Popular Annual Financial Report
for the year ended December 31, 2018

2018

Working Together

Responsible actions take us forward

OPERS

Ohio Public Employees Retirement System

Responsible Financial Reporting

This *Popular Annual Financial Report* is derived from information contained in the *OPERS Comprehensive Annual Financial Report* (CAFR) for the year ended December 31, 2018, but does not contain detailed financial information by plan, nor is it presented in a manner to conform to Generally Accepted Accounting Principles (GAAP). For a complete set of financial definitions included in this summary report, please refer to the OPERS CAFR, which is prepared in conformity with GAAP and may be obtained by visiting our website, opers.org, or by contacting OPERS to request a copy.

Additionally, those interested in learning more about the OPERS health care program are invited to obtain a copy of the *OPERS 2018 Health Care Report*. That report is also available at opers.org as of June 30, 2019.

2017 Award for Outstanding Achievement—For the eighth consecutive year, OPERS has received the GFOA Award for Outstanding Achievement in Popular Annual Financial Reporting for its *Popular Annual Financial Report* for the fiscal year ended December 31, 2017. This award is a prestigious national award recognizing conformance with the highest standards of creativity, presentation, understandability, and reader appeal for preparation of governmental popular reports. OPERS has received this award for each year we have produced a *Popular Annual Financial Report*.

Popular Annual Financial Report

(for the year ended December 31, 2018)

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Dear Fellow Members:

With management and staff, it's our pleasure to present you with the *2018 Popular Annual Financial Report*, designed to share with stakeholders the actions and accomplishments for the year. Our theme, *Working Together—Responsible Actions Take Us Forward,* accurately shows our dedication of working with and for our members to make responsible decisions, no matter how tough, that will ensure the System is positioned to continue to provide benefits long into the future.

Because OPERS is a mature plan, we face significant challenges. We have a large asset base but we also have unprecedented demands on the income generated. As a result, we:

- Are more impacted by market downturns;
- Have fewer active members supporting the unfunded debt;
- Have only limited ability to make changes to yield meaningful reductions in liabilities—needed as we anticipate a membership shift to more retirees than active members; and
- Continue to struggle to provide financial support to our members for health care.

We are committed to facing these challenges and others and, with members and stakeholders, structuring solutions to ensure the sustainability of this System. When change is decided upon as part of any solution, we work to minimize drastic plan design changes, be positioned to react to, and absorb the impact of, market volatility all the while maintaining intergenerational equity.

The year 2018 was not a good year for financial markets. Because OPERS is a long-term investor, we know we will have good years with strong returns and years with negative returns, such as 2018. For your review, here are our highlights:

- Changes to assumed rate of return—OPERS collects member and employer contributions and invests those assets. Investment assets are expected to earn a targeted return over the long-term. In fact, investment earnings have become the largest source of funding for pension benefits.

  Establishing a realistic long-term investment earnings assumption is a responsible and necessary function of adequately funding the plan. Too high of an assumption will ultimately result in benefit reductions while too low of an assumption may result in an overcorrection through benefit changes. Both will result in a mismatch of funding burden on future generations for today's obligations. Thus, continued monitoring and assessment of assumptions is a responsible action and a best practice in managing the Plan.

  In October 2018, the long-term investment return assumption for pension was modified from 7.5 percent to 7.2 percent based on changes in the market outlook. Similarly, the long-term investment return assumption for the Health Care portfolio was reduced from 6.5 percent to 6.0 percent (lower because the Health Care portfolio has a shorter duration).

  Changes to the long-term assumed rate of return have a significant impact on the liabilities. The change in the long-term assumed rate of return for the Defined Benefit portfolio from 7.5 percent to 7.2 percent increased the pension liabilities by $3.4 billion. Similarly, the reduction in the long-term assumed rate of return for the Health Care portfolio from 6.5 percent to 6.0 percent increased the health care liabilities by $1.0 billion. These decisions, while challenging, were the right thing to do and demonstrate the System's responsible actions.

- Health care funding—Because we must preserve the Defined Benefit portfolio, no portion of contributions can be allocated to the Health Care portfolio until pension funding improves. This means the Health Care portfolio can grow only through investment income generated from its current asset base. As of December 31, 2017, the date of the latest valuation, the health care trust fund has approximately $12.0 billion in valuation assets and is projected to provide funding for approximately 13 years under the current health care program design.

Therefore, our only option is to evaluate additional changes to extend the time the current trust can fund health care expenditures. We are reviewing various options to increase sustainability. Ultimately, these options will be narrowed, and member feedback will be solicited. The 2019 year is expected to include extensive communications and feedback mechanisms culminating in a responsible solution.

- Internal processes and investment in technology—We are committed to providing excellent service to ever-increasing numbers without the commensurate increase in staff. The internal technology and business process redesign project attained its targeted milestones and was completed in 2018. The internal technology enhancements provide for more responsive features for members. The result of this multi-year technology improvement is the System's reduction of staff yielding a savings of approximately $4.0 million.

One of OPERS strengths has been our ability to anticipate and willingness to face challenges early rather than wait for a crisis. While this is the prudent thing to do, it is also the difficult thing to do. As stewards of public assets, we must take actions and make the responsible decisions that will carry this organization forward so that we can deliver on an important component of financial retirement security for all generations in our membership.

This organization is led by a dedicated and diligent Board that works tirelessly with OPERS management and staff to help position us for the future. We all have a fiduciary responsibility to make decisions in the best interest of all one million members. We have a responsibility to be prudent stewards and to look forward and prepare for the challenges we see, not wait for them to occur.

We will continue to take responsible actions to position OPERS to be a strong pension system and we will do this working with members, retirees and stakeholders. We are honored to be associated with, appreciate and acknowledge the efforts of all involved as, together, we prepare for and step into the future.

Karen E. Carraher
Karen E. Carraher, CPA
Executive Director

Jennifer H. Starr
Jennifer H. Starr, CPA
Chief Financial Officer

Jennifer Starr (left) and Karen Carraher standing with 35 years of awards for excellence in financial reporting.

Responsible Actions, Past and Present, Provide Stability Going Forward

Pension financials

The combination of the impact of the poor investment returns and the increase in liabilities is reflected in the reduction of the pension funded ratio. The pension funded ratio is an important way to assess the strength of a pension system—the funded ratio lets stakeholders understand what portion of assets have been accumulated to fund commitments. In 2018, the OPERS funded ratio was reduced to 78 percent from the previous-year funded ratio of 81 percent. So, OPERS has funded 78 percent of our commitment for both active and retired members.

Additionally, the System is required to remain within a 30-year timeframe to pay its liabilities, called an amortization period. The poor market returns of 2018 significantly increased that timeframe from 18 years (at the end of 2017 prior to the change in discount rate) to 27 years at the end of 2018.

What this means to members: OPERS is mandated to pay the pension benefits to retirees. To make these payments, funds are transferred from the active member employer fund to the pension fund—meaning that the System-combined 78 percent funded ratio is actually 39 percent for active members alone.

