.6
Pay-As-You-Go DB Retirement Plan								
TRF Pre-'96 DB	14,338,188	4,546,007	9,792,181	31.7	13,968,703	3,707,851	10,260,852	26.5
Total Defined Benefit Retirement Plans	\$ 47,960,898	\$ 34,478,940	\$ 13,481,958	71.9 %	\$ 44,305,981	\$ 31,184,790	\$ 13,121,191	70.4 %

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

Combined Defined Benefit Funds, continued

Reconciliation of the Change in the Unfunded Liability¹

The following table reconciles the change in the unfunded liability from FY2020 to FY2021.

(dollars in thousands)

Defined Benefit Retirement Plans	(Gain) / Loss							
	June 30, 2020 UAAL	Normal Cost and Interest, less Expected Contributions	Expected June 30, 2021 UAAL	Actuarial Value of Assets Experience	Actuarial Accrued Liabilities Experience	Actuarial Assumption & Methodology Changes	Plan Provision Changes ²	Total UAAL (Gain) / Loss
PERF DB	\$ 2,721,294	\$ (24,744)	\$ 2,696,550	\$ (653,609)	\$ 30,329	\$ 896,589	\$ 15,946	\$ 289,255
TRF Pre-'96 DB	10,260,852	(284,248)	9,976,604	(795,694)	6,192	582,474	22,605	(184,423)
TRF '96 DB	(56,818)	30,106	(26,712)	(254,567)	96,805	536,184	3,034	381,456
77 Fund	115,574	(3,104)	112,470	(245,047)	33,631	366,065	—	154,649
JRS	27,769	(1,548)	26,221	(19,802)	(6,219)	26,217	—	196
EG&C	14,618	154	14,772	(8,566)	(1,099)	10,403	159	897
PARF	37,761	(1,047)	36,714	(2,504)	(287)	6,203	—	3,412
LE DB	141	(165)	(24)	(127)	(49)	90	7	(79)
Total INPRS	\$ 13,121,191	\$ (284,596)	\$ 12,836,595	\$ (1,979,916)	\$ 159,303	\$ 2,424,225	\$ 41,751	\$ 645,363
								\$ 13,481,958

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

² Plan Provision Changes include:

HEA 1001-2021 granted a 1% COLA effective January 1, 2022 for PERF DB, TRF Pre-'96 DB, TRF '96 DB, EG&C, and LE DB. Plan Provision Changes shown represent the additional liability this 1% COLA generated over the previous COLA assumption.

Combined Defined Benefit Funds, continued

10-Year Schedule of Employer Counts

For the Years Ended June 30

The following table shows the historical number of employers by fund.

	¹ Total DB	PERF DB	TRF Pre-'96 DB	² TRF '96 DB	² Total TRF DB	77 Fund	JRS	EG&C	PARF	LE DB
2021	1,280	1,223	335	383	N/A	175	1	1	1	1
2020	1,267	1,214	336	376	N/A	174	1	1	1	1
2019	1,244	1,187	345	373	N/A	168	1	1	1	1
2018	1,244	1,187	345	373	N/A	168	1	1	1	1
2017	1,234	1,183	341	368	N/A	167	1	1	1	1
2016	1,224	1,177	337	362	N/A	165	1	1	1	1
2015	1,212	1,167	339	360	N/A	165	1	1	1	1
2014	1,175	1,126	340	363	N/A	162	1	1	1	1
2013 ³	1,171	1,121	N/A	N/A	365	161	1	1	1	1
2012 ³	1,170	1,122	N/A	N/A	364	162	1	1	1	1

¹ Sum of employers does not equal total, as an employer may participate in multiple retirement funds.

² Prior to 2014 participating employers for TRF were not split between TRF Pre-'96 DB and TRF '96 DB.

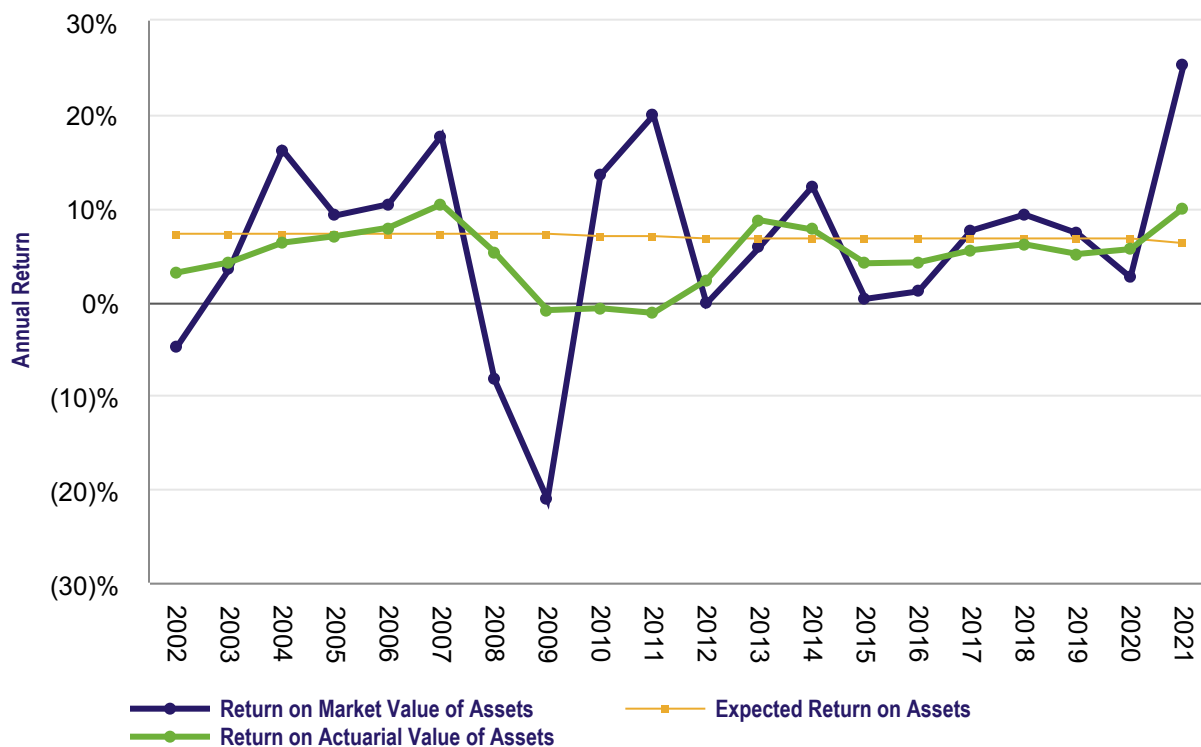
³ The Total was adjusted to treat the State and its component units as one employer.

Combined Defined Benefit Funds, continued

Demonstration of Asset Smoothing

Actuarial Valuation as of June 30 ¹

INPRS's funding policy smooths asset gains and losses to form an actuarial value of assets. The graph below demonstrates the reduction in volatility from this smoothing by comparing the actuarial value of assets to the historical rates of return for the market value of assets and expected return for PERF DB. PERF DB is shown as a representative example of all defined benefit funds.



¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

Public Employees' Defined Benefit Account

Historical Summary of Actuarial Valuation Results

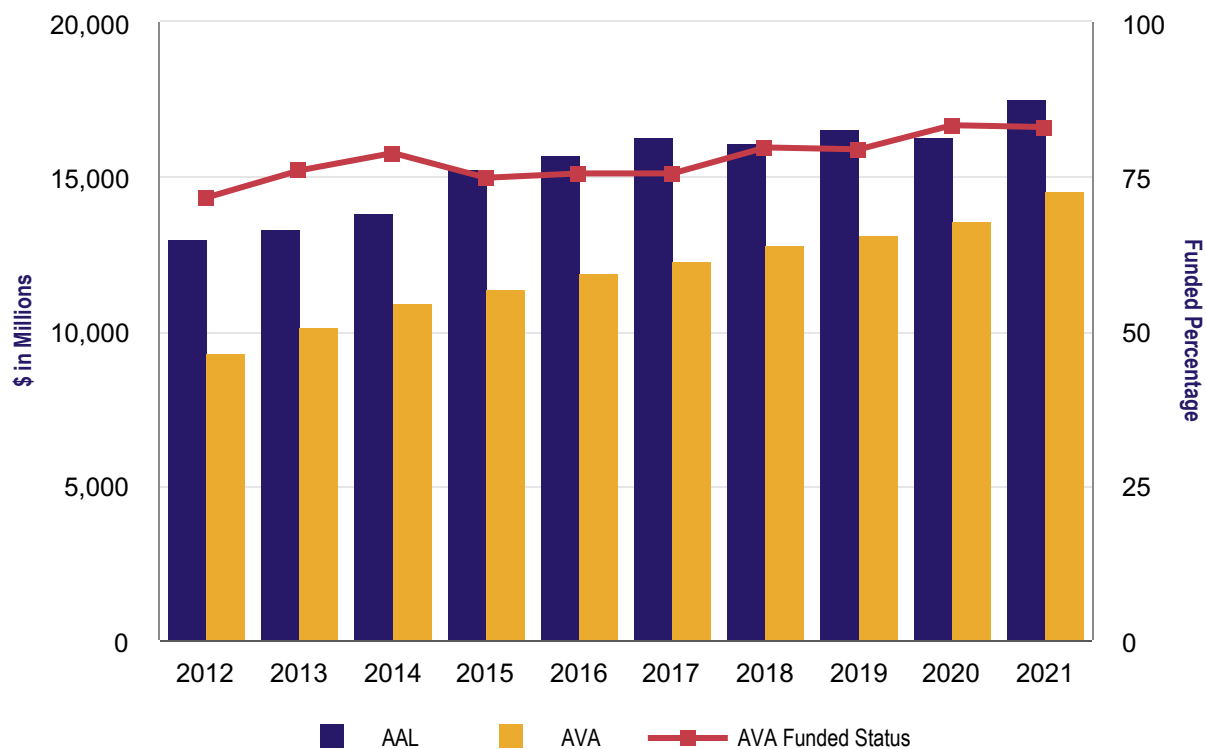
Actuarial Valuation as of June 30 ¹

The following table shows the history of the Unfunded Liability as a percentage of Covered Employee Payroll for PERF DB.

(dollars in thousands)

	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability (AAL-AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll	Unfunded Liability as a percentage of Covered Employee Payroll
2021	\$17,563,157	\$14,577,352	\$2,985,805	83.0%	\$5,482,242	54.5%
2020	16,281,754	13,560,460	2,721,294	83.3	5,380,843	50.6
2019	16,576,060	13,157,802	3,418,258	79.4	5,205,243	65.7
2018	16,091,373	12,823,930	3,267,443	79.7	5,083,131	64.3
2017	16,335,253	12,327,958	4,007,295	75.5	4,997,555	80.2
2016	15,752,055	11,896,167	3,855,888	75.5	4,868,709	79.2
2015	15,263,395	11,414,710	3,848,685	74.8	4,804,145	80.1
2014	13,880,722	10,939,760	2,940,962	78.8	4,896,635	60.1
2013	13,349,578	10,151,181	3,198,397	76.0	4,700,000	68.1
2012	13,034,791	9,338,776	3,696,015	71.6	4,550,000	81.2

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.



Public Employees' Defined Benefit Account, continued

Summary of Actuarial Assumptions, Actuarial Methods, and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2021 valuation of the Public Employees' Defined Benefit Account were adopted by the INPRS Board in May 2021. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2014 through June 30, 2019, and were first used in the June 30, 2020 valuation. The INPRS Board adopted a funding policy in April 2014, and the policy was last updated in October 2018. The funding policy is available online at: https://www.in.gov/inprs/files/INPRS_Funding_Policy.pdf.

Changes in Actuarial Assumptions

The Interest Rate / Investment Return assumption changed from 6.75 percent to 6.25 percent.

The inflation assumption changed from 2.25 percent to 2.00 percent.

The Future Salary Scale assumption changed from 2.75% - 8.75% to 2.65% - 8.65%.

Changes in Actuarial Methods

There were no changes to the actuarial methods during the fiscal year.

Changes in Plan Provisions

HEA 1001-2021 granted a 1% COLA effective January 1, 2022.

Actuarial Assumptions

Actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting, except where noted.

Economic Assumptions

Interest Rate / Investment Return:

Funding	6.25 percent (net of administrative and investment expenses)
Accounting & Financial Reporting	6.25 percent (net of investment expenses)

Inflation: 2.00 percent per year

Cost of Living Increases: 0.4 percent beginning on January 1, 2024
0.5 percent beginning on January 1, 2034
0.6 percent beginning on January 1, 2039

Public Employees' Defined Benefit Account, continued

Future Salary Increases:

Based on 2015-2019 experience.

Service	Wage Inflation	Productivity, Merit, and Promotion	Total Individual Salary Growth
0	2.65 %	6.00 %	8.65 %
1	2.65	5.00	7.65
2	2.65	4.00	6.65
3	2.65	3.00	5.65
4	2.65	2.50	5.15
5	2.65	2.00	4.65
6	2.65	1.75	4.40
7	2.65	1.50	4.15
8	2.65	1.25	3.90
9	2.65	1.00	3.65
10	2.65	0.75	3.40
11	2.65	0.50	3.15
12	2.65	0.25	2.90
13+	2.65	—	2.65

Demographic Assumptions: Based on 2015-2019 Experience

Pub-2010 Public Retirement Plans Mortality Tables (Amount-Weighted) with a fully generational projection of mortality improvements using SOA Scale MP-2019.

Mortality (Healthy):	General Employee table with a 3 year set forward for males and a 1 year set forward for females.
Mortality (Retirees):	General Retiree table with a 3 year set forward for males and a 1 year set forward for females.
Mortality (Beneficiaries):	Contingent Survivor table with no set forward for males and a 2 year set forward for females.
Mortality (Disabled):	General Disabled table with a 140% load.

Public Employees' Defined Benefit Account, continued

Retirement:

Age	Eligible for Reduced Benefit	Eligible for Unreduced Benefit
50-54	4 %	N/A
55	5	14 %
56-59	5	10
60	N/A	12
61	N/A	16
62	N/A	22
63	N/A	19
64	N/A	24
65-74	N/A	30
75+	N/A	100

Benefit Commencement Timing:

Active Members

If eligible for a reduced early retirement benefit upon termination from employment, 30 percent commence immediately and 70 percent defer to earliest unreduced retirement age.

If eligible for an unreduced retirement benefit upon termination from employment, 100 percent commence immediately.

Terminated Vested Members

100 percent defer to earliest unreduced retirement age. If currently eligible for an unreduced retirement benefit, 100 percent commence immediately.

Termination:

PSD, Salary <\$20,000			PSD, Salary <\$20,000		
Age	Male	Female	Age	Male	Female
15-22	34 %	40 %	35	25 %	22 %
23	34	38	36	25	21
24	34	36	37	25	20
25	34	34	38	25	19
26	34	32	39	25	18
27	34	30	40	24	17
28	34	29	41	24	16
29	34	28	42	24	15
30	29	27	43	24	14
31	29	26	44	24	13
32	29	25	45-49	21	12
33	29	24	50-60	17	12
34	29	23	61+	14	12

Public Employees' Defined Benefit Account, continued

Termination, continued:

Service	State PSD, Salary >\$20,000		Service	State PSD, Salary >\$20,000	
	Unisex	Unisex		Unisex	Unisex
0	24.00 %	18.00 %	14	5.50	5.50
1	20.00	16.00	15	5.25	5.25
2	18.00	14.00	16	5.00	5.00
3	16.00	12.00	17	4.75	4.75
4	14.00	10.00	18	4.50	4.50
5	12.00	8.00	19	4.25	4.25
6	11.00	7.50	20	4.00	4.00
7	10.00	7.00	21	4.00	3.75
8	9.00	6.50	22	4.00	3.50
9	8.00	6.50	23	4.00	3.25
10	7.00	6.50	24	4.00	3.00
11	6.50	6.25	25	4.00	3.00
12	6.00	6.00	26	4.00	3.00
13	5.75	5.75	27+	1.00	3.00

Disability:

Age	Sample Rates	
	Male	Female
20	0.004 %	0.003 %
25	0.008	0.006
30	0.014	0.010
35	0.024	0.018
40	0.042	0.032
45	0.080	0.061
50	0.160	0.124
55+	0.300	0.200

Spouse/Beneficiary: 80 percent of male members and 65 percent of female members are assumed to be married and or to have a dependent beneficiary. Male members are assumed to be three (3) years older than their spouses and female members are assumed to be two (2) years younger than their spouses.

Form of Payment 100 percent of members are assumed to elect the normal form of benefit payment, a single life annuity with a five-year certain period.

Miscellaneous Adjustments: For active members, the Average Annual Compensation was increased by \$200 for additional wages received upon termination, such as severance or unused sick leave.

Public Employees' Defined Benefit Account, continued

Actuarial Methods

Funding uses the same Actuarial Methods as accounting and financial reporting, except where noted.

Actuarial Cost Method: Entry Age Normal -- Level Percent of Payroll

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

This method produces a cost of future benefit accruals that is a level percent of pay over time, which is more desirable for employers from a budgeting standpoint. Other actuarial cost methods are more volatile in their allocation of cost for each year of member service.

Amortization Method: For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 20-year period with level payments each year. A new gain or loss base is established each year on the additional gain or loss during that year and that base is amortized over a new 20-year period. However, when the plan is at or above 100 percent funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payment each year. Effective June 30, 2018, the bases are calculated without regard to the COLA provisions. The purpose of the method is to give a smooth progression of the costs from year-to-year and, at the same time, provide for an orderly funding of the unfunded liabilities.

For accounting and financial reporting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants. Gains and losses occurring from investment experience different than assumed are amortized into expense over a five-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.

Data Measurement Date: Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.

COLA Surcharge: The COLA Surcharge is developed by determining the assets needed at the start of the next biennium to fund the post-retirement benefit increases anticipated to be granted in that biennium. This amount is divided by the present value of expected payroll over which the accumulations will occur.

Asset Valuation Method: Funding uses the Actuarial Value of Assets (AVA), which is equal to a five-year smoothing of gains and losses on the Fair Value of Assets (FVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the FVA.

Accounting and financial reporting uses the FVA in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section, the actuarial valuation at <https://www.in.gov/inprs/actuarialvaluation.htm>, or the applicable Indiana Code at <http://iga.in.gov/>.

Public Employees' Defined Benefit Account, continued

Analysis of Financial Experience

(dollars in thousands)	UAAL
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2020	\$2,721,294
Normal Cost and Interest, less Expected Contributions	(24,744)
Expected UAAL: June 30, 2021	2,696,550
UAAL (Gain) / Loss	
Actuarial Value of Assets Experience	(653,609)
Actuarial Accrued Liabilities Experience ¹	30,329
Actuarial Assumption & Methodology Changes	896,589
Plan Provision Changes ²	15,946
Total UAAL (Gain) / Loss	289,255
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2021	\$2,985,805

Solvency Test ¹

The solvency test compares aggregate actuarial liabilities by various categories with the plan's assets.

(dollars in thousands)	Actuarial Accrued Liabilities				Portion of Actuarial Accrued Liabilities Covered by Assets		
Actuarial Valuation as of June 30	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2021	\$8,655,768	\$8,907,389	\$17,563,157	\$14,577,352	100.0%	66.5%	83.0%
2020	8,050,791	8,230,963	16,281,754	13,560,460	100.0	66.9	83.3
2019	8,068,490	8,507,570	16,576,060	13,157,802	100.0	59.8	79.4
2018	7,768,231	8,323,142	16,091,373	12,823,930	100.0	60.7	79.7
2017	7,834,962	8,500,291	16,335,253	12,327,958	100.0	52.9	75.5
2016	7,595,089	8,156,966	15,752,055	11,896,167	100.0	52.7	75.5
2015	6,981,308	8,282,087	15,263,395	11,414,710	100.0	53.5	74.8
2014	6,250,902	7,629,820	13,880,722	10,939,760	100.0	61.5	78.8
2013	6,367,819	6,981,759	13,349,578	10,151,181	100.0	54.2	76.0
2012	5,895,779	7,139,012	13,034,791	9,338,776	100.0	48.2	71.6

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

² HEA 1001-2021 granted a 1% COLA effective January 1, 2022.

Public Employees' Defined Benefit Account, continued

Schedule of Active Members Valuation Data

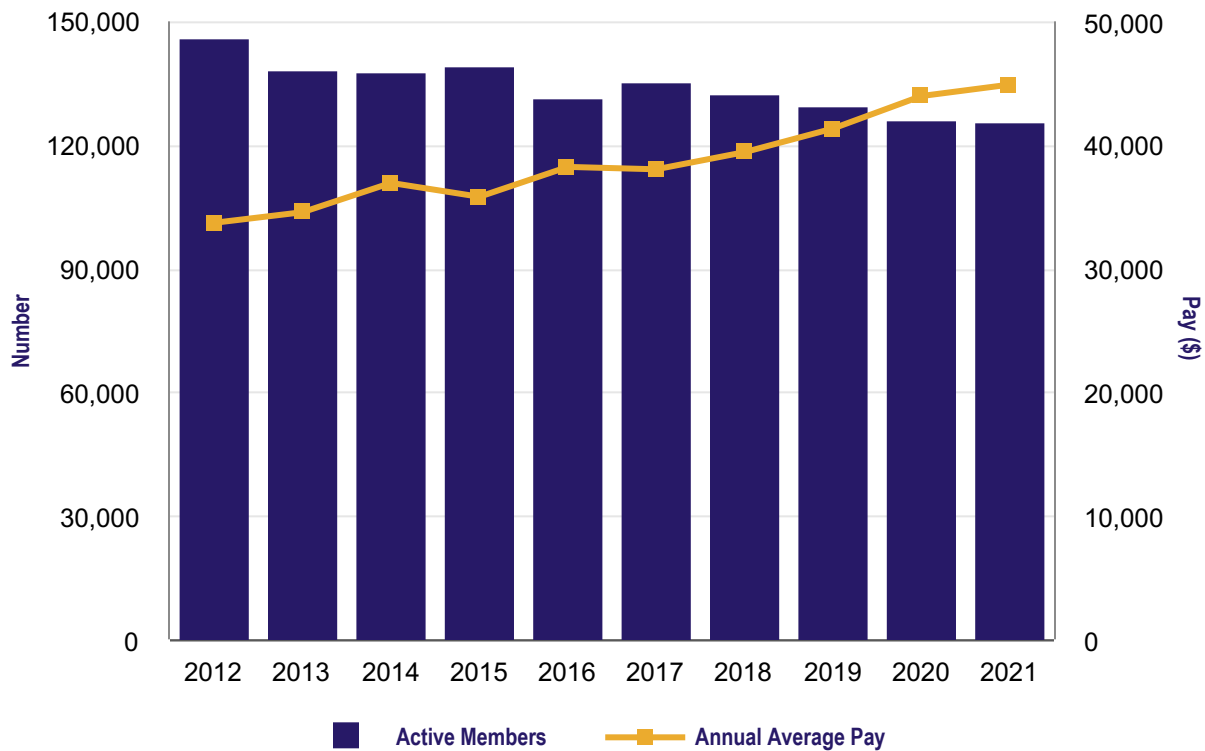
Actuarial Valuation as of June 30 ¹

(dollars in thousands - except annual average pay)

	Active Members	Annual Payroll	Annual Average Pay	Annual Percent Increase / (Decrease) in Average Pay
2021	125,386	\$5,627,522	\$44,882	2.1%
2020	125,780	5,528,816	43,956	6.4
2019	129,099	5,335,374	41,328	4.8
2018	132,181	5,210,209	39,417	3.6
2017	134,909	5,130,437	38,029	(0.5)
2016	131,178	5,014,012	38,223	6.8
2015	138,660	4,964,813	35,806	(3.0)
2014	137,567	5,080,092	36,928	6.9
2013	137,937	4,766,910	34,559	2.5
2012	145,519	4,904,052	33,700	3.5

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

Total Number of Active Members Per Year and Annual Average Pay



Public Employees' Defined Benefit Account, continued

Schedule of Retirants and Beneficiaries

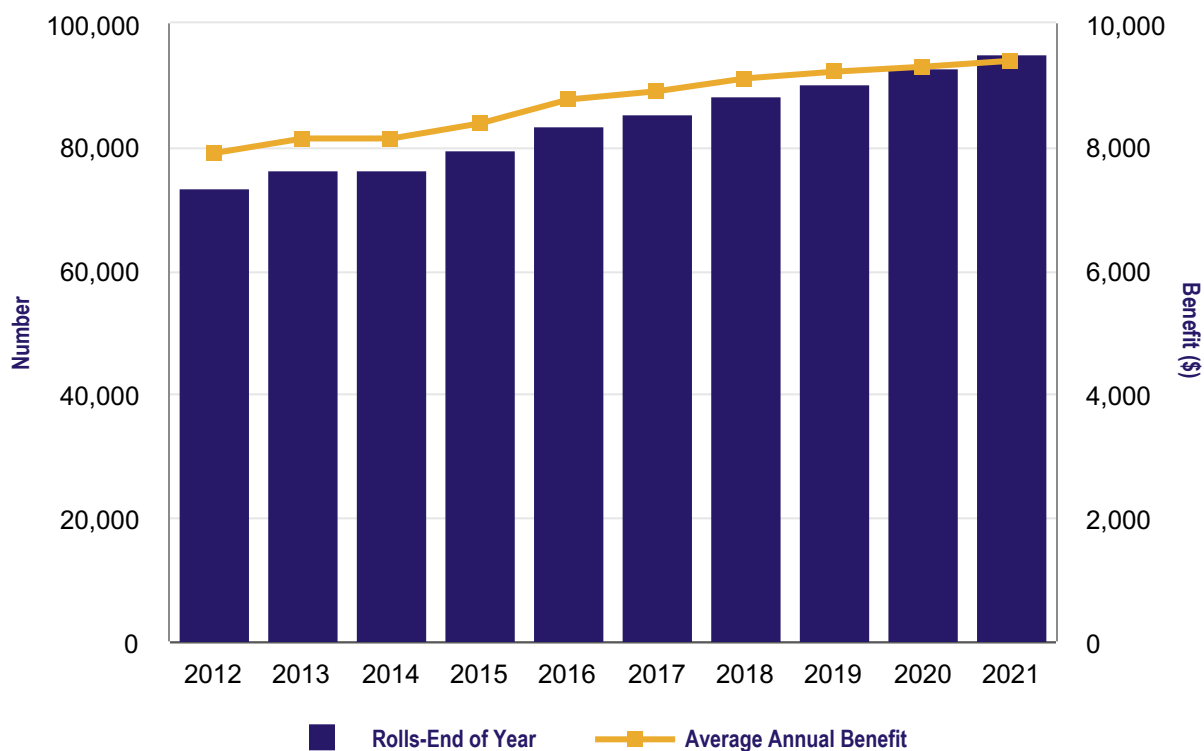
Actuarial Valuation as of June 30 ¹

(dollars in thousands -- except average annual benefit)

	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit	Percent Increase / (Decrease) in Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits			
2021	5,502	\$55,399	3,087	\$21,538	94,851	\$891,168	3.7%	\$9,395	1.0%
2020	5,194	50,481	2,690	18,520	92,436	859,427	3.7	9,298	0.9
2019	5,077	50,319	3,135	21,565	89,932	829,035	3.4	9,218	1.2
2018	5,249	55,236	2,389	15,609	87,990	801,551	5.8	9,110	2.3
2017	4,855	49,980	2,913	18,808	85,130	757,851	3.9	8,902	1.5
2016	6,478	78,487	2,488	15,597	83,188	729,366	9.9	8,768	4.6
2015	5,489	60,538	2,241	14,107	79,198	663,767	7.4	8,381	3.0
2014	—	—	—	—	75,950	617,977	—	8,137	—
2013	5,231	55,523	2,273	13,898	75,950	617,977	7.2	8,137	3.0
2012	4,751	49,766	2,139	12,540	72,992	576,678	6.8	7,901	3.0

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit



Teachers' Pre-1996 Defined Benefit Account

Historical Summary of Actuarial Valuation Results

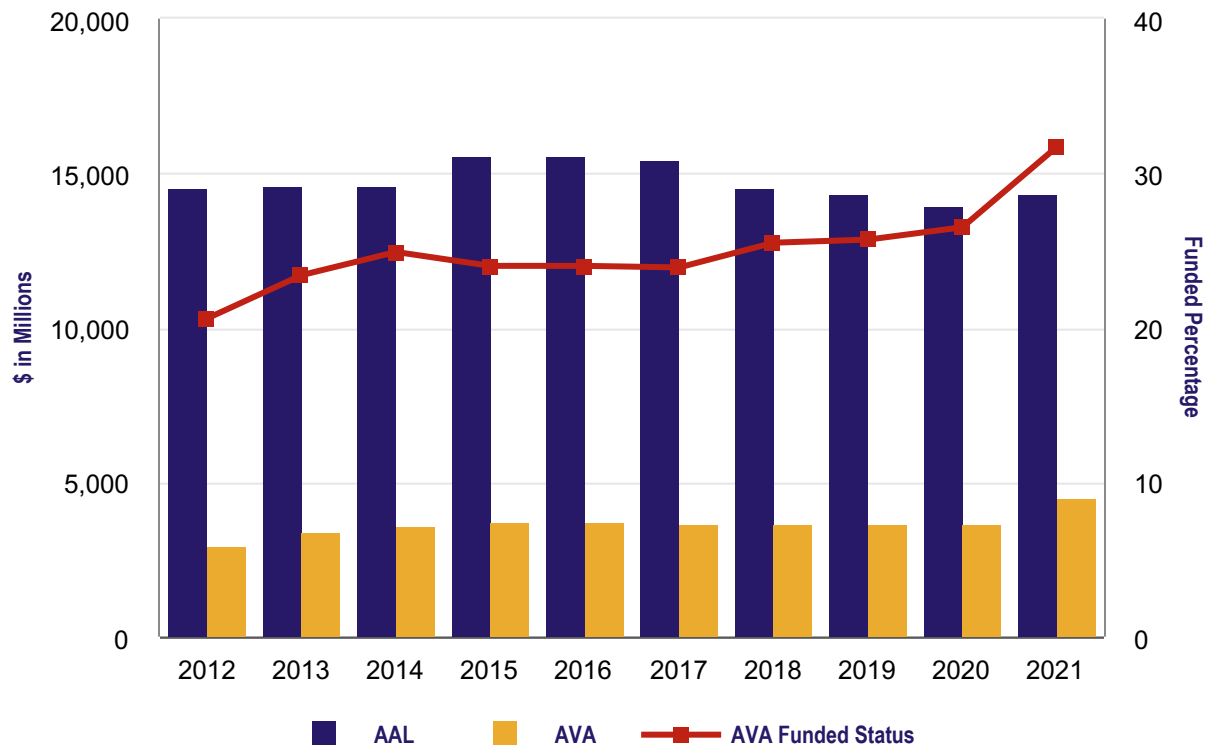
Actuarial Valuation as of June 30 ¹

The following table shows the history of the Unfunded Liability as a percentage of Covered Employee Payroll for TRF Pre-'96 DB.

(dollars in thousands)

	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability (AAL-AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll	Unfunded Liability as a percentage of Covered Employee Payroll
2021	\$14,338,188	\$4,546,007	\$9,792,181	31.7%	\$625,812	1,564.7%
2020	13,968,703	3,707,851	10,260,852	26.5	693,965	1,478.6
2019	14,389,164	3,694,211	10,694,953	25.7	753,355	1,419.6
2018	14,583,189	3,721,323	10,861,866	25.5	824,770	1,317.0
2017	15,494,539	3,708,870	11,785,669	23.9	912,685	1,291.3
2016	15,575,072	3,743,861	11,831,211	24.0	989,093	1,196.2
2015	15,596,291	3,750,183	11,846,108	24.0	1,074,827	1,102.1
2014	14,639,876	3,643,011	10,996,865	24.9	1,262,828	870.8
2013	14,649,549	3,422,274	11,227,275	23.4	1,383,428	811.6
2012	14,547,939	3,004,031	11,543,908	20.6	1,637,066	705.1

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.



Teachers' Pre-1996 Defined Benefit Account, continued

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2021 valuation of the Teachers' Pre-1996 Defined Benefit Account were adopted by the INPRS Board in May 2021. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2014 through June 30, 2019, and were first used in the June 30, 2020 valuation. The INPRS Board adopted a funding policy in April 2014, and the policy was last updated in October 2018. The funding policy is available online at:

https://www.in.gov/inprs/files/INPRS_Funding_Policy.pdf.

Changes in Actuarial Assumptions

The Interest Rate / Investment Return assumption changed from 6.75 percent to 6.25 percent.

The inflation assumption changed from 2.25 percent to 2.00 percent.

The Future Salary Scale assumption changed from 2.75% - 12.00% to 2.65% - 11.90%.

Changes in Actuarial Methods

There were no changes to the actuarial methods during the fiscal year.

Changes in Plan Provisions

HEA 1001-2021 granted a 1% COLA effective January 1, 2022.

Actuarial Assumptions

Actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting, except where noted.

Economic Assumptions

Interest Rate / Investment Return:

Funding	6.25 percent (net of administrative and investment expenses)
Accounting & Financial Reporting	6.25 percent (net of investment expenses)

Inflation: 2.00 percent per year

Cost of Living Increases: 0.4 percent beginning on January 1, 2024
0.5 percent beginning on January 1, 2034
0.6 percent beginning on January 1, 2039

Future Salary Increases: Based on 2015-2019 experience. Illustrative rates shown below:

Years of Service	Merit	Wage Inflation	Total Individual Salary Growth
0-1	9.25 %	2.65 %	11.90 %
2	4.25	2.65	6.90
3	2.75	2.65	5.40
4-14	1.75	2.65	4.40
15	1.50	2.65	4.15
16	1.25	2.65	3.90
17	1.00	2.65	3.65
18	0.75	2.65	3.40
19	0.50	2.65	3.15
20	0.25	2.65	2.90
21+	—	2.65	2.65

Teachers' Pre-1996 Defined Benefit Account, continued

Demographic Assumptions: Based on 2015-2019 Experience

Pub-2010 Public Retirement Plans Mortality Tables (Amount-Weighted) with a fully generational projection of mortality improvements using SOA Scale MP-2019.

Mortality (Healthy):	Teacher Employee table with a 1 year set forward for males and a 1 year set forward for females.
Mortality (Retirees):	Teacher Retiree table with a 1 year set forward for males and a 1 year set forward for females.
Mortality (Beneficiaries):	Contingent Survivor table with no set forward for males and a 2 year set forward for females.
Mortality (Disabled):	General Disabled table with a 140% load.

Retirement:

Age	Eligible for Reduced Retirement	Eligible for Unreduced Retirement
	Probability	Probability
50-53	2.0 %	N/A
54	5.0	N/A
55-56	5.0	15.0 %
57	6.5	15.0
58	8.0	15.0
59	12.0	15.0
60	N/A	15.0
61	N/A	20.0
62	N/A	25.0
63	N/A	30.0
64	N/A	35.0
65-74	N/A	40.0
75+	N/A	100.0

30% of active members are assumed to retire at their earliest retirement date. 70% of active members are assumed to defer to their earliest unreduced retirement date.

Inactive vested members are assumed to commence their retirement benefit at their earliest unreduced retirement date.

Teachers' Pre-1996 Defined Benefit Account, continued

Termination:

Years of Service	Service Based	
	Male	Female
0	15.00 %	12.50 %
1	13.00	11.50
2	11.00	10.50
3	9.00	9.50
4	8.00	8.50
5	7.00	7.50
6	6.00	6.50
7	5.00	5.50
8	4.50	5.00
9	4.00	4.50
10	3.75	4.00
11	3.50	3.50
12	3.25	3.25
13	3.00	3.00
14	2.75	2.75
15	2.50	2.50
16+	2.25	2.25

Disability:

Age	Sample Rates
<=36	0.005 %
40	0.009
45	0.014
50	0.034
55	0.061
56-65	0.070
66+	0.000

Spouse / Beneficiary:

80% of male members and 75% of female members are assumed to be married. Males are assumed to be three (3) years older and females are assumed to be two (2) years younger than their spouses.

Form of Payment

100% of members are assumed to elect the normal form of benefit payment, a single life annuity with a five-year certain period.

Miscellaneous Adjustments:

For active members, the Average Annual Compensation was increased by \$200 for additional wages received upon termination, such as severance or unused sick leave.

Teachers' Pre-1996 Defined Benefit Account, continued

Actuarial Methods

Funding uses the same Actuarial Methods as accounting and financial reporting, except where noted.

Actuarial Cost Method: Entry Age Normal – Level Percent of Payroll

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

This method produces a cost of future benefit accruals that is a level percent of pay over time, which is desirable for employers from a budgeting standpoint. Other actuarial cost methods are more volatile in their allocation of cost for each year of member service.

Actuarially Determined Contribution:

The Fund's actuarially determined contribution is based on the approach set out in IC - 5.10.4-2-5 that the Indiana Legislature has followed in actually appropriating funds. The basic contribution is the lesser of 3% above the prior year's basic contribution and the anticipated base benefit payments for the year. However, the contributed funds should not result in the funded ratio exceeding 100%.

Amortization Method:

For accounting and financial reporting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants. Gains and losses occurring from investment experience different than assumed are amortized into expense over a five-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.

Data Measurement Date:

Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.

COLA Funding Amount:

The COLA Funding Amount is developed by determining the assets needed at the start of the next biennium to fund the post-retirement benefit increases anticipated to be granted in that biennium. This amount is divided by a present value factor to determine the needed annual contribution.

Asset Valuation Method:

Funding uses the Actuarial Value of Assets (AVA), which is equal to a five-year smoothing of gains and losses on the Fair Value of Assets (FVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the FVA.

Accounting and financial reporting uses the FVA in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section, the actuarial valuation at <https://www.in.gov/inprs/actuarialvaluation.htm>, or the applicable Indiana Code at <http://iga.in.gov/>.

Teachers' Pre-1996 Defined Benefit Account, continued

Analysis of Financial Experience

(dollars in thousands)	UAAAL
Unfunded Actuarial Accrued Liability (UAAAL): June 30, 2020	\$10,260,852
Normal Cost and Interest, less Expected Contributions	(284,248)
Expected UAAAL: June 30, 2021	9,976,604
UAAAL (Gain) / Loss	
Actuarial Value of Assets Experience	(795,694)
Actuarial Accrued Liabilities Experience ¹	6,192
Actuarial Assumption & Methodology Changes	582,474
Plan Provision Changes ²	22,605
Total UAAAL (Gain) / Loss	(184,423)
Unfunded Actuarial Accrued Liability (UAAAL): June 30, 2021	\$9,792,181

Solvency Test ¹

The solvency test compares aggregate actuarial liabilities by various categories with the plan's assets.