To improve the pension funding position, and equalize the impact of change within generations of OPERS members and retirees, strategic decisions may need to be made to reduce the $24 billion in unfunded liability. As always, the System will work responsibly and in partnership with all stakeholders to address issues and manage change.

Investment results

Investment returns provide between one-half and two-thirds of the funding for each OPERS retiree's pension. We must deliver returns over the long term to provide adequate funding for pension benefits. We recognize that yearly returns will vary with market volatility—and 2018 was a poor year for returns.

Overall, 2018 began with positive returns but the year ended with a downturn during the last portion of the year that erased all gains during the year. The total OPERS portfolio for 2018 returned a loss of 3.38 percent. This negative return reflects a stark comparison to the strong investment market of 2017 in which the total OPERS portfolio returned a strong gain.

What this means to members: The contrast between 2017 and 2018 demonstrates the volatility of the investment market—a volatility over which we have no control. What we can do is make responsible decisions so that, to the extent possible, we can mitigate the risk inherent in the market and provide the best possible returns. The 2018 return was less than the target actuarial return, but was slightly above the benchmark return loss of 3.47 percent.

Health Care

Although health care is neither mandated nor guaranteed, we recognize the importance to our members of providing access to meaningful health care—a significant component of a secure retirement. This dedication to maintaining access to meaningful health care has become increasingly expensive as OPERS retirees, similar to national trends, have increased in number, have longer life expectancies, and health care costs continue to increase significantly faster than inflation.

What this means to members: Two major issues combined to create the immediate health care challenge: Health care expenses will continue to grow as the number—and life expectancy—of our retirees continues to grow. Also, the current pension funding status requires all contributions be allocated to improve pension funding. Thus, until the pension funding improves, there is no funding source for health care for the foreseeable future. Therefore, as the health care trust fund has an estimated solvency of only 13 years in the future with the current health care program design, the responsible and right thing to do is to review the program carefully for any changes that can be made to help preserve the fund to be available further into the future.

Summary Comparative Statements of Fiduciary Net Position for all Plans and the Health Care Trust

Here are the assets and liabilities for the years ended December 31, 2018 and 2017. The net position represents the funds OPERS had accumulated by end of year to pay pension benefits for retirees, active and inactive members, as well as health care costs for current and future retirees. Note the OPERS net position (assets less liabilities) reflects the 2018 poor market returns as the net position has dropped below the $100 billion mark attained in 2017.

What this means to members: The System still had a $23 billion unfunded pension liability and a $6 billion unfunded health care liability, restated for the reduction in the discount rate, at the end of 2017—a year with extremely strong returns. At the end of 2018, the unfunded pension liability increased to $24 billion. For health care, the 2017 health care valuation is the most recent information available so the impact of the 2018 returns has not yet been determined. In any year, we work to decrease the level of these unfunded liabilities by structuring responsible, incremental modifications to both pension and health care—thus, increasing the investable assets to ultimately increase market returns when conditions are favorable.

	2018	2017	Amount Increase/ (Decrease) from 2017 to 2018	Percent Increase/ (Decrease) from 2017 to 2018
Assets				
Cash and Cash Equivalents	$3,986,157,970	$4,625,708,094	($639,550,124)	(13.8%)
Receivables	888,861,210	1,113,071,247	(224,210,037)	(20.1)
Investments	89,977,800,332	96,357,409,903	(6,379,609,571)	(6.6)
Collateral on Loaned Securities	8,170,412,140	7,935,816,160	234,595,980	3.0
Net Capital Assets	127,110,017	131,801,306	(4,691,289)	(3.6)
Prepaid Expenses and Other Assets	2,062,788	1,304,949	757,839	58.1
Total Assets	**103,152,404,457**	**110,165,111,659**	**(7,012,707,202)**	**(6.4)**
Liabilities				
Benefits Payable	120,372,871	114,904,201	5,468,670	4.8
Investment Commitments Payable	702,901,475	671,584,704	31,316,771	4.7
Obligations Under Securities Lending	8,167,622,811	7,933,640,759	233,982,052	2.9
Other Liabilities	18,449,688	19,162,159	(712,471)	(3.7)
Total Liabilities	**9,009,346,845**	**8,739,291,823**	**270,055,022**	**3.1**
Net Position Held in Trust for Pension Benefits and Post-employment Health Care	**$94,143,057,612**	**$101,425,819,836**	**($7,282,762,224)**	**(7.2%)**

Summary Comparative Statements of Changes in Fiduciary Net Position for all Plans and the Health Care Trust

This chart shows OPERS income (additions) and expenses (deductions) for 2018. Unlike 2017, when investment earnings were the main component of income, OPERS posted a loss from investing activity in 2018. Expenses (including pension benefit payments, health care coverage payments and account refunds) for 2018 were $7.5 billion. OPERS paid $6.1 billion in pension benefits and $0.9 billion in health care expenses, net of health care receipts, to more than 212,000 retirees and their beneficiaries.

What this means to members: OPERS anticipates that some years will yield negative returns. While we can absorb some negative returns, as responsible fiduciaries we must take all necessary steps to control expenses. As long-term investors, we must maximize the availability of investable assets—so that we take full advantage of generating income in years with strong markets.

	2018	2017	Amount Increase/ (Decrease) from 2017 to 2018	Percent Increase/ (Decrease) from 2017 to 2018
Additions				
Member Contributions	$1,455,771,629	$1,421,754,296	$34,017,333	2.4%
Employer Contributions	2,037,635,971	1,989,941,685	47,694,286	2.4
Contract and Other Receipts	81,169,718	93,061,535	(11,891,817)	(12.8)
Net Income/(Loss) from Investing Activity	(3,350,345,567)	14,619,914,555	(17,970,260,122)	(122.9)
Other Income, net	2,844,546	2,641,100	203,446	7.7
Interplan Activity	25,435,260	20,961,756	4,473,504	21.3
Total Additions	**252,511,557**	**18,148,274,927**	**(17,895,763,370)**	**(98.6)**
Deductions				
Pension Benefits	6,109,237,279	5,839,789,809	269,447,470	4.6
Health Care Expenses	1,119,824,690	1,194,744,342	(74,919,652)	(6.3)
Health Care Receipts	(249,539,771)	(242,742,769)	(6,797,002)	(2.8)
Refunds of Contributions	453,441,020	443,220,698	10,220,322	2.3
Administrative Expenses	76,875,303	77,305,480	(430,177)	(0.6)
Interplan Activity	25,435,260	20,961,756	4,473,504	21.3
Total Deductions	**7,535,273,781**	**7,333,279,316**	**201,994,465**	**2.8**
Net Increase/(Decrease)	**(7,282,762,224)**	**10,814,995,611**	**(18,097,757,835)**	**(167.3)**
Net Position Held in Trust, Beginning of Year	**101,425,819,836**	**90,610,824,225**	**10,814,995,611**	**11.9**
Net Position Held in Trust, End of Year	**$94,143,057,612**	**$101,425,819,836**	**($7,282,762,224)**	**(7.2%)**

2018 Investment Overview

The year 2018 was a difficult and unusual year with multiple asset classes generating negative returns. OPERS invests in global markets. We work to position the System to maximize opportunities and minimize unwarranted risk. This strategy enabled OPERS to track slightly ahead of benchmarks, but returns were down.