(dollars in thousands)	Actuarial Accrued Liabilities				Portion of Actuarial Accrued Liabilities Covered by Assets		
Actuarial Valuation as of June 30	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2021	\$11,501,456	\$2,836,732	\$14,338,188	\$4,546,007	39.5%	—%	31.7%
2020	11,053,143	2,915,560	13,968,703	3,707,851	33.5	—	26.5
2019	11,245,919	3,143,245	14,389,164	3,694,211	32.8	—	25.7
2018	11,160,975	3,422,214	14,583,189	3,721,323	33.3	—	25.5
2017	11,653,674	3,840,865	15,494,539	3,708,870	31.8	—	23.9
2016	11,358,156	4,216,916	15,575,072	3,743,861	33.0	—	24.0
2015	10,488,066	5,108,225	15,596,291	3,750,183	35.8	—	24.0
2014	9,686,391	4,953,485	14,639,876	3,643,011	37.6	—	24.9
2013	10,079,101	4,570,448	14,649,549	3,422,274	34.0	—	23.4
2012	9,260,069	5,287,870	14,547,939	3,004,031	32.4	—	20.6

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

² HEA 1001-2021 granted a 1% COLA effective January 1, 2022.

Teachers' Pre-1996 Defined Benefit Account, continued

Schedule of Active Members Valuation Data

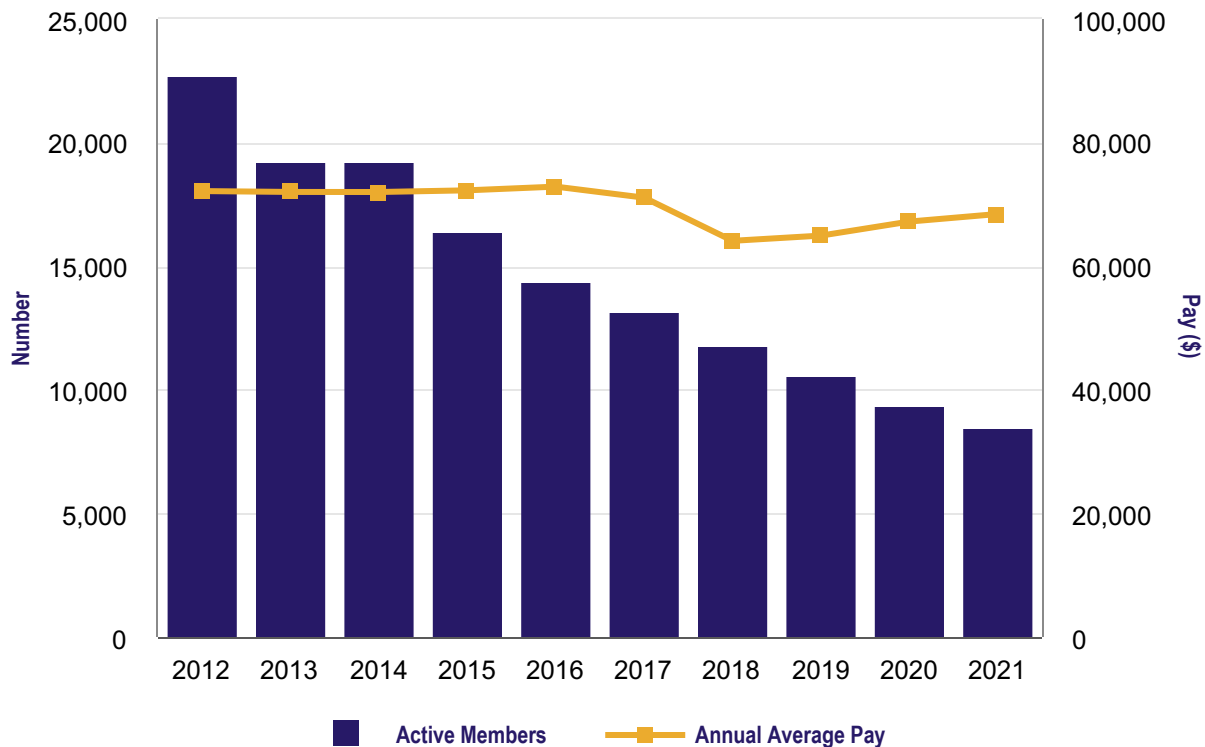
Actuarial Valuation as of June 30 ¹

(dollars in thousands - except annual average pay)

	Active Members	Annual Payroll	Annual Average Pay	Annual Percent Increase / (Decrease) In Average Pay
2021	8,375	\$573,239	\$68,446	1.8%
2020	9,338	627,740	67,224	3.5
2019	10,497	681,806	64,952	1.3
2018	11,710	750,691	64,107	(9.8)
2017	13,128	933,278	71,091	(2.4)
2016	14,327	1,044,096	72,876	0.8
2015	16,310	1,178,846	72,277	0.4
2014	19,210	1,383,242	72,006	—
2013	19,210	1,383,428	72,016	(0.2)
2012	22,688	1,637,066	72,156	1.1

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

Total Number of Active Members Per Year and Annual Average Pay



Teachers' Pre-1996 Defined Benefit Account, continued

Schedule of Retirants and Beneficiaries

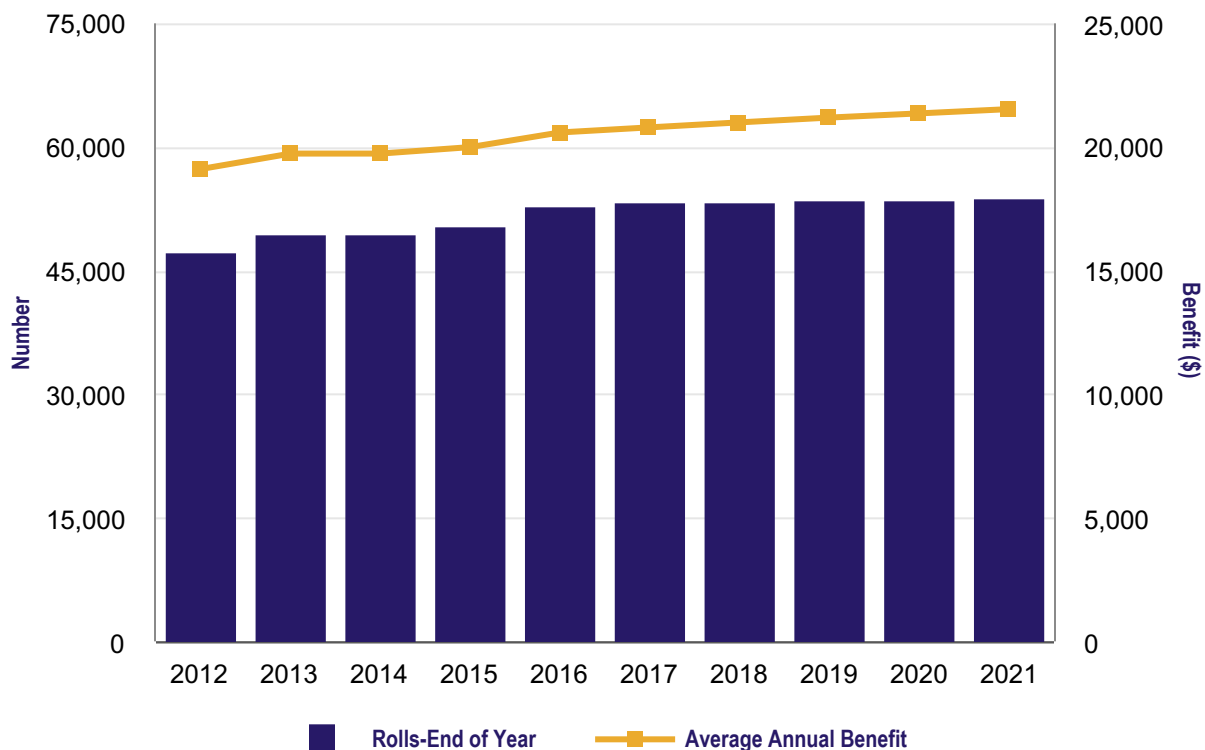
Actuarial Valuation as of June 30 ¹

(dollars in thousands -- except average annual benefit)

	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit	Percent Increase / (Decrease) in Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits			
2021	1,315	\$ 32,981	1,193	\$ 19,207	53,537	\$ 1,152,667	1.0 %	\$ 21,530	0.8 %
2020	1,195	29,710	1,278	20,560	53,415	1,140,771	0.6	21,357	0.8
2019	1,514	37,102	1,243	19,005	53,498	1,133,528	1.4	21,188	0.9
2018	1,483	33,330	1,496	20,240	53,227	1,117,463	0.9	20,994	1.0
2017	1,953	47,305	1,288	18,257	53,240	1,106,961	2.3	20,792	1.0
2016	3,466	95,994	1,105	14,677	52,575	1,082,306	7.8	20,586	3.0
2015	1,886	50,261	1,017	14,293	50,214	1,003,910	3.1	19,993	1.3
2014	—	93,605	—	14,524	49,345	973,635	—	19,731	—
2013	3,422	93,605	1,077	14,524	49,345	973,635	8.4	19,731	3.3
2012	2,541	63,923	962	12,216	47,000	898,006	5.6	19,107	2.0

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit



Teachers' 1996 Defined Benefit Account

Historical Summary of Actuarial Valuation Results

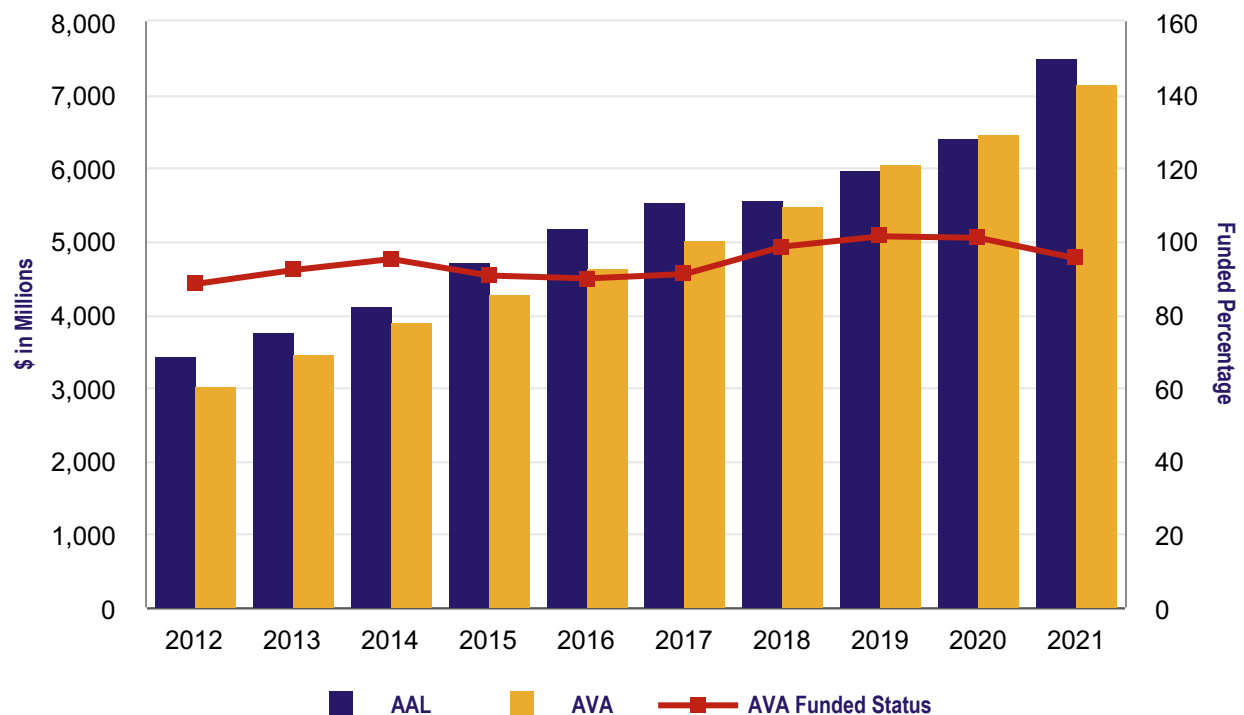
Actuarial Valuation as of June 30 ¹

The following table shows the history of the Unfunded Liability as a percentage of Covered Employee Payroll for TRF '96 DB.

(dollars in thousands)

	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability (AAL-AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll	Unfunded Liability as a percentage of Covered Employee Payroll
2021	\$7,517,702	\$7,162,958	\$354,744	95.3%	\$3,634,649	9.8%
2020	6,403,252	6,460,070	(56,818)	100.9	3,465,728	(1.6)
2019	5,980,426	6,056,317	(75,891)	101.3	3,257,918	(2.3)
2018	5,563,264	5,478,482	84,782	98.5	3,129,070	2.7
2017	5,536,094	5,035,991	500,103	91.0	3,020,463	16.6
2016	5,174,317	4,648,297	526,020	89.8	2,881,397	18.3
2015	4,734,777	4,290,258	444,519	90.6	2,742,187	16.2
2014	4,116,264	3,914,503	201,761	95.1	2,598,115	7.8
2013	3,757,444	3,461,904	295,540	92.1	2,442,496	12.1
2012	3,438,970	3,037,116	401,854	88.3	2,400,000	16.7

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.



Teachers' 1996 Defined Benefit Account, continued

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2021 valuation of the Teachers' 1996 Defined Benefit Account were adopted by the INPRS Board in May 2021. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2014 through June 30, 2019, and were first used in the June 30, 2020 valuation. The INPRS Board adopted a funding policy in April 2014, and the policy was last updated in October 2018. The funding policy is available online at:

https://www.in.gov/inprs/files/INPRS_Funding_Policy.pdf.

Changes in Actuarial Assumptions

The Interest Rate / Investment Return assumption changed from 6.75 percent to 6.25 percent.

The inflation assumption changed from 2.25 percent to 2.00 percent.

The Future Salary Scale assumption changed from 2.75% - 12.00% to 2.65% - 11.90%.

Changes in Actuarial Methods

There were no changes to the actuarial methods during the fiscal year.

Changes in Plan Provisions

HEA 1001-2021 granted a 1% COLA effective January 1, 2022.

Actuarial Assumptions

Actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting, except where noted.

Economic Assumptions

Interest Rate / Investment Return:

Funding	6.25 percent (net of administrative and investment expenses)
Accounting & Financial Reporting	6.25 percent (net of investment expenses)

Inflation: 2.00 percent per year

Cost of Living Increases: 0.4 percent beginning on January 1, 2024
0.5 percent beginning on January 1, 2034
0.6 percent beginning on January 1, 2039

Future Salary Increases: Based on 2015-2019 experience. Illustrative rates shown below:

Years of Service	Merit	Wage Inflation	Total Individual Salary Growth
0-1	9.25 %	2.65 %	11.90 %
2	4.25	2.65	6.90
3	2.75	2.65	5.40
4-14	1.75	2.65	4.40
15	1.50	2.65	4.15
16	1.25	2.65	3.90
17	1.00	2.65	3.65
18	0.75	2.65	3.40
19	0.50	2.65	3.15
20	0.25	2.65	2.90
21+	—	2.65	2.65

Teachers' 1996 Defined Benefit Account, continued

Demographic Assumptions: Based on 2015-2019 Experience

Pub-2010 Public Retirement Plans Mortality Tables (Amount-Weighted) with a fully generational projection of mortality improvements using SOA Scale MP-2019.

Mortality (Healthy):	Teacher Employee table with a 1 year set forward for males and a 1 year set forward for females.
Mortality (Retirees):	Teacher Retiree table with a 1 year set forward for males and a 1 year set forward for females.
Mortality (Beneficiaries):	Contingent Survivor table with no set forward for males and a 2 year set forward for females.
Mortality (Disabled):	General Disabled table with a 140% load.

Retirement:

Age	Eligible for Reduced Retirement	Eligible for Unreduced Retirement
	Probability	Probability
50-53	2.0 %	N/A
54	5.0	N/A
55-56	5.0	15.0 %
57	6.5	15.0
58	8.0	15.0
59	12.0	15.0
60	N/A	15.0
61	N/A	20.0
62	N/A	25.0
63	N/A	30.0
64	N/A	35.0
65-74	N/A	40.0
75+	N/A	100.0

30% of active members are assumed to retire at their earliest retirement date. 70% of active members are assumed to defer to their earliest unreduced retirement date.

Inactive vested members are assumed to commence their retirement benefit at their earliest unreduced retirement date.

Teachers' 1996 Defined Benefit Account, continued

Termination:

Years of Service	Service Based	
	Male	Female
0	15.00 %	12.50 %
1	13.00	11.50
2	11.00	10.50
3	9.00	9.50
4	8.00	8.50
5	7.00	7.50
6	6.00	6.50
7	5.00	5.50
8	4.50	5.00
9	4.00	4.50
10	3.75	4.00
11	3.50	3.50
12	3.25	3.25
13	3.00	3.00
14	2.75	2.75
15	2.50	2.50
16+	2.25	2.25

Disability:

Age	Sample Rates
<=36	0.005 %
40	0.009
45	0.014
50	0.034
55	0.061
56-65	0.070
66+	0.000

Spouse / Beneficiary:

80% of male members and 75% of female members are assumed to be married. Males are assumed to be three (3) years older and females are assumed to be two (2) years younger than their spouses.

Form of Payment

100% of members are assumed to elect the normal form of benefit payment, a single life annuity with a five-year certain period.

Miscellaneous Adjustments:

For active members, the Average Annual Compensation was increased by \$200 for additional wages received upon termination, such as severance or unused sick leave.

Teachers' 1996 Defined Benefit Account, continued

Actuarial Methods

Funding uses the same Actuarial Methods as accounting and financial reporting, except where noted.

Actuarial Cost Method: Entry Age Normal – Level Percent of Payroll

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

This method produces a cost of future benefit accruals that is a level percent of pay over time, which is desirable for employers from a budgeting standpoint. Other actuarial cost methods are more volatile in their allocation of cost for each year of member service.

Amortization Method: For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 20-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 20-year period. However, when the plan is at or above 100 percent funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payment each year. Effective June 30, 2018, the bases are calculated without regards to the COLA provisions. The purpose of the method is to give a smooth progression of the costs from year-to-year and, at the same time, provide for an orderly funding of the unfunded liabilities.

For accounting and financial reporting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants. Gains and losses occurring from investment experience different than assumed are amortized into expense over a five-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.

Data Measurement Date: Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.

COLA Surcharge: The COLA Surcharge is developed by determining the assets needed at the start of the next biennium to fund the post-retirement benefit increases anticipated to be granted in that biennium. This amount is divided by the present value of expected payroll over which the accumulations will occur.

Asset Valuation Method: Funding uses the Actuarial Value of Assets (AVA), which is equal to a five-year smoothing of gains and losses on the Fair Value of Assets (FVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the FVA.

Accounting and financial reporting uses the FVA in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section, the actuarial valuation at <https://www.in.gov/inprs/actuarialvaluation.htm>, or the applicable Indiana Code at <http://iga.in.gov/>.

Teachers' 1996 Defined Benefit Account, continued

Analysis of Financial Experience

(dollars in thousands)	UAAL
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2020	\$(56,818)
Normal Cost and Interest, less Expected Contributions	30,106
Expected UAAL: June 30, 2021	(26,712)
UAAL (Gain) / Loss	
Actuarial Value of Assets Experience	(254,567)
Actuarial Accrued Liabilities Experience ¹	96,805
Actuarial Assumption & Methodology Changes	536,184
Plan Provision Changes ²	3,034
Total UAAL (Gain) / Loss	381,456
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2021	\$354,744

Solvency Test ¹

The solvency test compares aggregate actuarial liabilities by various categories with the plan's assets.