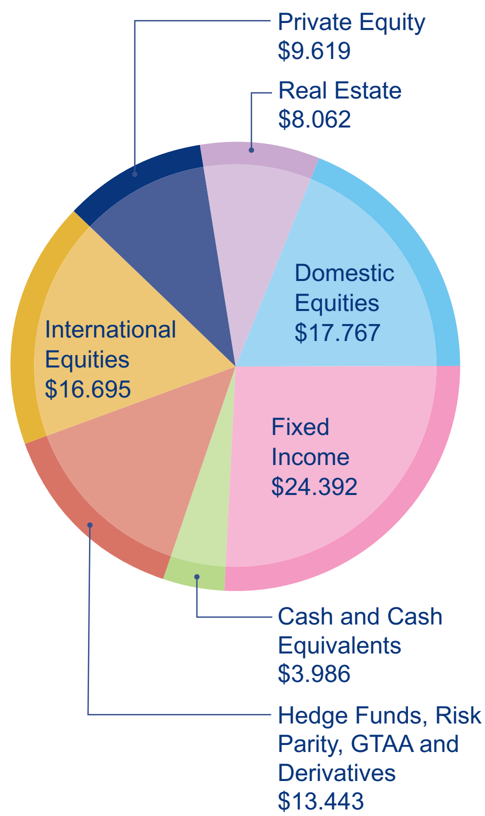
OPERS' total portfolio is made up of underlying portfolios that fund pension benefits and the health care program. The underlying investment portfolios are: the Defined Benefit portfolio, the Defined Contribution portfolio, and the Health Care portfolio. By portfolio, the 2018 returns were:

- The Defined Benefit portfolio returned a loss of 2.99 percent, compared to the benchmark return loss of 3.07 percent, and the anticipated actuarial funding plan rate of 7.20 percent.
- The Defined Contribution portfolio returned a loss of 6.65 percent, compared to the benchmark return loss of 6.64 percent.
- The Health Care portfolio returned a loss of 5.76 percent, compared to the benchmark return loss of 5.96 percent, and the anticipated actuarial funding plan rate of 6.00 percent.

Coming off the strong returns of 2017, OPERS had been in the position to eliminate some of the investment-income gap resulting from the financial crisis of 2008. Unfortunately, the negative returns of 2018 erased some of that gain.

What this means to members: Investment returns fund approximately one-half of pension benefits and the health care program. When more money is paid out than is received, and the market is poor, the financial stability of the System is eroded. Simply put, fewer assets are available to re-invest to generate returns in strong markets. OPERS can absorb the losses of 2018, but going forward we must be responsible in our actions and take every opportunity—however slight—to strengthen the System. Markets traditionally recover; we must be in the position to preserve as much of the asset base as possible so that we can generate the returns necessary to eliminate the income shortfall as we move forward. Over time, incremental enhancements will yield big results.

Total Investment Summary
(as of December 31, 2018, $ in billions)



Historical Investment Returns (net of fees)

Year	Total Portfolio Return	Total Defined Benefit Return	Total 401(h) Health Care Trust Return	Total 115 Health Care Trust Return (Health Care Portfolio)	Total Defined Contribution Return
2018	(3.38%)	(2.99%)		(5.76%)	(6.65%)
2017	16.62	16.82		15.25	17.39
2016	8.23	8.31[a]	4.73%[a]	5.11[a]	9.51
2015	(0.03)	0.33	(2.18)	(3.23)	(1.71)
2014	6.70	6.96	5.28	(0.03)[b]	4.83

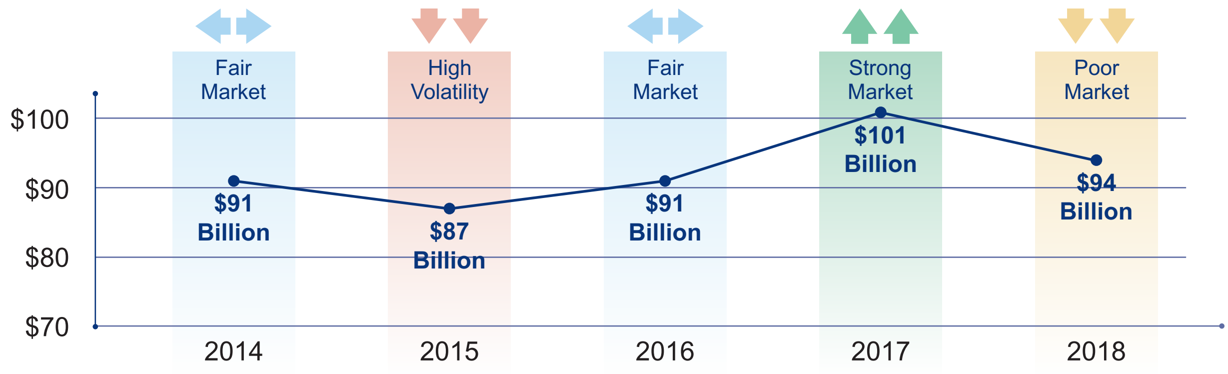
[a] Returns are six-month cumulative returns as of June 30, 2016 in the 401 (h) Health Care Trust. The 401(h) Health Care Trust and the Voluntary Employees' Beneficiary Association (VEBA) Trust were closed as of June 30, 2016. Prior to July 1, 2016, the VEBA Trust assets were included in the Defined Benefit portfolio. On July 1, 2016, the 401(h) Health Care Trust and VEBA Trust assets were transferred to the 115 Health Care Trust portfolio. The combined return on the total health care assets for the year ended December 31, 2016 was 7.55 percent. The number disclosed in the 115 Health Care Trust column in 2016, 5.11 percent, represents the return for the 115 Health Care Trust portfolio assets.

[b] The 115 Health Care Trust was established in September 2014. Returns are two-month cumulative returns in 2014 since funding of the 115 Health Care Trust portfolio began in November 2014.

OPERS Net Position

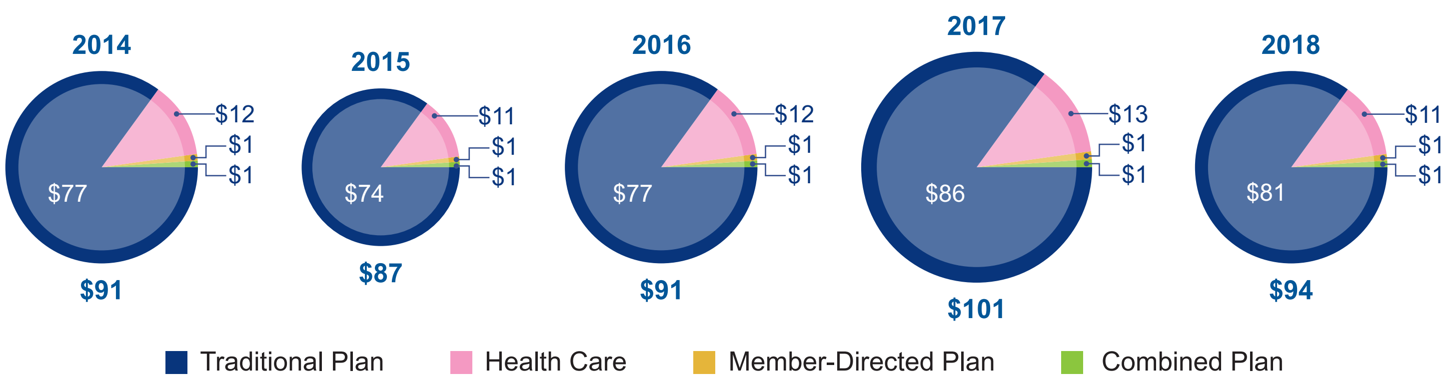
As of December 31, 2018, net position was approximately $94 billion. Here's the history of OPERS' total net position (or net assets) for the last five years:

Market Volatility Affects Financial Stability ($ in billions)



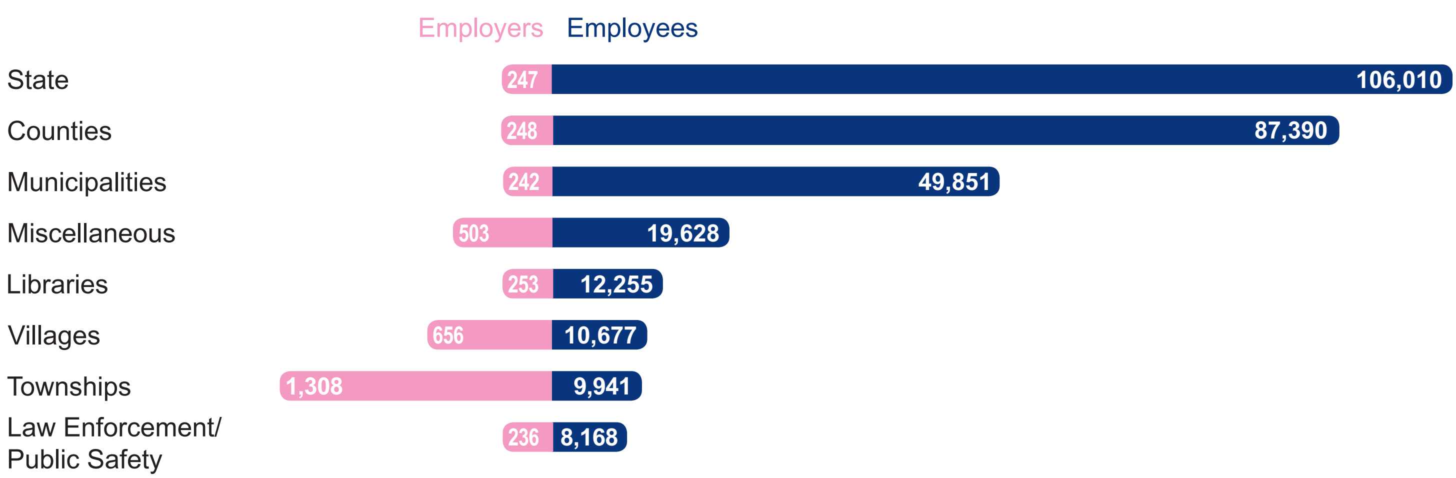
OPERS Net Position ($ in billions)

Presented here, funding by plan and trust for the last five years:



Ohio's Public Employees by Employer Type

OPERS serves almost 304,000 actively contributing members and nearly 3,700 employers who provide services to Ohio residents. This chart displays the number of active members who work in each of the primary employer groups, providing services that touch the lives of every Ohioan.



OPERS Provides Secure Retirement

Then and now: For more than 80 years, OPERS has consistently provided pension benefits to retirees and beneficiaries. That's more than 996 months of payments to each and every generation of retirees.

That's a remarkable statement, especially considering that much of the benefit funding comes from investment returns. How can OPERS deliver on its commitment year after year? Only through responsible actions and the courage to anticipate change. Our ability to anticipate challenges has enabled this System to absorb significant changes in our landscape and still deliver on our commitments. Challenges such as members living longer in retirement than ever before, volatile global markets and an ever-changing member-to-retiree ratio have placed deeper-than-expected strains on the OPERS foundation.

Consider some of the changes OPERS has navigated:

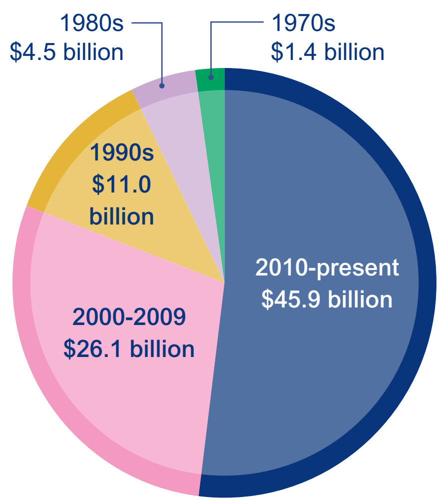
In 1938—three years after OPERS began operation as a pension system, the U.S. was still in the depths of the Great Depression. At that time, the cost of a movie ticket was 25 cents; a U.S. Postage stamp was 3 cents; and one dozen eggs was 18 cents. Life expectancy was between 55-63 years of age—depending on race and gender—many lived only a very few years into retirement.

In 1978—forty years after operations began, the U.S. was recovering from the mild 1973-75 recession. The cost of a movie ticket was $2; cost of a stamp was 15 cents; and cost of eggs was 48 cents. Life expectancy had jumped to between 69-74 years.

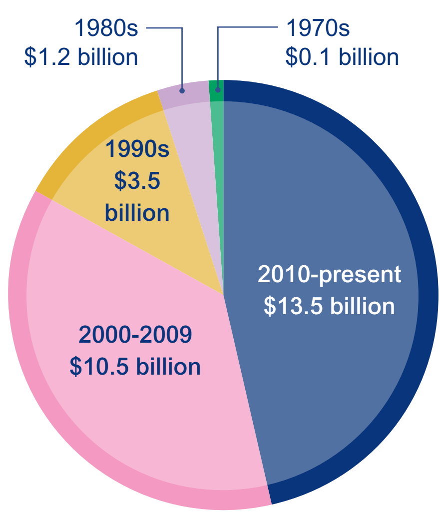
In 2018—the year of this annual report, the U.S. was still recovering from the Great Recession. The cost of a movie ticket was $10; cost of a stamp was 50 cents; and cost of eggs was up to $3. Life expectancy was more than 80 years.

This stability has been accomplished through responsible actions and the willingness to anticipate and accept change. Through all the growth, all the recessionary times, all the volatile markets, and all the increased time in retirement years, OPERS met every obligation—every time.

Since 1970, OPERS has paid out more than $88 billion in pension benefits. Here's how that looks by decade:



Since providing health care, OPERS has paid $29 billion in expenses.