(dollars in thousands)	Actuarial Accrued Liabilities			Portion of Actuarial Accrued Liabilities Covered by Assets			
Actuarial Valuation as of June 30	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2021	\$1,648,129	\$5,869,573	\$7,517,702	\$7,162,958	100.0%	94.0%	95.3%
2020	1,454,955	4,948,297	6,403,252	6,460,070	100.0	101.1	100.9
2019	1,371,702	4,608,724	5,980,426	6,056,317	100.0	101.6	101.3
2018	1,232,059	4,331,205	5,563,264	5,478,482	100.0	98.0	98.5
2017	1,213,780	4,322,314	5,536,094	5,035,991	100.0	88.4	91.0
2016	1,079,255	4,095,062	5,174,317	4,648,297	100.0	87.2	89.8
2015	897,036	3,837,741	4,734,777	4,290,258	100.0	88.4	90.6
2014	759,244	3,357,020	4,116,264	3,914,503	100.0	94.0	95.1
2013	781,870	2,975,574	3,757,444	3,461,904	100.0	90.1	92.1
2012	646,161	2,792,809	3,438,970	3,037,116	100.0	85.6	88.3

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

² HEA 1001-2021 granted a 1% COLA effective January 1, 2022.

Teachers' 1996 Defined Benefit Account, continued

Schedule of Active Members Valuation Data

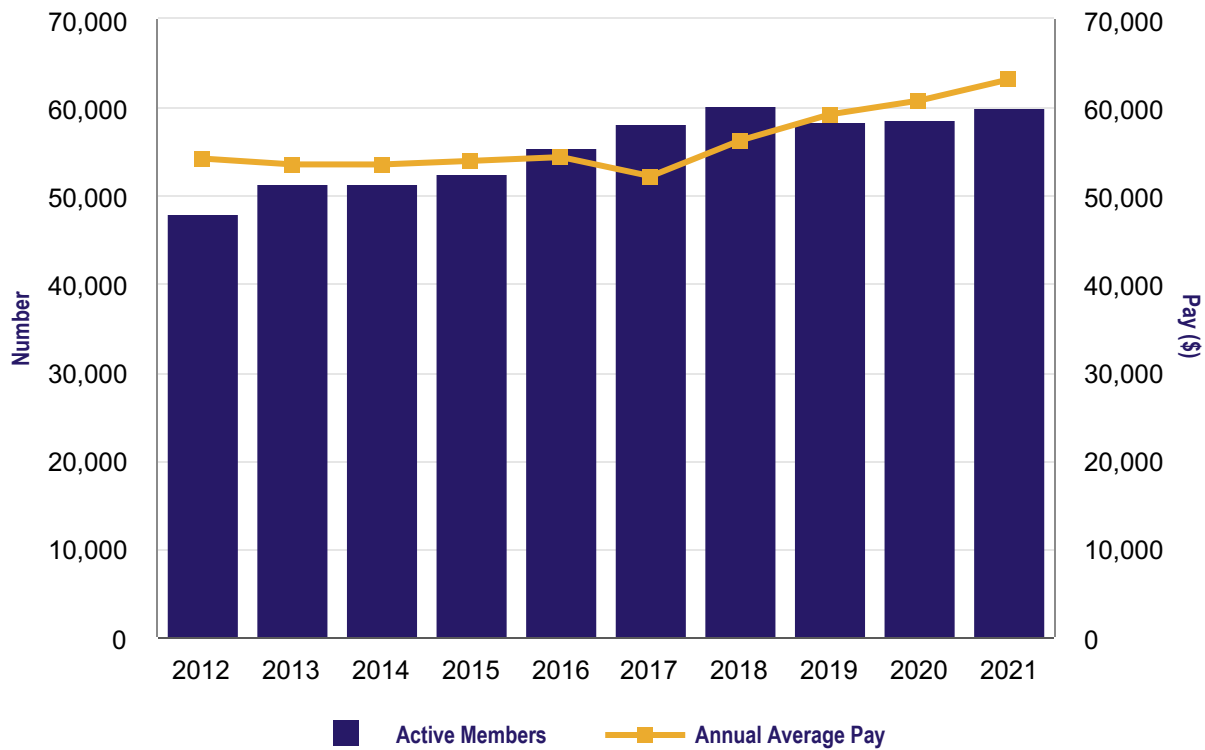
Actuarial Valuation as of June 30 ¹

(dollars in thousands - except annual average pay)

	Active Members	Annual Payroll	Annual Average Pay	Annual Percent Increase / (Decrease) In Average Pay
2021	59,866	\$3,781,122	\$63,160	3.9%
2020	58,450	3,552,093	60,771	2.7
2019	58,308	3,451,731	59,198	5.2
2018	59,996	3,374,943	56,253	7.8
2017	58,097	3,032,299	52,194	(4.0)
2016	55,265	3,004,169	54,359	0.8
2015	52,424	2,827,311	53,932	0.8
2014	51,204	2,740,661	53,524	—
2013	51,204	2,740,940	53,530	(1.2)
2012	47,885	2,594,952	54,191	0.8

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

Total Number of Active Members Per Year and Annual Average Pay



Teachers' 1996 Defined Benefit Account, continued

Schedule of Retirants and Beneficiaries

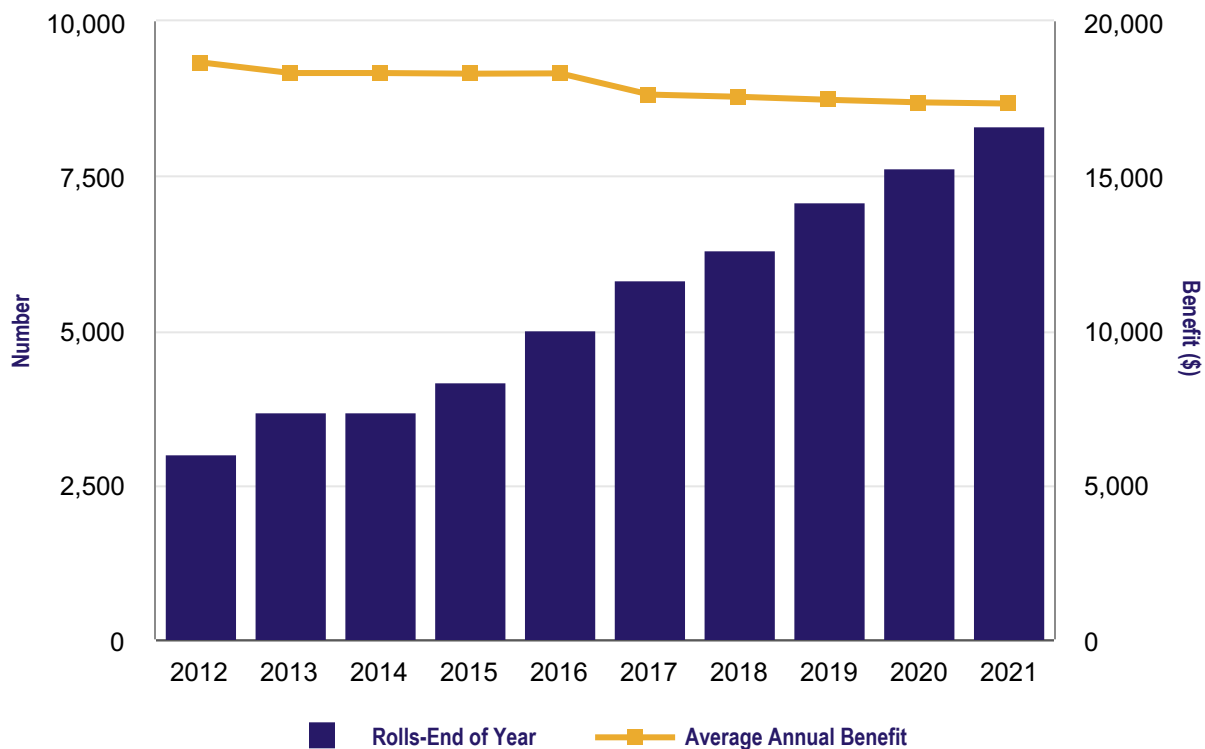
Actuarial Valuation as of June 30 ¹

(dollars in thousands -- except average annual benefit)

	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit	Percent Increase / (Decrease) in Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits			
2021	760	\$12,813	69	\$977	8,287	\$143,690	8.9%	\$17,339	(0.2)%
2020	619	10,236	64	927	7,596	132,004	7.4	17,378	(0.5)
2019	798	13,285	46	566	7,041	122,935	11.3	17,460	(0.6)
2018	710	9,562	217	1,002	6,289	110,423	8.1	17,558	(0.4)
2017	855	12,106	36	564	5,796	102,178	12.1	17,629	(3.8)
2016	858	16,075	17	305	4,977	91,160	20.4	18,316	0.1
2015	499	9,101	28	353	4,136	75,714	12.7	18,306	(0.1)
2014	—	12,216	—	251	3,665	67,169	—	18,327	—
2013	712	12,216	18	251	3,665	67,169	21.1	18,327	(1.8)
2012	433	8,132	16	236	2,971	55,475	15.8	18,672	(0.4)

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit



1977 Police Officers' and Firefighters' Retirement Fund

Historical Summary of Actuarial Valuation Results

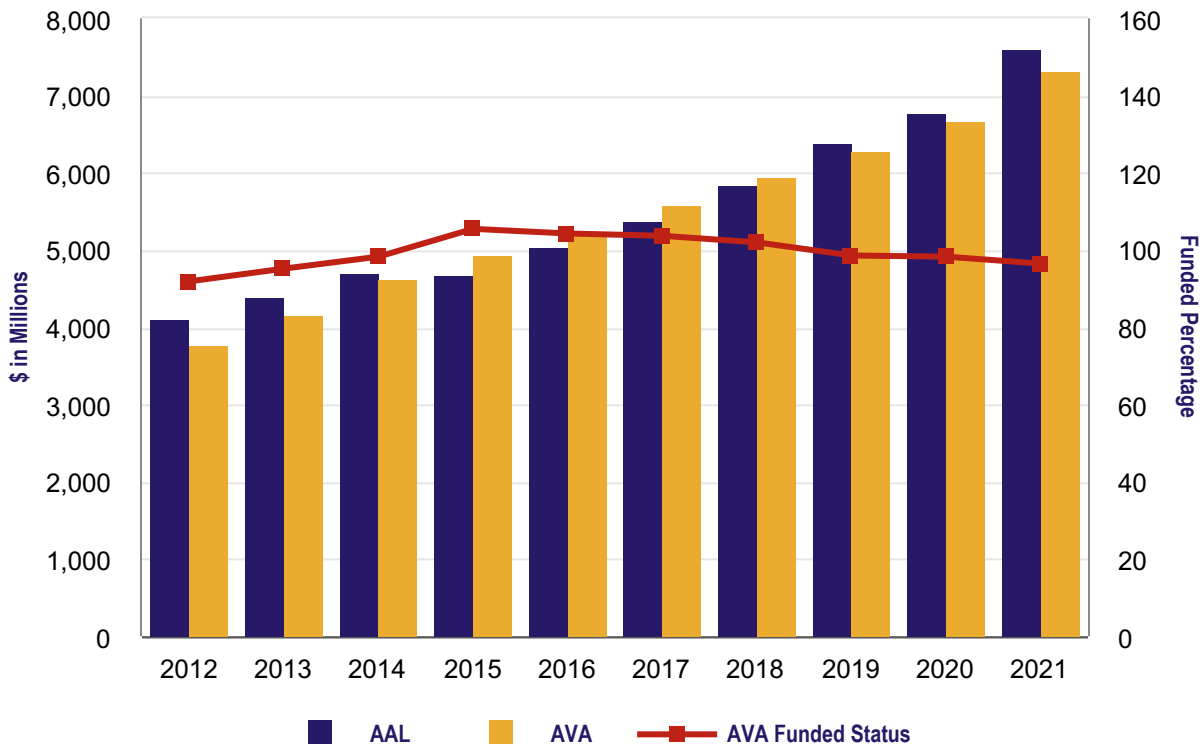
Actuarial Valuation as of June 30 ¹

The following table shows the history of the Unfunded Liability as a percentage of Covered Employee Payroll for '77 Fund.

(dollars in thousands)

	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability (AAL-AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll	Unfunded Liability as a percentage of Covered Employee Payroll
2021	\$7,598,774	\$7,331,655	\$267,119	96.5%	\$951,301	28.1%
2020	6,785,608	6,670,034	115,574	98.3	940,496	12.3
2019	6,389,002	6,299,749	89,253	98.6	866,299	10.3
2018	5,839,659	5,953,978	(114,319)	102.0	842,179	(13.6)
2017	5,385,753	5,587,551	(201,798)	103.7	809,382	(24.9)
2016	5,039,836	5,255,255	(215,419)	104.3	771,949	(27.9)
2015	4,680,694	4,939,330	(258,636)	105.5	745,336	(34.7)
2014	4,706,997	4,625,475	81,522	98.3	710,581	11.5
2013	4,392,947	4,180,704	212,243	95.2	695,000	30.5
2012	4,122,436	3,786,595	335,841	91.9	690,000	48.7

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.



1977 Police Officers' and Firefighters' Retirement Fund, continued

Summary of Actuarial Assumptions, Actuarial Methods and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2021 valuation of the 1977 Police Officers' and Firefighters' Retirement Fund were adopted by the INPRS Board in May 2021. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2014 through June 30, 2019, and were first used in the June 30, 2020 valuation. The INPRS Board adopted a funding policy in April 2014, and the policy was last updated in October 2018. The funding policy is available online at:

https://www.in.gov/inprs/files/INPRS_Funding_Policy.pdf.

Changes in Actuarial Assumptions

The Interest Rate / Investment Return assumption changed from 6.75 percent to 6.25 percent.

The inflation assumption changed from 2.25 percent to 2.00 percent.

The Future Salary Scale assumption changed from 2.75 percent to 2.65 percent.

The Cost of Living Increases (COLA) changed from 2.10 percent to 1.95 percent.

The Interest on Member Contributions assumption changed from 3.50 percent to 3.30 percent.

Changes in Actuarial Methods

There were no changes to the actuarial methods during the fiscal year.

Changes in Plan Provisions

There were no changes to the plan provisions during the fiscal year.

Actuarial Assumptions

Actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting, except where noted.

Economic Assumptions

Interest Rate / Investment Return:

Funding	6.25 percent (net of administrative and investment expenses)
Account & Financial Reporting	6.25 percent (net of investment expenses)
Interest on Member Contributions	3.30 percent per year
Inflation	2.00 percent per year
Cost of Living Increases:	1.95 percent per year in retirement
Future Salary Increases:	2.65 percent per year

Demographic Assumptions: Based on 2015-2019 Experience

Pub-2010 Public Retirement Plans Mortality Tables (Amount-Weighted) with a fully generational projection of mortality improvements using SOA Scale MP-2019.

Mortality (Healthy):	Safety Employee table with a 3 year set forward for males and no set forward for females.
Mortality (Retirees):	Safety Retiree table with a 3 year set forward for males and no set forward for females.
Mortality (Beneficiaries):	Contingent Survivor table with no set forward for males and a 2 year set forward for females.
Mortality (Disabled):	General Disabled table.

1977 Police Officers' and Firefighters' Retirement Fund, continued

Retirement:	Retirement Rate		Of those who retire		
	Ages	Rate	Service	Enter DROP	Commence Immediately
	50-51	5.0%	<=20	35 %	65 %
	52-55	15.0	21	40	60
	56-58	20.0	22	45	55
	59	22.5	23	50	50
	60-64	25.0	24-26	55	45
	65-69	50.0	27	60	40
	70+	100.0	28	65	35
			29+	70	30

Active members who elect to enter DROP are assumed to be in DROP for a period of 3 years, upon which time they take the full lump sum and commence their annuity benefit.

Inactive vested members are assumed to commence their retirement benefit at their earliest eligible retirement date (age 50 or current age if greater).

Termination:	Service		Rate	
	Service	Rate	Service	Rate
	0	10.0 %	6-8	2.0 %
	1	5.0	9-11	1.5
	2	4.0	12-19	1.0
	3-4	3.5	20+	2.0
	5	2.5		

Disability:	Age	Sample Rates
	<=30	0.10 %
	35	0.20
	40	0.30
	45	0.40
	50+	0.50

Rates for ages 30-50 increase by 0.02% per year.

Spouse / Beneficiary: 80 percent of male members and 60 percent of female members are assumed to be married or to have a dependent beneficiary. Male members are assumed to be three (3) years older than their spouses and female members are assumed to be two (2) years younger than their spouses.

Disability Retirement: For members hired after 1989 that become disabled, impairments are assumed to be one percent catastrophic Class 1, 59 percent Class 1, 10 percent Class 2, and 30 percent Class 3.

Form of Payment Members are assumed to elect either a single life annuity or a 70% joint and survivor benefit based on the marriage assumption.

Pre-Retirement Death: Of active member deaths, 20 percent are assumed to be in the line of duty and 80 percent are other than in the line of duty. Additionally, all deaths among retired and disabled members are other than in the line of duty.

1977 Police Officers' and Firefighters' Retirement Fund, continued

Actuarial Methods

Funding uses the same Actuarial Methods as accounting and financial reporting, except where noted.

Actuarial Cost Method: Entry Age Normal – Level Percent of Payroll

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

This method produces a cost of future benefit accruals that is a level percent of pay over time, which is desirable for employers from a budgeting standpoint. Other actuarial cost methods are more volatile in their allocation of cost for each year of member service.

Amortization Method:

For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 20-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 20-year period. However, when the plan is at or above 100 percent funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payment each year. The purpose of the method is to give a smooth progression of the costs from year-to-year and, at the same time, provide for an orderly funding of the unfunded liabilities.

For accounting and financial reporting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants. Gains and losses occurring from investment experience different than assumed are amortized into expense over a five-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.

Data Measurement Date:

Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.

Asset Valuation Method:

Funding uses the Actuarial Value of Assets (AVA), which is equal to a five-year smoothing of gains and losses on the Fair Value of Assets (FVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the FVA.

Accounting and financial reporting uses the FVA in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section, the actuarial valuation at <https://www.in.gov/inprs/actuarialvaluation.htm>, or the applicable Indiana Code at <http://iga.in.gov/>.

1977 Police Officers' and Firefighters' Retirement Fund, continued

Analysis of Financial Experience

(dollars in thousands)	UAAL
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2020	\$115,574
Normal Cost and Interest, less Expected Contributions	(3,104)
Expected UAAL: June 30, 2021	112,470
UAAL (Gain) / Loss	
Actuarial Value of Assets Experience	(245,047)
Actuarial Accrued Liabilities Experience ¹	33,631
Actuarial Assumption & Methodology Changes	366,065
Plan Provision Changes	—
Total UAAL (Gain) / Loss	154,649
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2021	\$267,119

Solvency Test

The solvency test compares aggregate actuarial liabilities by various categories with the plan's assets.

(dollars in thousands)	Actuarial Accrued Liabilities				Portion of Actuarial Accrued Liabilities Covered by Assets				
Actuarial Valuation as of June 30	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2021	\$886,016	\$2,816,400	\$3,896,358	\$7,598,774	\$7,331,655	100.0%	100.0%	93.1%	96.5%
2020	895,203	2,377,937	3,512,468	6,785,608	6,670,034	100.0	100.0	96.7	98.3
2019	883,706	2,169,744	3,335,552	6,389,002	6,299,749	100.0	100.0	97.3	98.6
2018	866,551	1,910,154	3,062,954	5,839,659	5,953,978	100.0	100.0	103.7	102.0
2017	857,426	1,715,503	2,812,824	5,385,753	5,587,551	100.0	100.0	107.2	103.7
2016	843,628	1,532,936	2,663,272	5,039,836	5,255,255	100.0	100.0	108.1	104.3
2015	832,760	1,362,021	2,485,913	4,680,694	4,939,330	100.0	100.0	110.4	105.5
2014	809,877	1,280,920	2,616,200	4,706,997	4,625,475	100.0	100.0	96.9	98.3
2013	782,124	1,288,457	2,322,366	4,392,947	4,180,704	100.0	100.0	90.9	95.2
2012	728,892	1,135,538	2,258,006	4,122,436	3,786,595	100.0	100.0	85.1	91.9

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

1977 Police Officers' and Firefighters' Retirement Fund, continued

Schedule of Active Members Valuation Data

Actuarial Valuation as of June 30 ¹

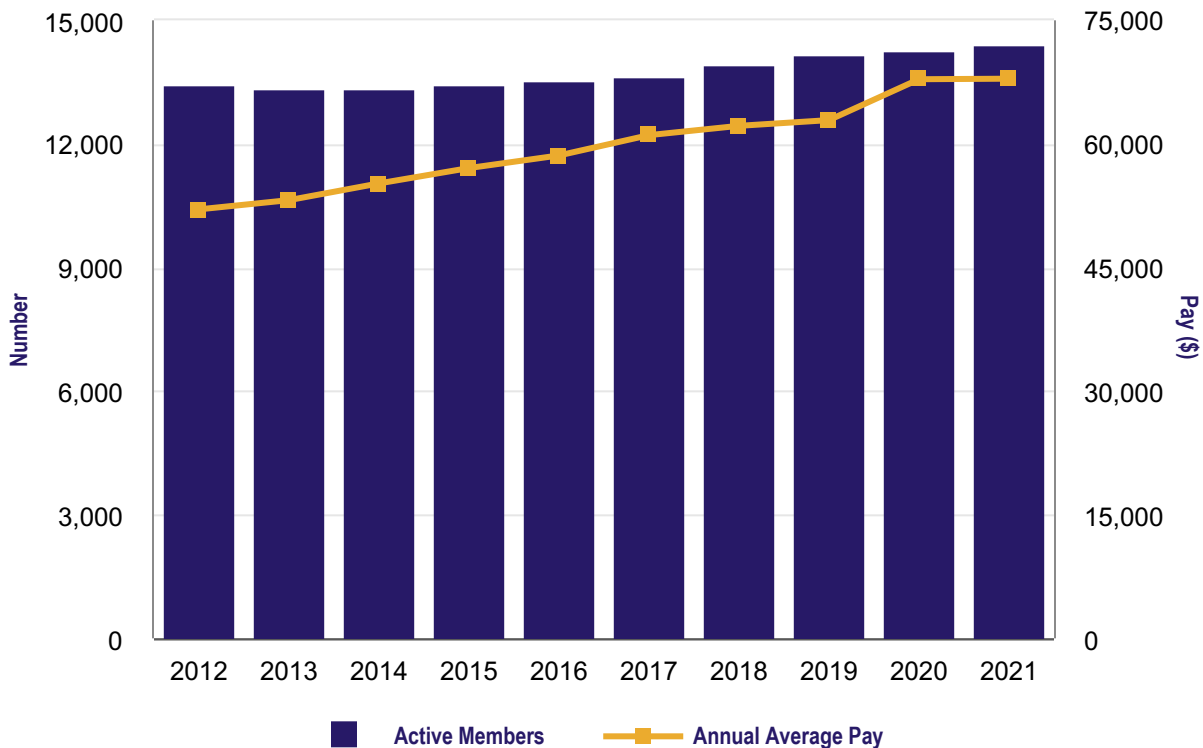
(dollars in thousands - except annual average pay)

	Active Members	Annual Payroll ²	Annual Average Pay	Annual Percent Increase / (Decrease) In Average Pay
2021	14,378	\$976,510	\$67,917	0.1%
2020	14,242	966,359	67,853	7.9
2019	14,119	887,957	62,891	1.1
2018	13,879	863,233	62,197	1.8
2017	13,587	829,736	61,068	4.2
2016	13,506	791,508	58,604	2.7
2015	13,390	764,215	57,074	3.4
2014	13,295	734,024	55,211	3.8
2013	13,287	706,603	53,180	2.1
2012	13,390	697,111	52,062	1.3

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

² Excludes payroll from members that are over the 32 year service cap.

Total Number of Active Members Per Year and Annual Average Pay



1977 Police Officers' and Firefighters' Retirement Fund, continued

Schedule of Retirants and Beneficiaries

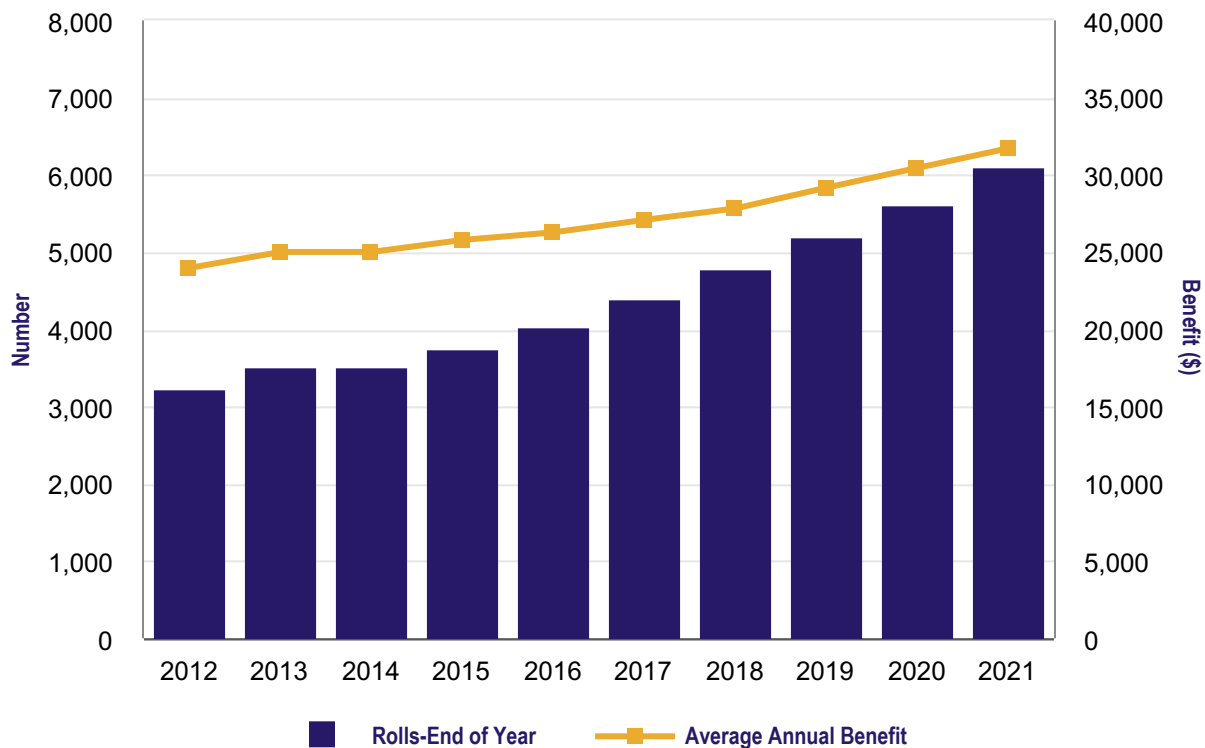
Actuarial Valuation as of June 30 ¹

(dollars in thousands -- except average annual benefit)

	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit	Percent Increase / (Decrease) in Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits			
2021	567	\$22,284	68	\$1,599	6,080	\$192,843	13.5%	\$31,718	4.2%
2020	444	16,965	50	1,036	5,581	169,933	12.3	30,449	4.4
2019	476	17,344	40	803	5,187	151,305	14.4	29,170	4.8
2018	429	14,914	52	1,002	4,751	132,207	11.6	27,827	2.7
2017	407	13,321	37	642	4,374	118,472	12.6	27,086	3.1
2016	312	10,074	44	834	4,004	105,218	9.2	26,278	1.9
2015	283	8,858	38	727	3,736	96,336	10.3	25,786	3.1
2014	—	—	—	—	3,491	87,301	—	25,008	—
2013	326	10,098	43	845	3,491	87,301	13.5	25,008	4.3
2012	281	7,900	39	814	3,208	76,917	12.8	23,977	4.3

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit



Judges' Retirement System

Historical Summary of Actuarial Valuation Results

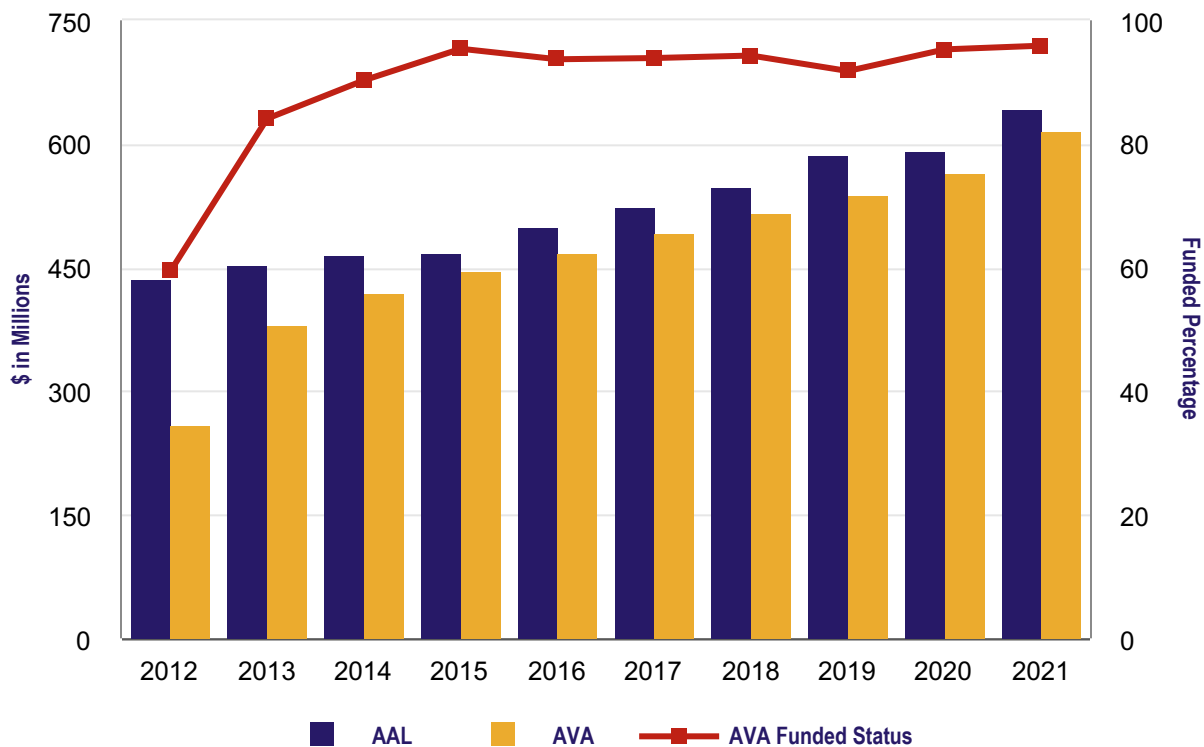
Actuarial Valuation as of June 30 ¹

The following table shows the history of the Unfunded Liability as a percentage of Covered Employee Payroll for JRS.

(dollars in thousands)

	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability (AAL-AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll	Unfunded Liability as a percentage of Covered Employee Payroll
2021	\$642,172	\$615,755	\$26,417	95.9%	\$61,215	43.2%
2020	592,510	564,741	27,769	95.3	58,189	47.7
2019	586,499	538,600	47,899	91.8	56,380	85.0
2018	547,694	516,749	30,945	94.4	53,350	58.0
2017	523,735	492,013	31,722	93.9	54,755	57.9
2016	501,126	469,378	31,748	93.7	51,382	61.7
2015	468,945	447,514	21,431	95.4	48,582	44.1
2014	464,855	419,568	45,287	90.3	46,041	98.5
2013	453,110	381,240	71,870	84.1	47,595	151.1
2012	437,854	260,096	177,758	59.4	45,138	393.9

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.



Judges' Retirement System, continued

Summary of Actuarial Assumptions, Actuarial Methods, and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2021 valuation of the Judges' Retirement System were adopted by the INPRS Board in May 2021. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2014 through June 30, 2019, and were first used in the June 30, 2020 valuation. The INPRS Board adopted a funding policy in April 2014, and the policy was last updated in October 2018. The funding policy is available online at: https://www.in.gov/inprs/files/INPRS_Funding_Policy.pdf.

Changes in Actuarial Assumptions

The Interest Rate / Investment Return assumption changed from 6.75 percent to 6.25 percent.

The future salary increase assumption changed from 2.75 percent to 2.65 percent.

The cost of living increase assumption changed from 2.75 percent to 2.65 percent.

The Interest on Member Contributions assumption changed from 3.50 percent to 3.30 percent.

Changes in Actuarial Methods

There were no changes to the actuarial methods during the fiscal year.

Changes in Plan Provisions

There were no changes to the plan provisions during the fiscal year.

Actuarial Assumptions

Actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting, except where noted.

Economic Assumptions

Interest Rate / Investment Return:

Funding	6.25 percent (net of administrative and investment expenses)
Account & Financial Reporting	6.25 percent (net of investment expenses)
Interest on Member Contributions	3.30 percent per year
Inflation	2.00 percent per year
Cost of Living Increases:	2.65 percent per year in deferral and retirement
Future Salary Increases:	2.65 percent per year

Demographic Assumptions: Based on 2015-2019 Experience

Pub-2010 Public Retirement Plans Mortality Tables (Amount-Weighted) with a fully generational projection of mortality improvements using SOA Scale MP-2019.

Mortality (Healthy):	General Employee table with a 1 year setback for males and a 1 year setback for females.
Mortality (Retiree):	General Retiree table with a 1 year setback for males and a 1 year setback for females.
Mortality (Beneficiaries):	Contingent Survivor table with no set forward for males and a 2 year set forward for females.
Mortality (Disabled):	General Disabled table with a 140% load.

Judges' Retirement System, continued

Retirement:

<u>Ages</u>	<u>Eligible for Reduced Benefit</u>	<u>Eligible for Unreduced Benefit</u>
55-61	N/A	20 %
62-64	8 %	20
65-74	N/A	30
75+	N/A	100

Inactive vested members are assumed to commence their retirement benefit at their earliest eligible retirement date.

Termination:

3 percent per year for all members prior to retirement eligibility.

Disability:

<u>Age</u>	<u>Sample Rates</u>
20	0.057 %
25	0.081
30	0.105
35	0.140
40	0.210
44-64	0.300
65+	0.000

Form of Payment

Members are assumed to elect either a single life annuity or a 50% joint survivor benefit base on the marriage assumption.

Spouse / Beneficiary:

90 percent of members are assumed to be married or to have a dependent beneficiary. Male members are assumed to be three (3) years older than their spouses and female members are assumed to be two (2) years younger than their spouses.

Judges' Retirement System, continued

Actuarial Methods

Funding uses the same Actuarial Methods as accounting and financial reporting, except where noted.

Actuarial Cost Method: Entry Age Normal – Level Percent of Payroll

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

This method produces a cost of future benefit accruals that is a level percent of pay over time, which is desirable for employers from a budgeting standpoint. Other actuarial cost methods are more volatile in their allocation of cost for each year of member service.

Amortization Method: For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 20-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 20-year period. However, when the plan is at or above 100 percent funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payment each year. The purpose of the method is to give a smooth progression of the costs from year-to-year and, at the same time, provide for an orderly funding of the unfunded liabilities.

For accounting and financial reporting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants. Gains and losses occurring from investment experience different than assumed are amortized into expense over a five-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.

Data Measurement Date: Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.

Asset Valuation Method: Funding uses the Actuarial Value of Assets (AVA), which is equal to a five-year smoothing of gains and losses on the Fair Value of Assets (FVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the FVA.

Accounting and financial reporting uses the FVA in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section, the actuarial valuation at <https://www.in.gov/inprs/actuarialvaluation.htm>, or the applicable Indiana Code at <http://iga.in.gov/>.

Judges' Retirement System, continued

Analysis of Financial Experience

(dollars in thousands)	UAAL
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2020	\$27,769
Normal Cost and Interest, less Expected Contributions	(1,548)
Expected UAAL: June 30, 2021	26,221
UAAL (Gain) / Loss	
Actuarial Value of Assets Experience	(19,802)
Actuarial Accrued Liabilities Experience ¹	(6,219)
Actuarial Assumption & Methodology Changes	26,217
Plan Provision Changes	—
Total UAAL (Gain) / Loss	196
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2021	\$26,417

Solvency Test ²

The solvency test compares aggregate actuarial liabilities by various categories with the plan's assets.

(dollars in thousands)	Actuarial Accrued Liabilities				Portion of Actuarial Accrued Liabilities Covered by Assets				
Actuarial Valuation as of June 30	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2021	\$41,003	\$308,070	\$293,099	\$642,172	\$615,755	100.0%	100.0%	91.0%	95.9%
2020	41,523	299,146	251,841	592,510	564,741	100.0	100.0	89.0	95.3
2019	38,165	269,886	278,448	586,499	538,600	100.0	100.0	82.8	91.8
2018	38,541	258,255	250,898	547,694	516,749	100.0	100.0	87.7	94.3
2017	36,385	245,177	242,173	523,735	492,013	100.0	100.0	86.9	93.9
2016	34,804	244,484	221,838	501,126	469,378	100.0	100.0	85.7	93.7
2015	32,383	210,020	226,542	468,945	447,514	100.0	100.0	90.5	95.4
2014	32,060	216,044	216,751	464,855	419,568	100.0	100.0	79.1	90.3
2013	29,060	224,132	199,918	453,110	381,240	100.0	100.0	64.1	84.1
2012	27,699	205,341	204,814	437,854	260,096	100.0	100.0	13.2	59.4

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

² In accordance with Legislation passed during March 2012, the State appropriated \$90,187 thousand during 2013 to reach a funded status of 80.0 percent based on the actuarial valuation as of June 30, 2012.

Judges' Retirement System, continued

Schedule of Active Members Valuation Data

Actuarial Valuation as of June 30 ¹

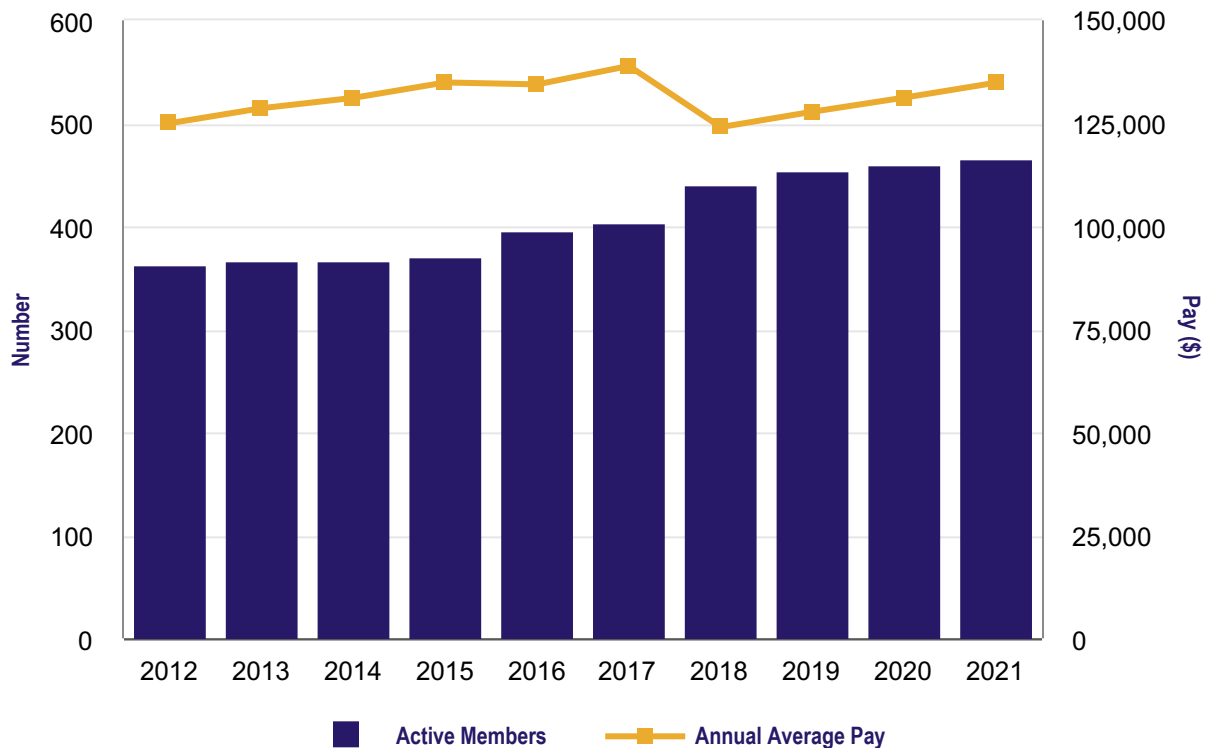
(dollars in thousands - except annual average pay)

	Active Members	Annual Payroll ²	Annual Average Pay	Annual Percent Increase / (Decrease) In Average Pay
2021	465	\$62,715	\$134,871	2.8%
2020	458	60,109	131,242	2.7
2019	453	57,902	127,819	3.0
2018	439	54,470	124,078	(10.7)
2017	402	55,850	138,931	3.3
2016	394	52,975	134,454	(0.3)
2015	368	49,651	134,921	2.8
2014	365	47,883	131,186	2.0
2013	365	46,967	128,676	2.9
2012	361	45,138	125,036	(0.8)

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

² Excludes payroll from members that are over the 22 year service cap.