OPERS has delivered on its commitment to every retiree generation—past and present—and works to deliver the same for future generations.

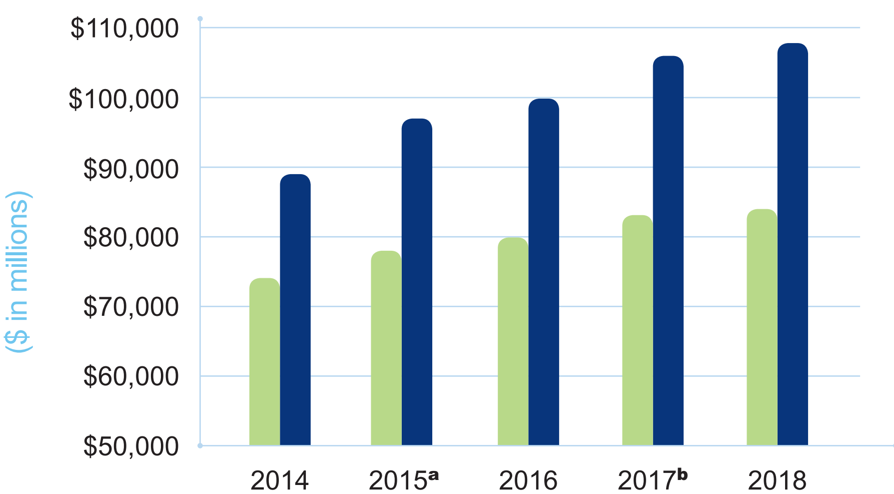
Pension Funding Status

Retiree pension benefits are funded by contributions from members and employers and income earned from responsibly investing these funds throughout a member's career. By law, OPERS must pay the pension benefits when a member retires.

OPERS is also required by law to remain within a 30-year funding window, meaning the System is in the position to be able to fund all pension liabilities within 30 years. Funded status measures the progress of accumulation of the funds necessary to meet future obligations. The December 31, 2018 valuation funded status was 77.5 percent. The unfunded liability was expected to be funded within 27 years on a funding basis.

What this means to members: We are dedicated to maintaining and enhancing the stability of this System. As a result, OPERS has remained in compliance within the 30-year funding window required by law. However, it must be noted that the funding status has been eroded due to the lower investment market of 2018. As of 2017, OPERS had a funded status of 78.5 percent with the unfunded liability expected to be funded within 25 years—figures that were eroded by the 2018 market. As always, OPERS must be diligent in making responsible decisions moving forward with the goal of improving funded status.

Pension Valuation Assets vs. Accrued Liabilities—Funding Basis[1] (All Plans)

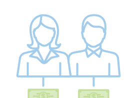


	2014	2015[a]	2016	2017[b]	2018
Funded Ratios	83.9%	80.3%	80.1%	78.5%	77.5%
Funding Years	21	20	19	25	27

Pension Assets   Accrued Liabilities

[a] Information after completion of the experience study.
[b] Information after change in discount rate from 7.5 percent to 7.2 percent.
[1] This table includes the funded ratio and funding years based on actuarial assumptions and includes the smoothing of investment gains and losses over a closed four-year period. Information shown on this funding basis is used to monitor the funding status of OPERS.

Here's How Pension Benefits Were Funded in 2018*:



23% Member Contributions

31% Employer Contributions

46% Accumulated Investment Earnings

*Figures reflect negative market returns—usually investment returns generate between one-half and two-thirds of pension benefit.

2018 Averages At-a-Glance

Here's the average benefits paid to retirees receiving a benefit under the Traditional Pension Plan. The cost of retirement will continue to increase as new retirees with higher final average salaries replace long-time retirees with lower final average salaries and as members continue to work longer.

Average Defined Benefits Paid to OPERS Retirees

Traditional Pension Plan—December 31, 2018

57.8
Average age at retirement

23.2
Average years of service at retirement

$43,386
Average final average salary

$21,456
Average pension at retirement

70.7
Average age on valuation date

$27,981
Average pension on valuation date

Life Expectancy for OPERS Members

Expected age of death for members of Social Security and OPERS who retired at age 62 in 2018.

85
OPERS

84
Social Security

88
OPERS

86
Social Security

OPERS Members Older Than 100 Years of Age

12
Men

80
Women

Age of oldest member
(as of 2018)

Average years...

16.3
of service credit

38.2
enjoying retirement

Pension Benefits by Type

Meeting Our Commitments

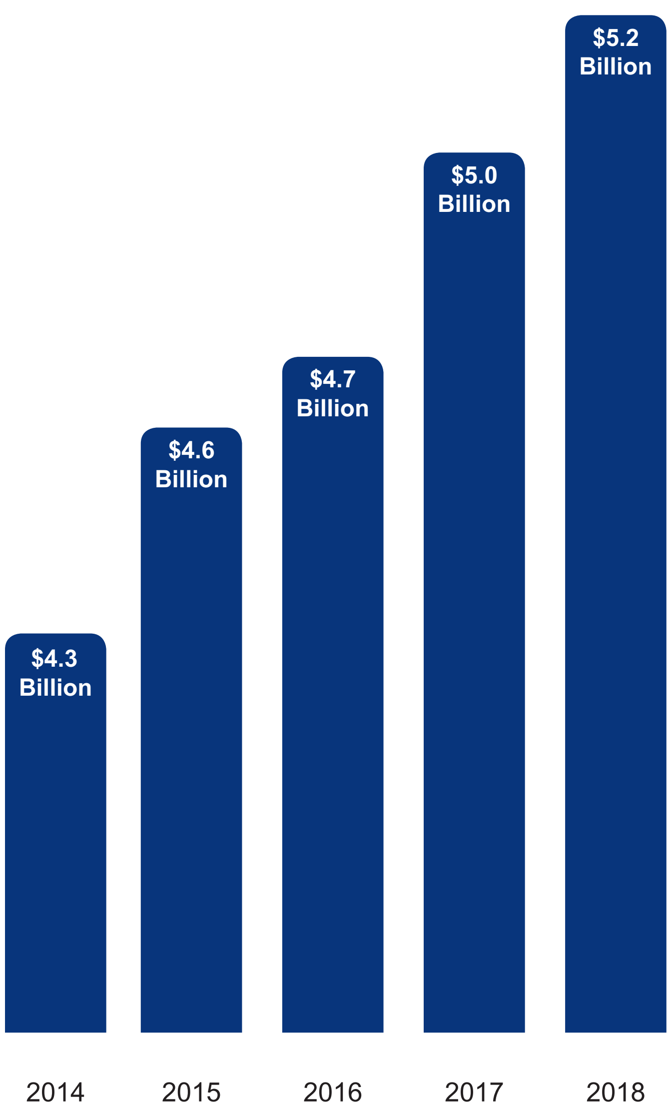
OPERS' mission is to provide financial security for our members in retirement. We do that by accepting contributions throughout an individual's working career. These contributions are then carefully and systematically invested to maximize earnings and the compounding effect of long-term contributions. Each OPERS Board, management and staff member remains dedicated to the fulfillment of this mission.