Total Number of Active Members Per Year and Annual Average Pay



Judges' Retirement System, continued

Schedule of Retirants and Beneficiaries

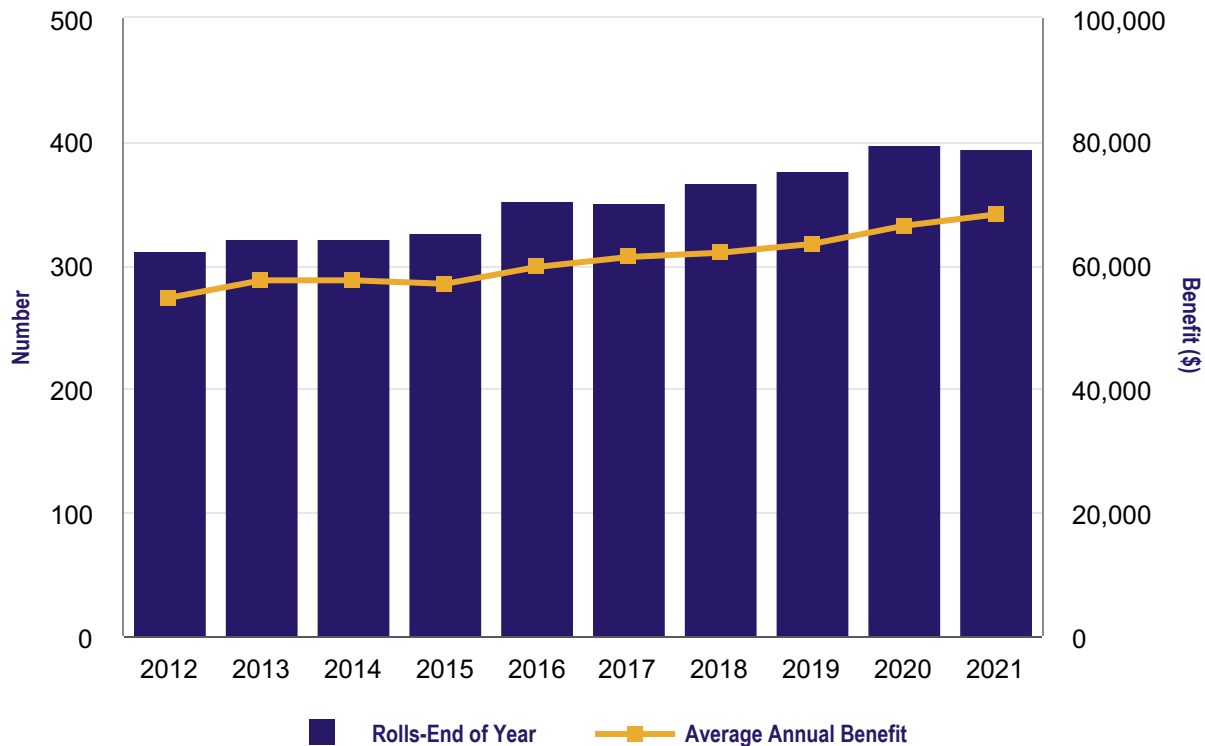
Actuarial Valuation as of June 30 ¹

(dollars in thousands -- except average annual benefit)

	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit	Percent Increase / (Decrease) in Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits			
2021	10	\$729	12	\$492	394	\$26,877	2.2%	\$68,216	2.8%
2020	31	2,498	10	261	396	26,289	10.5	66,387	4.6
2019	18	1,340	8	191	375	23,794	5.1	63,450	2.3
2018	22	1,723	7	309	365	22,637	5.5	62,019	1.1
2017	9	696	10	509	350	21,465	2.4	61,329	2.7
2016	34	2,520	9	340	351	20,959	12.8	59,714	4.8
2015	10	494	5	195	326	18,578	0.6	56,987	(1.0)
2014	—	—	—	—	321	18,474	—	57,551	—
2013	24	1,798	14	442	321	18,474	8.5	57,551	5.1
2012	7	444	6	194	311	17,028	1.4	54,751	1.1

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit



Excise, Gaming and Conservation Officers' Retirement Fund

Historical Summary of Actuarial Valuation Results

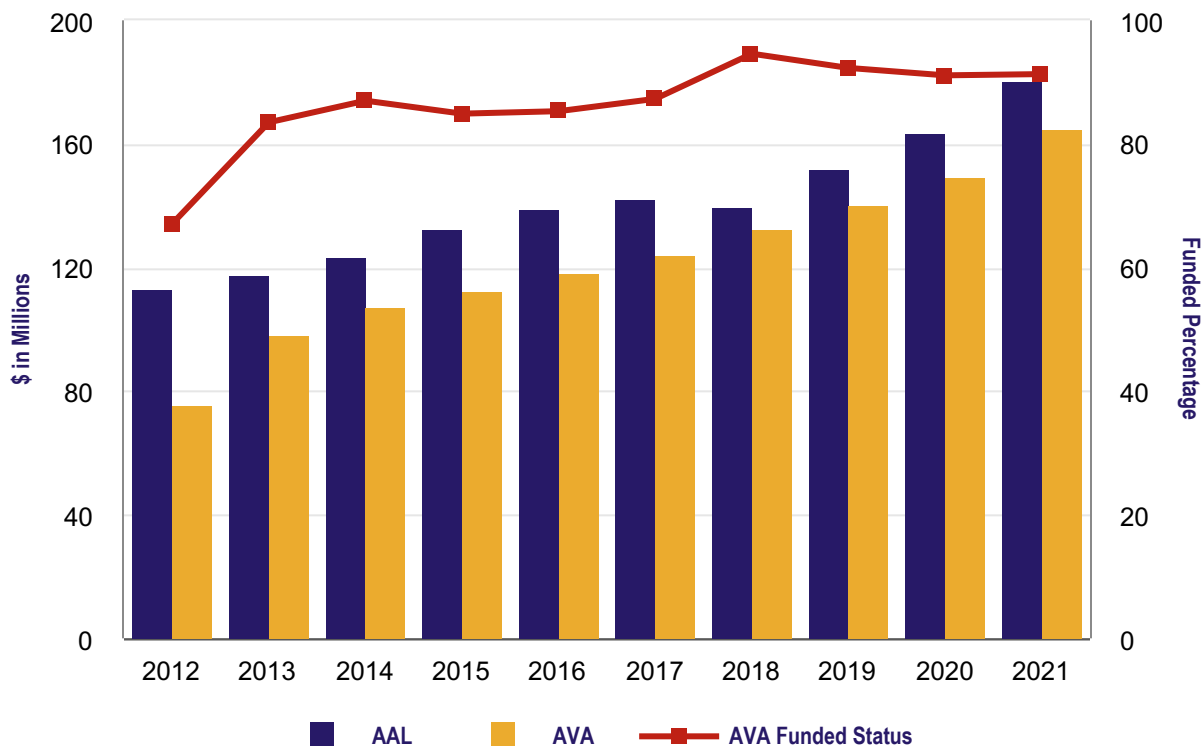
Actuarial Valuation as of June 30 ¹

The following table shows the history of the Unfunded Liability as a percentage of Covered Employee Payroll for EG&C.

(dollars in thousands)

	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability (AAL-AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll	Unfunded Liability as a percentage of Covered Employee Payroll
2021	\$180,848	\$165,179	\$15,669	91.3%	\$33,194	47.2%
2020	163,978	149,360	14,618	91.1	32,491	45.0
2019	152,207	140,559	11,648	92.3	33,272	35.0
2018	140,056	132,441	7,615	94.6	29,387	25.9
2017	142,603	124,531	18,072	87.3	27,428	65.9
2016	138,965	118,515	20,450	85.3	25,526	80.1
2015	132,796	112,765	20,031	84.9	25,133	79.7
2014	123,601	107,563	16,038	87.0	25,825	62.1
2013	118,097	98,608	19,489	83.5	24,675	79.0
2012	113,283	76,007	37,276	67.1	24,300	153.3

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.



Excise, Gaming and Conservation Officers' Retirement Fund, continued

Summary of Actuarial Assumptions, Actuarial Methods, and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2021 valuation of the Excise, Gaming and Conservation Officers' Retirement Fund were adopted by the INPRS Board in May 2021. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2014 through June 30, 2019, and were first used in the June 30, 2020 valuation. The INPRS Board adopted a funding policy in April 2014, and the policy was last updated in October 2018. The funding policy is available online at: https://www.in.gov/inprs/files/INPRS_Funding_Policy.pdf.

Changes in Actuarial Assumptions

The Interest Rate / Investment Return assumption changed from 6.75 percent to 6.25 percent.

The inflation assumption changed from 2.25 percent to 2.00 percent.

The Future Salary Scale assumption changed from 2.75% - 5.00% to 2.65% - 4.90%.

The Interest on Member Contributions assumption changed from 3.50 percent to 3.30 percent.

Changes in Actuarial Methods

There were no changes to the actuarial methods during the fiscal year.

Changes in Plan Provisions

HEA 1001-2021 granted a 1% COLA effective January 1, 2022.

Actuarial Assumptions

Actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting, except where noted.

Economic Assumptions

Interest Rate / Investment Return:

Funding	6.25 percent (net of administrative and investment expenses)
Accounting & Financial Reporting	6.25 percent (net of investment expenses)

Interest on Member Contributions: 3.30 percent per year

Inflation: 2.00 percent per year

Cost of Living Increases: 0.4 percent beginning on January 1, 2024
0.5 percent beginning on January 1, 2034
0.6 percent beginning on January 1, 2039

Future Salary Increases:

Based on 2015-2019 experience. Illustrative rates shown below:

Service	Wage Inflation	Merit	Salary Increase
0	2.65 %	2.25 %	4.90 %
1	2.65	2.00	4.65
2	2.65	1.75	4.40
3	2.65	1.50	4.15
4	2.65	1.25	3.90
5	2.65	1.00	3.65
6	2.65	0.75	3.40
7	2.65	0.50	3.15
8	2.65	0.25	2.90
9+	2.65	—	2.65

Excise, Gaming and Conservation Officers' Retirement Fund, continued

Demographic Assumptions: Based on 2014-2019 Experience

Pub-2010 Public Retirement Plans Mortality tables (Amount-Weighted) with a fully generational projection of mortality improvements using SOA Scale MP-2019.

Mortality (Healthy):	Safety Employee table with a 3 year set forward for males and no set forward for females.
Mortality (Retirees):	Safety Retiree table with a 3 year set forward for males and no set forward for females.
Mortality (Beneficiaries):	Contingent Survivor table with no set forward for males and a 2 year set forward for females.
Mortality (Disabled):	General Disabled table.

Retirement:

Age	Eligible for Reduced Benefit	Eligible for Unreduced Benefit
45-54	2 %	20 %
55-58	2	25
59	2	35
60	N/A	55
61	N/A	65
62-64	N/A	75
65+	N/A	100

Active members who retire are assumed to enter DROP 50 percent of the time and retire immediately 50 percent of the time. Those who elect to enter DROP are assumed to be in DROP for a period of 3 years, upon which time they take the full lump sum and commence their annuity benefit.

Inactive vested members are assumed to commence their retirement benefit at their earliest eligible retirement date (age 45, or current age if greater).

Termination:

Years of Service	Rate	Years of Service	Rate
0-1	10 %	6	5 %
2	9	7	4
3	8	8	3
4	7	9	2
5	6	10+	1

Disability:

Age	Sample Rates
<=30	0.1 %
35	0.2
40	0.3
45	0.4
50+	0.5

Rates for ages 30-50 increase by 0.02 percent per year.

Active members who become disabled are assumed to receive 20% of their salary if they have less than five years of service and 40% of their salary if they have five or more years of service.

Excise, Gaming and Conservation Officers' Retirement Fund, continued

Spouse / Beneficiary:	90 percent of members are assumed to be married or to have a dependent beneficiary. Males are assumed to be three (3) years older than females and females are assumed to be two (2) years younger than their spouses.
Form of Payment	Members are assumed to elect either a single life annuity or a 50% joint survivor benefit based on the marriage assumption.
Pre-Retirement Death:	Of active member deaths, 20 percent are assumed to be in the line of duty and 80 percent are other than in the line of duty. Additionally, all deaths among retired and disabled members are other than in the line of duty.

Excise, Gaming and Conservation Officers' Retirement Fund, continued

Actuarial Methods

Funding uses the same Actuarial Methods as accounting and financial reporting, except where noted.

Actuarial Cost Method: Entry Age Normal – Level Percent of Payroll

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

This method produces a cost of future benefit accruals that is a level percent of pay over time, which is desirable for employers from a budgeting standpoint. Other actuarial cost methods are more volatile in their allocation of cost for each year of member service.

Amortization Method: For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 20-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 20-year period. However, when the plan is at or above 100 percent funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payment each year. Effective June 30, 2018, the bases are calculated without regards to the COLA provisions. The purpose of the method is to give a smooth progression of the costs from year-to-year and, at the same time, provide for an orderly funding of the unfunded liabilities.

For accounting and financial reporting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants. Gains and losses occurring from investment experience different than assumed are amortized into expense over a five-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.

Data Measurement Date: Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.

COLA Surcharge: The COLA Surcharge is developed by determining the assets needed at the start of the next biennium to fund the post-retirement benefit increases anticipated to be granted in that biennium. This amount is divided by the present value of expected payroll over which the accumulations will occur.

Asset Valuation Method: Funding uses the Actuarial Value of Assets (AVA), which is equal to a five-year smoothing of gains and losses on the Fair Value of Assets (FVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the FVA.

Accounting and financial reporting uses the FVA in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section, the actuarial valuation at <https://www.in.gov/inprs/actuarialvaluation.htm>, or the applicable Indiana Code at <http://iga.in.gov/>.

Excise, Gaming and Conservation Officers' Retirement Fund, continued

Analysis of Financial Experience

(dollars in thousands)	UAAL
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2020	\$14,618
Normal Cost and Interest, less Expected Contributions	154
Expected UAAL: June 30, 2021	14,772
UAAL (Gain) / Loss	
Actuarial Value of Assets Experience	(8,566)
Actuarial Accrued Liabilities Experience ¹	(1,099)
Actuarial Assumption & Methodology Changes	10,403
Plan Provision Changes ²	159
Total UAAL (Gain) / Loss	897
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2021	\$15,669

Solvency Test³

The solvency test compares aggregate actuarial liabilities by various categories with the plan's assets.

(dollars in thousands)	Actuarial Accrued Liabilities				Portion of Actuarial Accrued Liabilities Covered by Assets				
Actuarial Valuation as of June 30	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2021	\$13,729	\$74,412	\$92,707	\$180,848	\$165,179	100.0%	100.0%	83.1%	91.3%
2020	12,927	70,363	80,688	163,978	149,360	100.0	100.0	81.9	91.1
2019	11,661	68,652	71,894	152,207	140,559	100.0	100.0	83.8	92.3
2018	10,715	68,750	60,591	140,056	132,441	100.0	100.0	87.4	94.6
2017	9,737	69,217	63,649	142,603	124,531	100.0	100.0	71.6	87.3
2016	9,085	67,424	62,456	138,965	118,515	100.0	100.0	67.3	85.3
2015	8,456	61,503	62,837	132,796	112,765	100.0	100.0	68.1	84.9
2014	8,042	54,626	60,933	123,601	107,563	100.0	100.0	73.7	87.0
2013	7,494	56,028	54,575	118,097	98,608	100.0	100.0	64.3	83.5
2012	6,532	53,929	52,822	113,283	76,007	100.0	100.0	29.4	67.1

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

² HEA 1001-2021 granted a 1% COLA effective January 1, 2022.

³ In accordance with Legislation passed during March 2012, the State appropriated \$14,619 thousand during 2013 to reach a funded status of 80.0 percent based on the actuarial valuation as of June 30, 2012.

Excise, Gaming and Conservation Officers' Retirement Fund, continued

Schedule of Active Members Valuation Data

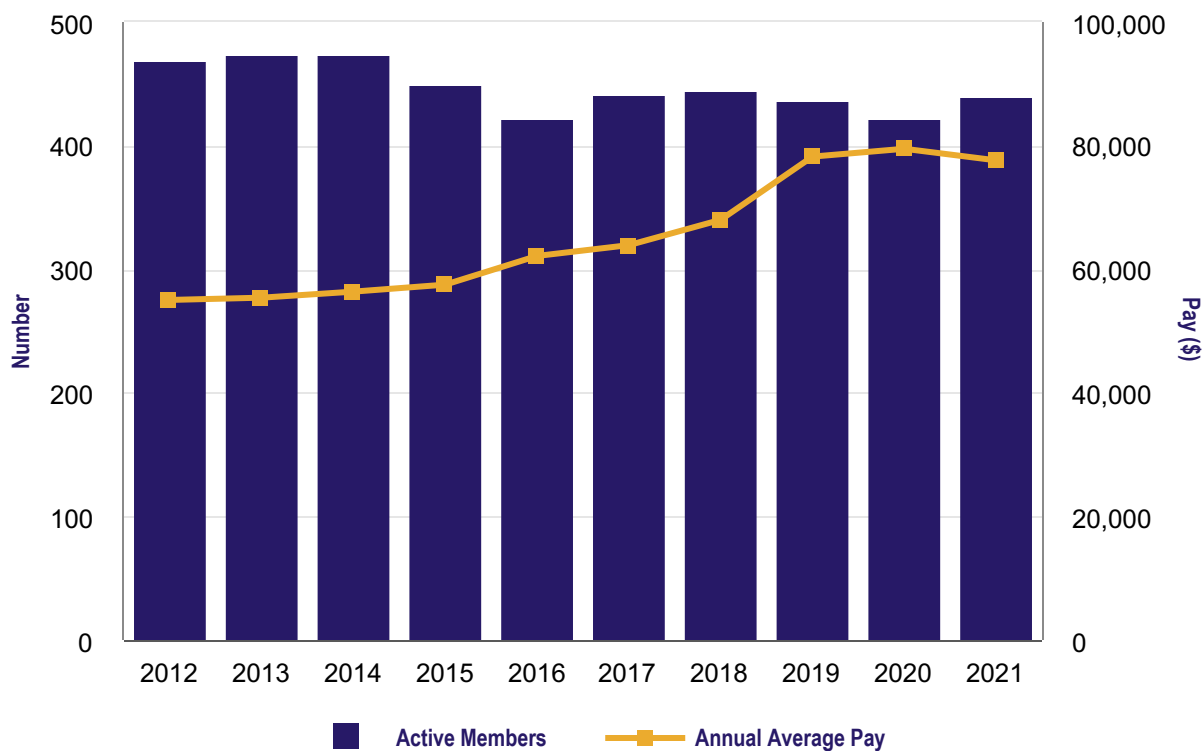
Actuarial Valuation as of June 30 ¹

(dollars in thousands - except annual average pay)

	Active Members	Annual Payroll	Annual Average Pay	Annual Percent Increase / (Decrease) In Average Pay
2021	439	\$34,073	\$77,616	(2.4)%
2020	420	33,384	79,487	1.6
2019	436	34,103	78,219	15.0
2018	443	30,121	67,994	6.4
2017	440	28,114	63,895	2.8
2016	421	26,164	62,147	8.1
2015	448	25,761	57,502	2.0
2014	473	26,664	56,372	1.8
2013	473	26,201	55,393	0.7
2012	468	25,752	55,026	0.8

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

Total Number of Active Members Per Year and Annual Average Pay



Excise, Gaming and Conservation Officers' Retirement Fund, continued

Schedule of Retirants and Beneficiaries

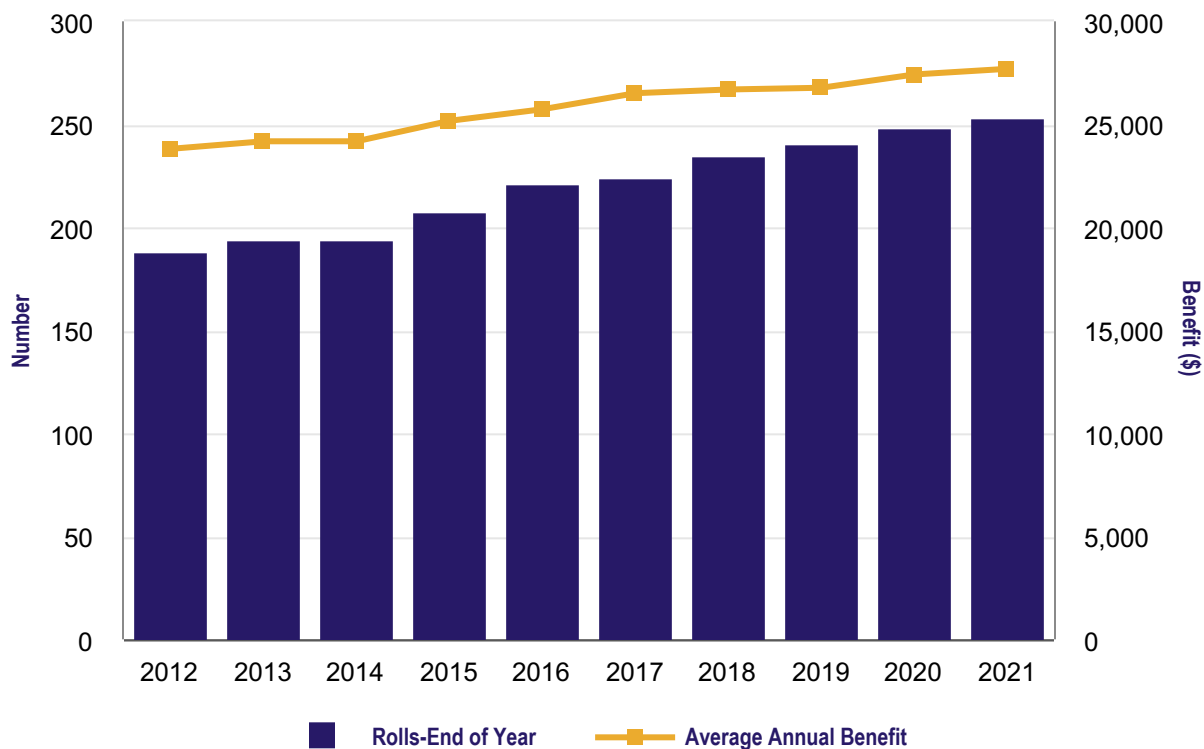
Actuarial Valuation as of June 30 ¹

(dollars in thousands -- except average annual benefit)

	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit	Percent Increase / (Decrease) in Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits			
2021	7	\$218	3	\$23	252	\$6,979	2.6%	\$27,695	1.0%
2020	13	438	5	46	248	6,800	5.8	27,421	2.4
2019	9	216	3	19	240	6,426	2.9	26,776	0.3
2018	13	404	2	23	234	6,246	5.6	26,692	0.7
2017	8	314	5	60	223	5,912	4.4	26,512	3.0
2016	14	506	1	4	220	5,661	8.7	25,733	2.2
2015	15	556	1	5	207	5,210	11.7	25,170	4.1
2014	—	—	—	—	193	4,666	—	24,177	—
2013	8	253	2	9	193	4,666	4.8	24,177	1.5
2012	14	495	3	14	187	4,452	11.9	23,810	5.3

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit



Prosecuting Attorneys' Retirement Fund

Historical Summary of Actuarial Valuation Results

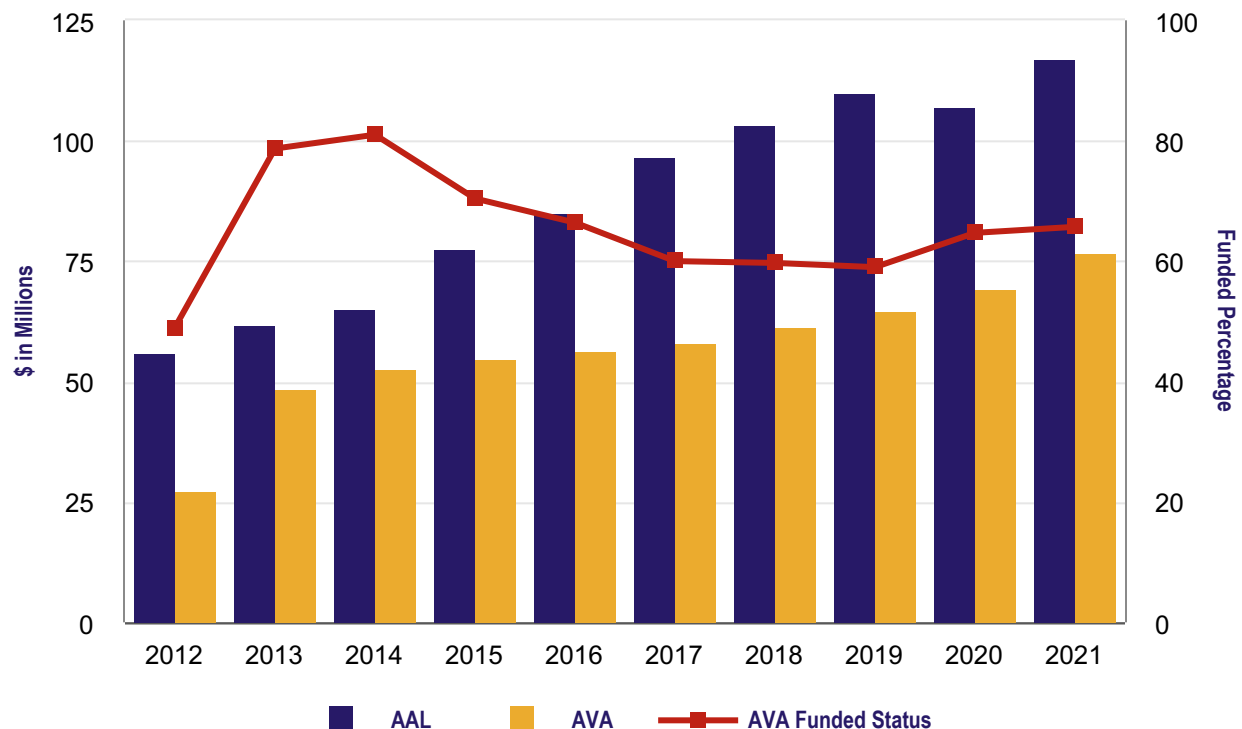
Actuarial Valuation as of June 30 ¹

The following table shows the history of the Unfunded Liability as a percentage of Covered Employee Payroll for PARF.

(dollars in thousands)

	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability (AAL-AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll	Unfunded Liability as a percentage of Covered Employee Payroll
2021	\$117,023	\$76,897	\$40,126	65.7%	\$24,323	165.0%
2020	107,049	69,288	37,761	64.7	23,989	157.4
2019	110,082	64,909	45,173	59.0	21,791	207.3
2018	103,284	61,665	41,619	59.7	21,578	192.9
2017	96,655	57,967	38,688	60.0	22,635	170.9
2016	85,033	56,472	28,561	66.4	21,372	133.6
2015	77,861	54,848	23,013	70.4	21,145	108.8
2014	65,336	52,936	12,400	81.0	20,608	60.2
2013	61,940	48,762	13,178	78.7	18,805	70.2
2012	56,080	27,501	28,579	49.0	21,705	131.8

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.



Prosecuting Attorneys' Retirement Fund, continued

Summary of Actuarial Assumptions, Actuarial Methods, and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2021 valuation of the Prosecuting Attorneys' Retirement Fund were adopted by the INPRS Board in May 2021. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2014 through June 30, 2019, and were first used in the June 30, 2020 valuation. The INPRS Board adopted a funding policy in April 2014, and the policy was last updated in October 2018. The funding policy is available at: https://www.in.gov/inprs/files/INPRS_Funding_Policy.pdf.

Changes in Actuarial Assumptions

The Interest Rate / Investment Return assumption changed from 6.75 percent to 6.25 percent.

The inflation assumption changed from 2.25 percent to 2.00 percent.

The future salary increase assumption changed from 2.75 percent to 2.65 percent.

The Interest on Member Contributions assumption changed from 3.50 percent to 3.30 percent.

Changes in Actuarial Methods

There were no changes to the actuarial methods during the fiscal year.

Changes in Plan Provisions

There were no changes to the plan provisions during the fiscal year.

Actuarial Assumptions

Except as noted below, actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting.

Economic Assumptions

Interest Rate / Investment Return:

Funding	6.25 percent (net of administrative and investment expenses)
Account & Financial Reporting	6.25 percent (net of investment expenses)
Interest on Member Contributions	3.30 percent per year
Inflation	2.00 percent per year
Cost of Living Increases:	N/A
Future Salary Increases:	2.65 percent per year

Demographic Assumptions: Based on 2015-2019 Experience

Pub-2010 Public Retirement Plans Mortality Tables (Amount-Weighted) with a fully generational projection of mortality improvements using SOA Scale MP-2019.

Mortality (Healthy):	General Employee table with a 1 year setback for males and a 1 year setback for females.
Mortality (Retirees):	General retiree table with a 1 year setback for males and a 1 year setback for females.
Mortality (Beneficiaries):	Contingent Survivor table with no set forward for males and a 2 year set forward for females.
Mortality (Disabled):	General Disabled table with a 140% load.

Prosecuting Attorneys' Retirement Fund, continued

Retirement:

Ages	Eligible for Reduced Benefit	Eligible for Unreduced Benefit
55-61	N/A	40 %
62-64	20 %	40
65-69	N/A	50
70+	N/A	100

Inactive vested members are assumed to commence their retirement benefit at their earliest unreduced eligible retirement date (age 62, or current age if greater).

Termination:

10 percent per year for all members prior to retirement eligibility

Disability:

Sample Rates		
Age	Male	Female
20	0.004 %	0.003 %
25	0.008	0.006
30	0.014	0.010
35	0.024	0.018
40	0.042	0.032
45	0.080	0.061
50	0.160	0.124
55+	0.300	0.200

Form of Payment

Members are assumed to elect either a single life annuity or a 50% joint survivor benefit base on the marriage assumption.

Spouse / Beneficiary:

90 percent of members are assumed to be married or to have a dependent beneficiary. Males are assumed to be three (3) years older than their spouses and females are assumed to be two (2) years younger than their spouses.

Prosecuting Attorneys' Retirement Fund, continued

Actuarial Methods

Funding uses the same Actuarial Methods as accounting and financial reporting, except where noted.

Actuarial Cost Method: Entry Age Normal – Level Percent of Payroll

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

This method produces a cost of future benefit accruals that is a level percent of pay over time, which is desirable for employers from a budgeting standpoint. Other actuarial cost methods are more volatile in their allocation of cost for each year of member service.

Amortization Method: For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 20-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 20-year period. However, when the plan is at or above 100 percent funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payment each year. The purpose of the method is to give a smooth progression of the costs from year-to-year and, at the same time, provide for an orderly funding of the unfunded liabilities.

For accounting and financial reporting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants. Gains and losses occurring from investment experience different than assumed are amortized into expense over a five-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.

Data Measurement Date: Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.

Asset Valuation Method: Funding uses the Actuarial Value of Assets (AVA), which is equal to a five-year smoothing of gains and losses on the Fair Value of Assets (FVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the FVA.

Accounting and financial reporting uses the FVA in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section, the actuarial valuation at <https://www.in.gov/inprs/actuarialvaluation.htm>, or the applicable Indiana Code at <http://iga.in.gov/>.

Prosecuting Attorneys' Retirement Fund, continued

Analysis of Financial Experience

(dollars in thousands)	UAAL
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2020	\$37,761
Normal Cost and Interest, less Expected Contributions	(1,047)
Expected UAAL: June 30, 2021	36,714
UAAL (Gain) / Loss	
Actuarial Value of Assets Experience	(2,504)
Actuarial Accrued Liabilities Experience ¹	(287)
Actuarial Assumption & Methodology Changes	6,203
Plan Provision Changes	—
Total UAAL (Gain) / Loss	3,412
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2021	\$40,126

Solvency Test ²

The solvency test compares aggregate actuarial liabilities by various categories with the plan's assets.

(dollars in thousands)	Actuarial Accrued Liabilities					Portion of Actuarial Accrued Liabilities Covered by Assets								
	Actuarial Valuation as of June 30	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Active Member Contributions	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities				
2021	\$	27,001	\$	50,839	\$	39,183	\$	117,023	\$	76,897	100.0 %	98.1 %	— %	65.7%
2020		27,768		44,410		34,871		107,049		69,288	100.0	93.5	—	64.7
2019		27,471		39,607		43,004		110,082		64,909	100.0	94.5	—	59.0
2018		27,620		39,034		36,630		103,284		61,664	100.0	87.2	—	59.7
2017		26,327		38,504		31,824		96,655		57,967	100.0	82.2	—	60.0
2016		26,206		37,709		21,118		85,033		56,472	100.0	80.3	—	66.4
2015		25,479		26,636		25,746		77,861		54,848	100.0	100.0	10.6	70.4
2014		26,654		22,665		16,017		65,336		52,936	100.0	100.0	22.6	81.0
2013		25,371		22,004		14,565		61,940		48,762	100.0	100.0	9.5	78.7
2012		23,406		18,660		14,014		56,080		27,501	100.0	21.9	—	49.0

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

² In accordance with Legislation passed during March 2012, the State appropriated \$17,363 thousand during 2013 to reach a funded status of 80.0 percent based on the actuarial valuation as of June 30, 2012.

Prosecuting Attorneys' Retirement Fund, continued

Schedule of Active Members Valuation Data

Actuarial Valuation as of June 30 ¹

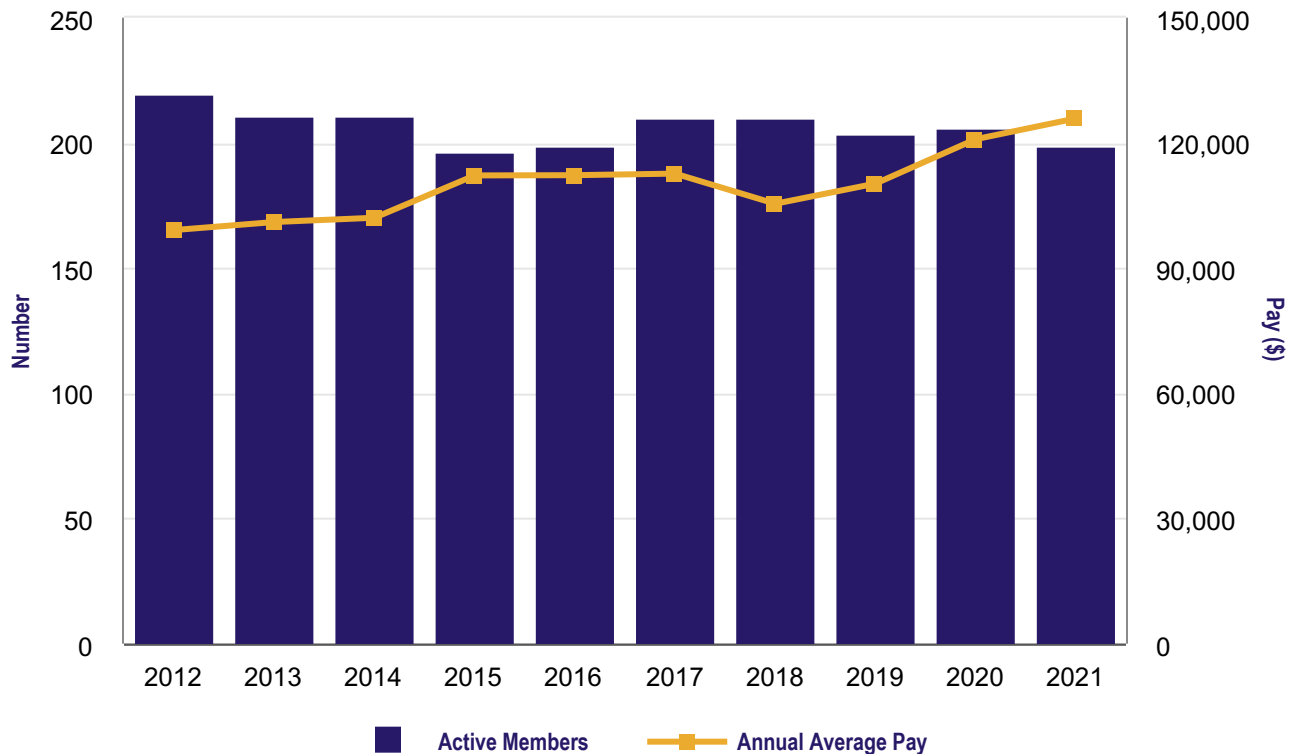
(dollars in thousands - except annual average pay)

	Active Members	Annual Payroll ²	Annual Average Pay	Annual Percent Increase / (Decrease) In Average Pay
2021	198	\$24,918	\$125,851	4.1%
2020	205	24,781	120,881	9.7
2019	203	22,379	110,242	4.6
2018	209	22,031	105,413	(6.4)
2017	209	23,540	112,632	0.3
2016	198	22,227	112,257	0.1
2015	196	21,991	112,198	9.9
2014	210	21,432	102,057	1.0
2013	210	21,217	101,033	1.9
2012	219	21,705	99,110	16.2

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

² Excludes payroll from members that are over the 22 year service cap.