OPERS provides retirement benefits that include pension payments, disability benefits and survivor benefits. Retirees meeting specific requirements may also receive health care coverage. See page 16 for health care costs by type.

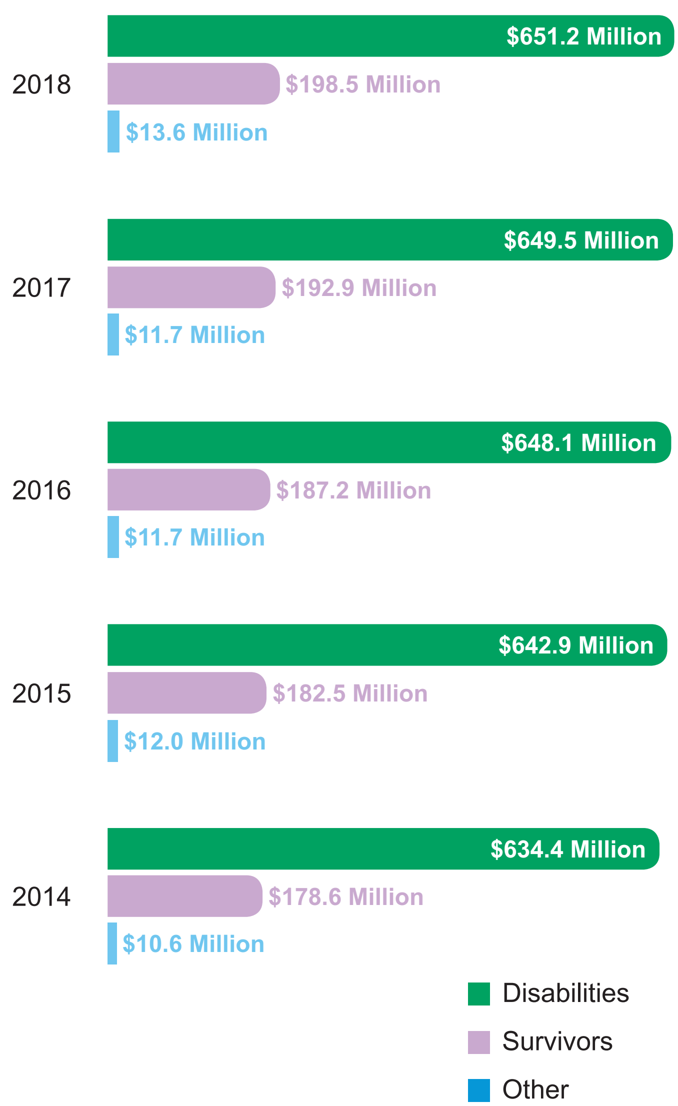
In general, defined benefit pensions (Traditional Pension and Combined plans) are determined by a formula based on the number of years of service and the highest years of salary, multiplied by a factor determined by statute.

The information below shows the trend in retiree pension benefits for the past five years. The graph tracks upward, and will continue to do so, as the number of retirees increases. In addition, as members continue to work longer, the value of their retirement benefit will continue to grow through wage increases—making the final average salary and service years higher.

Annuities and Installment Payments



Disabilities, Survivors, and Other Payments



Health Care Funding Status

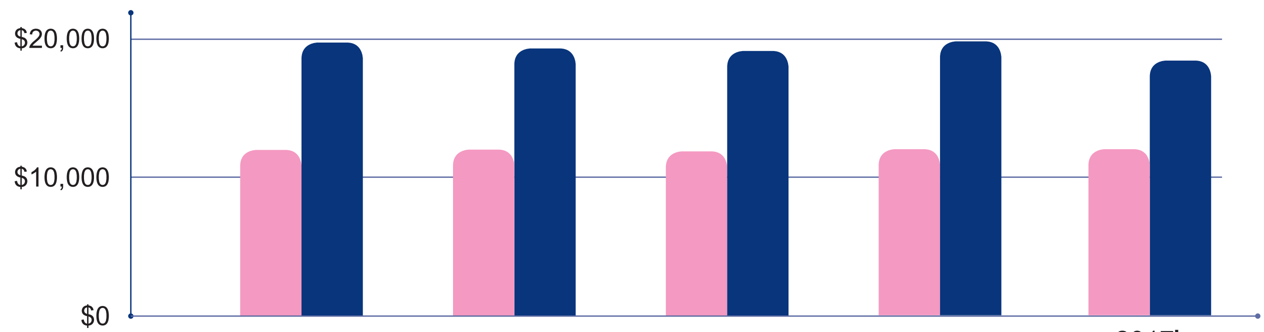
Health care is neither mandated nor guaranteed. The health care trust can only receive contributions if and when pension funding needs are met.

Long before health care became a national priority, OPERS recognized the importance of providing access to meaningful health care. Through the years, we worked to make responsible decisions to help ensure access to health care for all generations of OPERS retirees, present and future. We chose to responsibly pre-fund health care expenses and carefully evaluated and refined the health care options available—all the while investing funds to maximize growth and minimize risk.

What this means to members: As of the December 31, 2017 health care actuarial funding valuation (the most recent), OPERS was 65.4 percent funded. In the absence of employer contributions, the health care fund is expected to become insolvent after 13 years. This figure is expected to decline when the 2018 investment results are included in the 2018 health care valuation.

Health Care Ratios—Valuation Assets vs. Accrued Liabilities—Funding Basis[1]

($ in millions)



	2013	2014	2015[a]	2016	2017[b]
Funded Ratios	60.8%	62.2%	62.1%	60.7%	65.4%
Funding Years	Indefinite[2]	Indefinite[2]	Indefinite[2]	12	13

[a] Information after completion of experience study.
[b] Information after change in discount rate from 6.5 percent to 6.0 percent.
[1] This table includes the funded ratio and funding years based on actuarial assumptions and includes the smoothing of investment gains and losses over a closed four-year period. Information shown on this funding basis is used to monitor the funding status of OPERS.
[2] Funding years represent an estimate of the number of years the fund will be able to provide health care under the intermediate actuarial assumptions. Indefinite indicates funds are expected to be sufficient to fund future health care needs.

OPERS Recognizes the Importance of Health Care

OPERS works to provide access to meaningful health care. Similar to national trends, OPERS retirees have increased in number and have longer life expectancies than ever before. However, the change in demographics, combined with the cost of health care, has provided a significant drain on available resources.

Health care coverage is neither required nor guaranteed. OPERS is required to first meet the pension benefit commitment. Then, to the extent possible, funding for post-employment health care is permitted. Because of the erosion in the pension funded status, in 2018, the entire employer contribution was required to be allocated to pension funding. This allocation will continue until the pension funding improves.

As of December 31, 2017 (the date of the most recent health care actuarial valuation), the total health care liability was $18.4 billion. To meet this obligation, OPERS accumulated $12.0 billion in assets. This means the System had an unfunded liability of $6.4 billion.

The funded ratio for the health care program was 65.4 percent—meaning the health care fund has accumulated about 65 cents for each projected dollar in health care expenses.

Health care funding is measured in solvency years, or the number of years funds are projected to be available to pay health care expenses under the current plan. As of the latest health care actuarial valuation, health care funding was expected to remain solvent for 13 years before becoming a pay-as-you-go plan.

The solvency years for the health care program actually increased by one year in 2017 due to the strong investment results. Due to timing, health care results are reported a year in arrears, therefore, due to poor investment results in 2018, the solvency years will decrease. In 2018, OPERS kicked off a study to carefully review the program so that additional savings may be realized—savings that could extend the solvency years and provide access to future generations of retirees.

If the funding status of the pension fund improves, the Board may continue to pre-fund the health care program.

Shown below are the number of individuals covered by the OPERS health care program as of December 31, 2018. Beginning in 2016, all health care was funded via the 115 Health Care Trust.

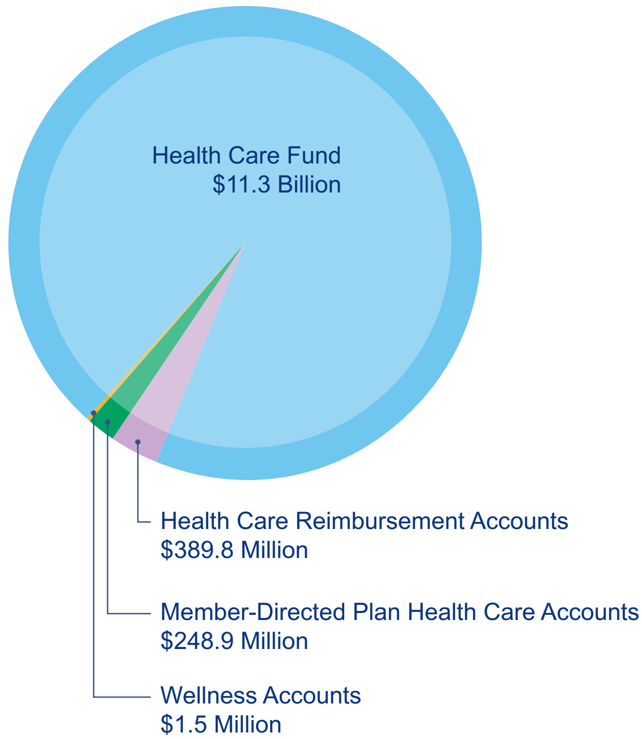
- The total reflects the number of retirees and primary beneficiaries, as well as additional dependents and other beneficiaries, receiving coverage through the Traditional Pension and Combined plans, or with a retiree medical account through the Member-Directed Plan.
- Beyond retirees, the primary beneficiary could include a surviving spouse or beneficiary of a deceased retiree eligible to receive coverage on the retiree's account.
- Member-Directed Plan retirees are not eligible for OPERS health care through the Traditional Pension or Combined plans, but may receive reimbursements for qualified medical expenses through a retiree medical account.

Health Care Covered Lives	
Traditional Pension Plan and Combined Plan Covered Lives	
Retirees & Primary Beneficiaries	146,410
Dependants & Other Beneficiaries	31,670
Member-Directed Plan Retiree Medical Accounts	
Retiree Recipients	6,660
Total	**184,740**

Health Care Funds by Type

OPERS notionally funds and tracks member balances in health care reimbursement accounts for Medicare-enrolled retirees that qualify to participate in health care. Additionally, OPERS funds Member-Directed Plan health care accounts and Wellness health care accounts. The financial statements recognize health care payments as liabilities when claims are incurred by members (currently due and payable).

As a result, unspent balances remaining in member health care accounts are not recorded as liabilities in the financial statements. Total funds held in trust restricted for health care costs of all OPERS health care plans were $11.3 billion as of December 31, 2018. OPERS is not required to disclose the funds restricted for health care by individual plans; funds set aside in member health care accounts are tracked. Included in the $11.3 billion are restricted member health care account balances in the health care reimbursement accounts, Member-Directed Plan health care accounts, and Wellness accounts.



Access to Meaningful Health Care

An ounce of prevention is worth a pound of cure. Similarly, even the best health care program cannot create good health.

The best way to preserve health care programs and your health is to make good decisions—at every stage of your life. All members are encouraged to make lifestyle decisions that provide prevention—meaning decisions designed to ensure good health is preserved and enhanced.

Although health care is neither mandated nor guaranteed, OPERS works to ensure each generation of members have and will have access to affordable health care. Maintaining access to meaningful health care without jeopardizing pension funding is an overarching goal.

Some of the best healthy lifestyle decisions are straightforward:

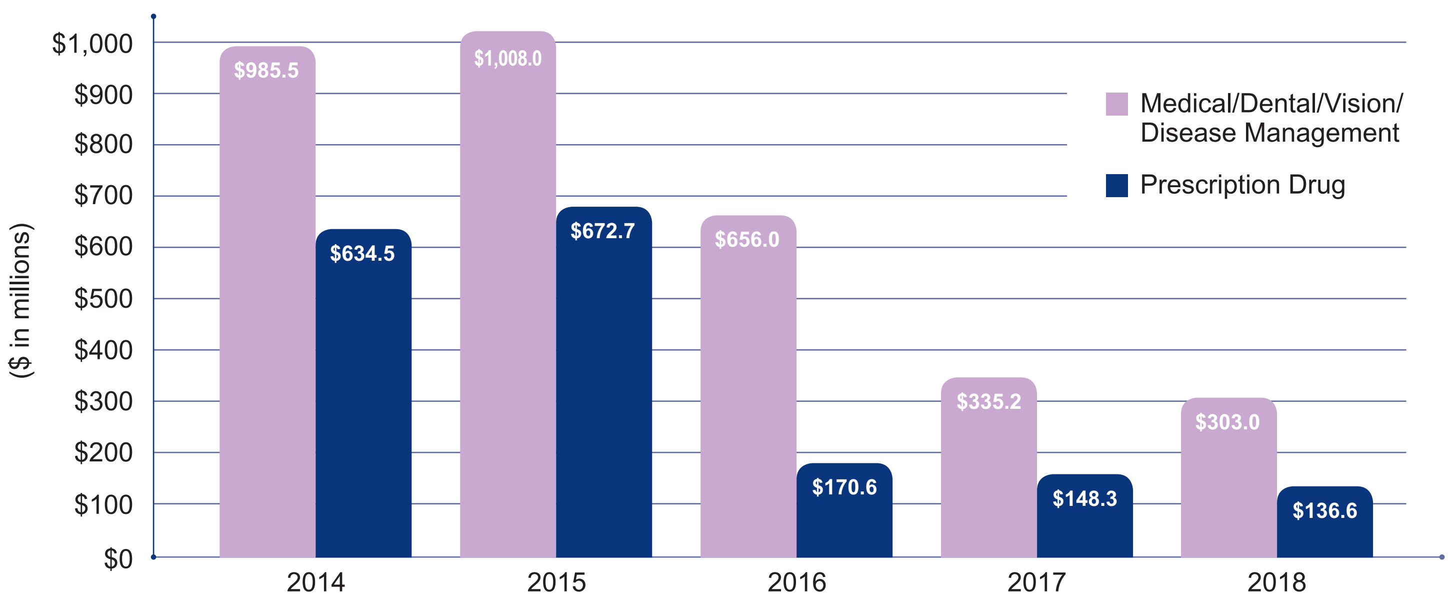
- **Electronics warning—**Every year, almost 1.6 million people across the U.S. have a cell-phone involved accident. Choose the healthy decision of creating tech-free zones in your home and car—so that you can show up healthy and accident-free wherever your life takes you.
- **There is no safe tobacco—**If you smoke, quit; if you don't smoke, don't start. Approximately $132-175 BILLION will be spent on direct medical care for adult smokers. Nearly 70 percent of current smokers' medical care costs could be prevented by quitting.
- **Chronic disease update—**The onset of some chronic diseases can be delayed or eliminated. For example, are you at-risk for diabetes? Losing weight and regular exercise are choices you can make that could significantly reduce your risks.