Total Number of Active Members Per Year and Annual Average Pay



Prosecuting Attorneys' Retirement Fund, continued

Schedule of Retirants and Beneficiaries

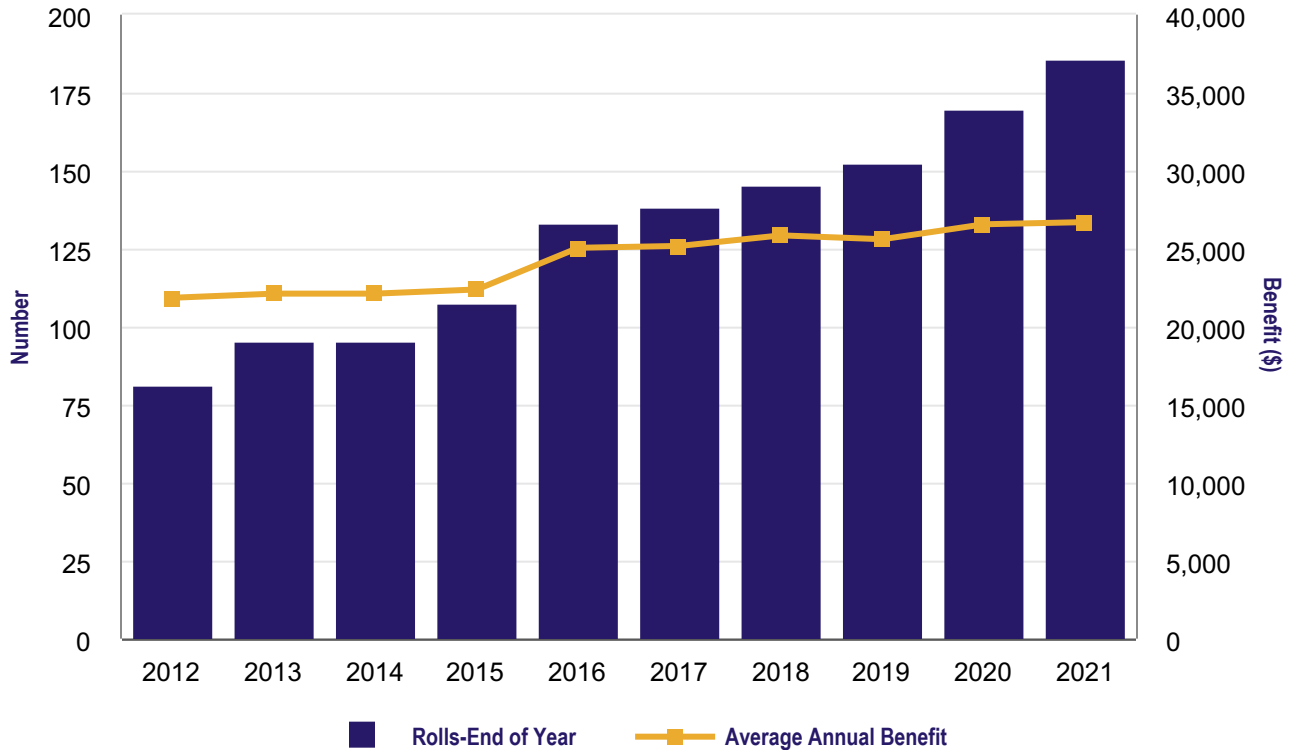
Actuarial Valuation as of June 30 ¹

(dollars in thousands -- except average annual benefit)

	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit	Percent Increase / (Decrease) in Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits			
2021	19	\$595	3	\$63	185	\$4,940	10.0%	\$26,703	0.5%
2020	18	632	1	20	169	4,489	15.3	26,563	3.7
2019	9	168	2	25	152	3,892	3.8	25,605	(1.0)
2018	9	307	2	28	145	3,749	7.9	25,853	2.7
2017	5	140	—	—	138	3,474	4.3	25,176	0.5
2016	26	937	—	—	133	3,332	39.1	25,056	11.9
2015	14	319	2	14	107	2,395	14.0	22,385	1.2
2014	—	—	—	—	95	2,101	—	22,118	—
2013	15	362	1	27	95	2,101	18.7	22,118	1.2
2012	6	178	1	27	81	1,770	9.4	21,853	2.7

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit



Legislators' Defined Benefit Fund

Historical Summary of Actuarial Valuation Results

Actuarial Valuation as of June 30 ¹

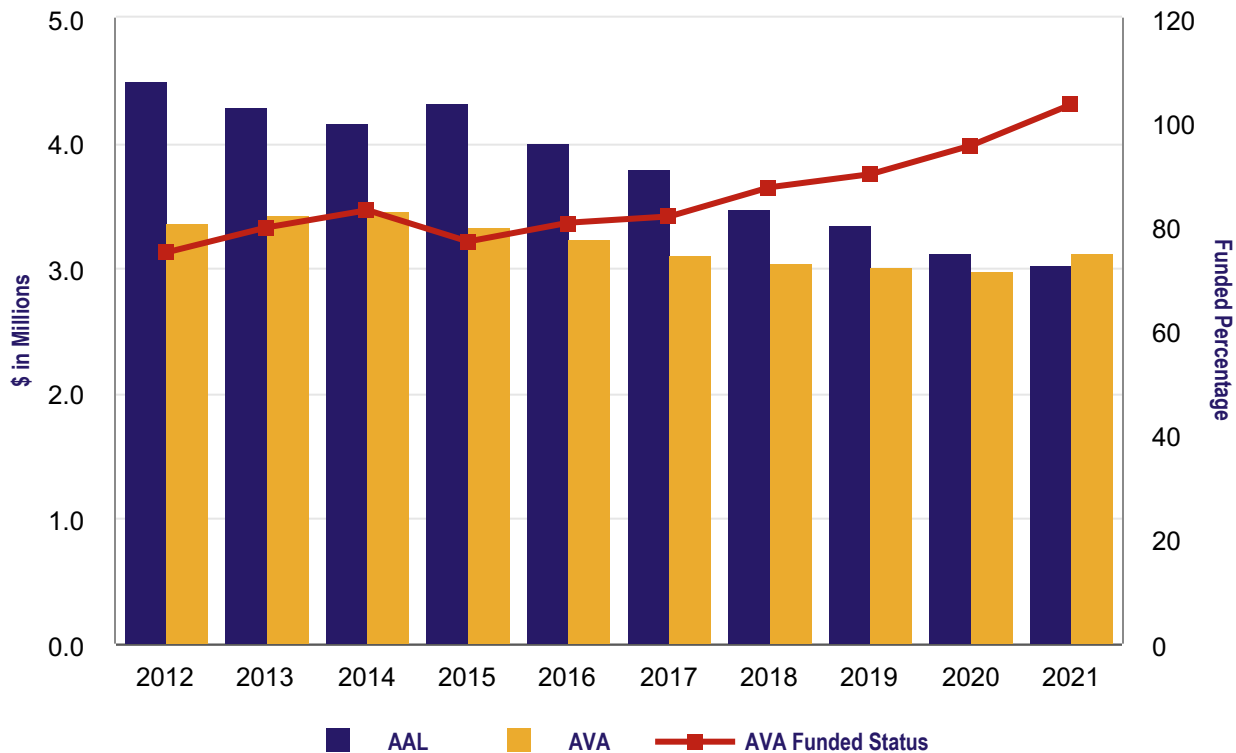
The following table shows the history of the Unfunded Liability for LE DB.

(dollars in thousands)

	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets (AVA)	Unfunded Liability (AAL-AVA)	AVA Funded Status (AVA/AAL)	Covered Employee Payroll ²	Unfunded Liability as a percentage of Covered Employee Payroll
2021	\$3,034	\$3,137	\$(103)	103.4%	N/A	N/A
2020	3,127	2,986	141	95.5	N/A	N/A
2019	3,362	3,026	336	90.0	N/A	N/A
2018	3,485	3,050	435	87.5	N/A	N/A
2017	3,804	3,114	690	81.9	N/A	N/A
2016	4,016	3,241	775	80.7	N/A	N/A
2015	4,328	3,336	992	77.1	N/A	N/A
2014	4,173	3,467	706	83.1	N/A	N/A
2013	4,295	3,428	867	79.8	N/A	N/A
2012	4,503	3,377	1,126	75.0	N/A	N/A

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

² LE DB is a closed plan with no Covered Employee Payroll.



Legislators' Defined Benefit Fund, continued

Summary of Actuarial Assumptions, Actuarial Methods, and Plan Provisions

The actuarial assumptions and methods used in the June 30, 2021 valuation of the Legislators' Defined Benefit Fund were adopted by the INPRS Board in May 2021. The majority of the actuarial assumptions and methods are based on plan experience from July 1, 2014 through June 30, 2019, and were first used in the June 30, 2020 valuation. The INPRS Board adopted a funding policy in April 2014, and the policy was last updated in October 2018. The funding policy is available online at: https://www.in.gov/inprs/files/INPRS_Funding_Policy.pdf.

Changes in Actuarial Assumptions

The Interest Rate / Investment Return assumption changed from 6.75 percent to 6.25 percent.
The inflation assumption changed from 2.25 percent to 2.00 percent.

Changes in Actuarial Methods

There were no changes to the actuarial methods during the fiscal year.

Changes in Plan Provisions

HEA 1001-2021 granted a 1% COLA effective January 1, 2022.

Actuarial Assumptions

Except as noted below, actuarial assumptions used for funding purposes are the same as those used for accounting and financial reporting.

Economic Assumptions

Interest Rate / Investment Return:	
Funding	6.25 percent (net of administrative and investment expenses)
Accounting & Financial Reporting	6.25 percent (net of investment expenses)
Inflation:	2.00 percent per year
Cost of Living Increases:	0.4 percent beginning on January 1, 2024
	0.5 percent beginning on January 1, 2034
	0.6 percent beginning on January 1, 2039

Demographic Assumptions: Based on 2015-2019 Experience

Pub-2010 Public Retirement Plans Mortality Tables (Amount-Weighted) with a fully generational projection of mortality improvements using SOA Scale MP-2019.

Mortality (Healthy):	General Employee table with a 1 year setback for males and a 1 year setback for females.
Mortality (Retirees):	General Retiree table with a 1 year setback for males and a 1 year setback for females.
Mortality (Beneficiaries):	Contingent Survivor table with no set forward for males and a 2 year set forward for females.
Mortality (Disabled):	General Disabled table with a 140% load.

Legislators' Defined Benefit Fund, continued

Retirement:

Age	Rate
55	10 %
56-57	8
58-61	2
62-64	5
65+	100

Inactive vested members are assumed to commence their retirement benefit at their earliest eligible retirement date.

Termination:

None

Disability:

None

Form of Payment

Members are assumed to elect either a single life annuity or a 50% joint survivor benefit base on the marriage assumption.

Spouse / Beneficiary:

90 percent of members are assumed to be married or to have a dependent beneficiary. Males are assumed to be three (3) years older than their spouses and females are assumed to be two (2) years younger than their spouses.

Legislators' Defined Benefit Fund, continued

Actuarial Methods

Actuarial Cost & Amortization Methods:

Funding: Traditional Unit Credit

The normal cost is calculated separately for each active member and is equal to actuarial present value of additional benefits expected to be accrued during the year following the valuation date. The actuarial accrued liability on any valuation date is the actuarial present value of the benefits earned for service prior to the valuation date. Since the benefits for all members of the Legislators' Defined Benefit Fund are fixed and no longer increasing with future service credit or future salary increases, applying the Traditional Unit Credit cost method results in the Actuarial Accrued Liability being equal to the Present Value of Future Benefits (i.e. all benefits are treated as though they are attributable to past service) and the Normal Cost being equal to \$0. This is consistent with the actual status of member benefit accruals.

Gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a five-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new five-year period. However, when the plan is at or above 100 percent funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payment each year. The purpose of the method is to give a smooth progression of the costs from year-to-year and, at the same time, provide for an orderly funding of the unfunded liabilities.

Accounting & Financing Reporting: Entry Age Normal - Level Percent of Payroll

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

Gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants. Gains and losses occurring from investment experience different than assumed are amortized into expense over a five-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.

Data Measurement Date: Member census data as of the prior year end was used in the valuation and adjusted, where appropriate, to reflect changes during the current fiscal year. Standard actuarial roll forward techniques were then used to project the liabilities computed as of prior year end to the current year measurement date.

COLA Funding Amount: The COLA may be funded by either direct State appropriations or by allocation of a portion of the lottery proceeds. The COLA Funding Amount is developed by determining the assets needed at the start of the next biennium to fund the post-retirement benefit increases anticipated to be granted in that biennium. This amount is divided by a present value factor over which the accumulations will occur.

Asset Valuation Method: Funding uses the Actuarial Value of Assets (AVA), which is equal to a five-year smoothing of gains and losses on the Fair Value of Assets (FVA), subject to a 20 percent corridor. Accordingly, the AVA is limited to no more than 20 percent greater than or 20 percent less than the FVA.

Accounting and financial reporting uses the FVA in accordance with GASB Statement No. 67.

Plan Provisions

Please refer to Note 1 of the Notes to the Financial Statements in the Financial Section, the actuarial valuation at <https://www.in.gov/inprs/actuarialvaluation.htm>, or the applicable Indiana Code at <http://iga.in.gov/>.

Legislators' Defined Benefit Fund, continued

Analysis of Financial Experience

(dollars in thousands)	UAAL
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2020	\$141
Normal Cost and Interest, less Expected Contributions	(165)
Expected UAAL: June 30, 2021	(24)
UAAL (Gain) / Loss	
Actuarial Value of Assets Experience	(127)
Actuarial Accrued Liabilities Experience ¹	(49)
Actuarial Assumption & Methodology Changes	90
Plan Provision Changes ²	7
Total UAAL (Gain) / Loss	(79)
Unfunded Actuarial Accrued Liability (UAAL): June 30, 2021	\$(103)

Solvency Test

The solvency test compares aggregate actuarial liabilities by various categories with the plan's assets.

(dollars in thousands)	Actuarial Accrued Liabilities			Portion of Actuarial Accrued Liabilities Covered by Assets			
Actuarial Valuation as of June 30	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities	Actuarial Value of Assets	Retirees and Beneficiaries	Active Member (Employer Financed Portion)	Total Actuarial Accrued Liabilities
2021	\$2,554	\$480	\$3,034	\$3,137	100.0%	121.6%	103.4%
2020	2,655	472	3,127	2,986	100.0	70.1	95.5
2019	2,747	615	3,362	3,026	100.0	45.3	90.0
2018	2,783	702	3,485	3,050	100.0	38.1	87.5
2017	3,013	791	3,804	3,114	100.0	12.9	81.9
2016	3,207	809	4,016	3,241	100.0	4.2	80.7
2015	3,213	1,115	4,328	3,336	100.0	11.1	77.1
2014	3,076	1,097	4,173	3,467	100.0	35.7	83.1
2013	3,192	1,103	4,295	3,428	100.0	21.4	79.8
2012	3,031	1,472	4,503	3,377	100.0	23.5	75.0

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

² HEA 1001-2021 granted a 1% COLA effective January 1, 2022.

Legislators' Defined Benefit Fund, continued

Schedule of Active Members Valuation Data

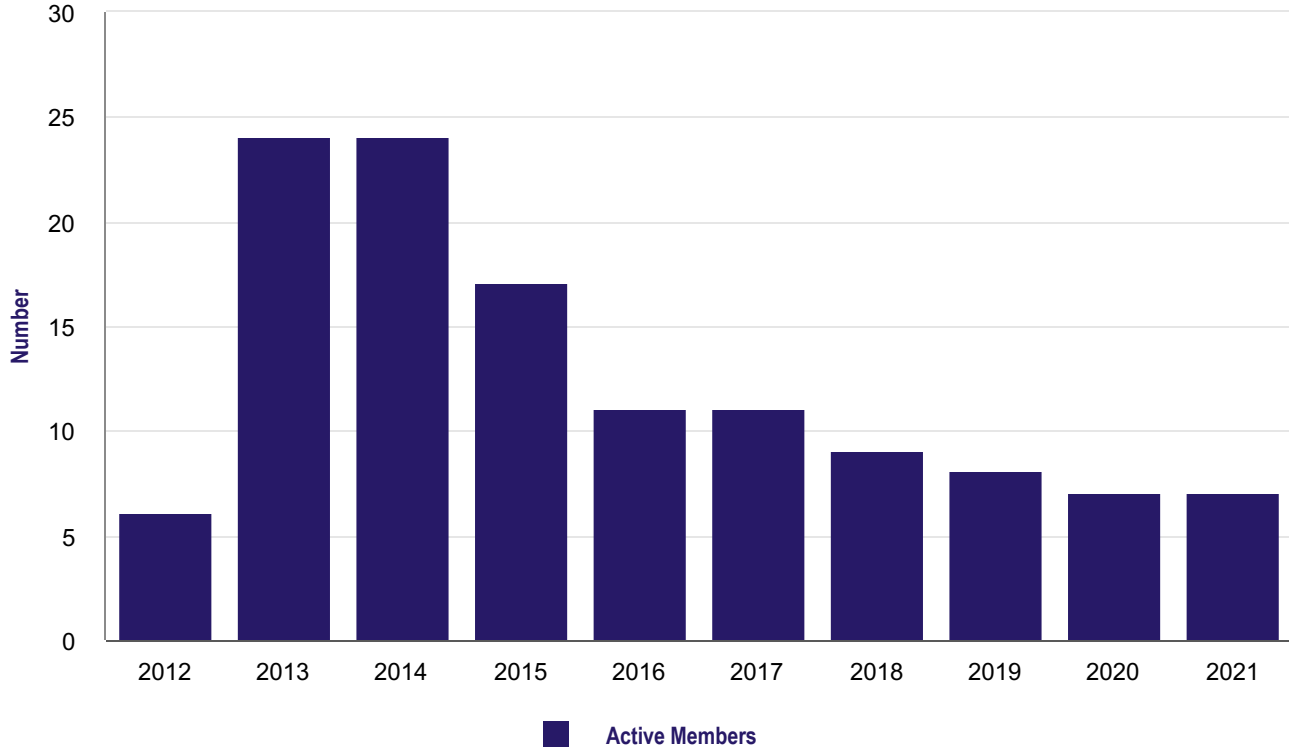
Actuarial Valuation as of June 30 ¹

(dollars in thousands - except annual average pay)

	Active Members	Annual Payroll	Annual Average Pay	Annual Percent Increase / (Decrease) In Average Pay
2021	7	N/A	N/A	N/A
2020	7	N/A	N/A	N/A
2019	8	N/A	N/A	N/A
2018	9	N/A	N/A	N/A
2017	11	N/A	N/A	N/A
2016	11	N/A	N/A	N/A
2015	17	N/A	N/A	N/A
2014	24	N/A	N/A	N/A
2013	24	N/A	N/A	N/A
2012	6	N/A	N/A	N/A

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

Total Number of Active Members Per Year



Legislators' Defined Benefit Fund, continued

Schedule of Retirants and Beneficiaries

Actuarial Valuation as of June 30 ¹

(dollars in thousands -- except average annual benefit)

	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase / (Decrease) In Total Annual Benefits	Average Annual Benefit	Percent Increase / (Decrease) in Average Annual Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Total Annual Benefits			
2021	—	\$—	2	\$11	77	\$348	(4.4)%	\$4,518	(1.9)%
2020	4	15	3	9	79	364	—	4,606	(1.3)
2019	2	7	—	—	78	364	2.0	4,669	(0.7)
2018	4	16	—	—	76	357	—	4,704	(5.1)
2017	—	—	2	7	72	357	(1.9)	4,956	0.8
2016	8	23	2	14	74	364	(0.5)	4,919	(8.5)
2015	1	2	1	1	68	366	0.5	5,377	0.3
2014	—	—	—	—	68	364	—	5,362	—
2013	9	41	4	26	68	364	4.3	5,362	(3.1)
2012	2	13	4	20	63	349	(2.0)	5,536	1.1

¹ See Accompanying Notes to the Actuarial Schedules, included in the Introduction to Actuarial Information.

Total Number of Retirants and Beneficiaries Per Year and Average Annual Benefit