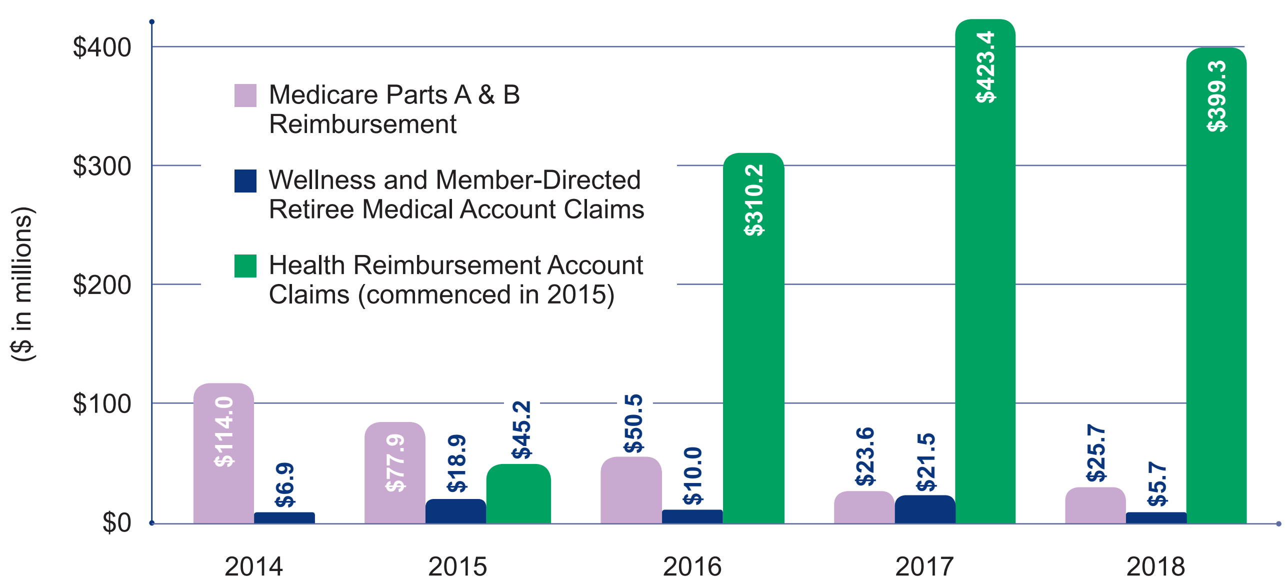
Health Care Costs

Although not required, health care coverage remains available to Traditional Pension Plan and Combined Plan retirees and their dependents. On average, disability recipients comprise 10 percent of the retiree population but represent 24-27 percent of health care expenses. OPERS periodically reviews and modifies the health care program to maintain the solvency of the health care fund for current and future retirees.

Plan design changes implemented in 2012, with phased-in implementation dates, were designed to strengthen the health care program to preserve access to meaningful health care coverage for both current and future retirees. Changes, such as the 2015 change requiring new retirees to have 20 years of qualifying service credit to receive health care coverage and the 2016 Connector implementation, help OPERS maintain a meaningful health care program. In 2018, OPERS initiated an additional review of the health care program—a responsible action.

The following charts show health care costs by type for the past five years.





Plan Overviews and Enrollment Figures

OPERS offers members three retirement plans—each provides different features designed to accommodate individual member's knowledge base and risk tolerance. Take a look:

Traditional Pension Plan: Retirement benefit is based on a defined benefit formula determined by years of contributing service and final average salary. OPERS handles investments and absorbs all risk. Ideal for those who want security in retirement, have a low risk tolerance and low desire to handle financial transactions.

Member-Directed Plan: Retirement benefit is based on member contributions, vested employer contributions and the gains and losses on those contributions. Members choose from a variety of OPERS selected funds—including fixed income and equity funds, target date funds and a self-directed brokerage account. Provides control but significant risk for members.

Combined Plan: Hybrid plan where member contributions are deposited into a self-selected account (like Member-Directed Plan) and employer contributions are deposited into the guaranteed defined benefit option (like Traditional Pension Plan).

Each person has a different risk tolerance, retirement needs and willingness to handle financial transactions.

The chart below displays the number of active, inactive and retired members in each plan as of December 31, 2018. Inactive members are no longer contributing to OPERS, but have not refunded their accounts and may be eligible to receive a retirement benefit.

	Traditional Pension Plan	Combined Plan	Member-Directed Plan	Total
Active Members	**285,487**	**7,692**	**10,741**	**303,920**
Average Age	44.3	44.6	44.4	
Average Service Credit (Years)	10.629	8.647	5.920	
Final Average Salary	$40,712	$50,903	$50,389	
Inactive Members[1]	**620,572**	**2,143**	**5,376**	**628,091**
Average Age	38.8	41.8	37.7	
Average Service Credit (Years)	1.243	4.520	2.792	
Final Average Salary	$6,129	$33,283	$29,311	
Retired Members	**212,338**	**337**	**278**	**212,953**
Average Age	69.6	68.0	69.1	
Average Service Credit (Years)	22.457	10.649	N/A	
Average Annual Benefit	$28,162	$7,325	$4,981	
Total Members	**1,118,397**	**10,172**	**16,395**	**1,144,964**

[1] Inactive members no longer contribute, but still have an account that may be activated upon return to public service and may be eligible to receive a retirement benefit.

Pensions Are Good for Ohio, Consider This:

As the largest public pension system in Ohio, and the 12th largest in the U.S., OPERS is a significant economic driver for the state. The majority of our one million members and retirees live and work in Ohio, providing economic stability throughout the state.

For every dollar received by OPERS from public employers in 2018, $3.43 is returned to the economy through pension and health care payments made to retirees—retirees who spend the majority of retirement proceeds on goods and services within the state.

Here is some additional activity as of and for the year ended December 31, 2018:

$5.5 billion

Pension benefit payments to Ohio residents

$900 million

Health care costs on behalf of retirees and their beneficiaries

$1.7 billion

Assets invested with Ohio-based companies

$500 million

Assets under management with Ohio-qualified investment managers

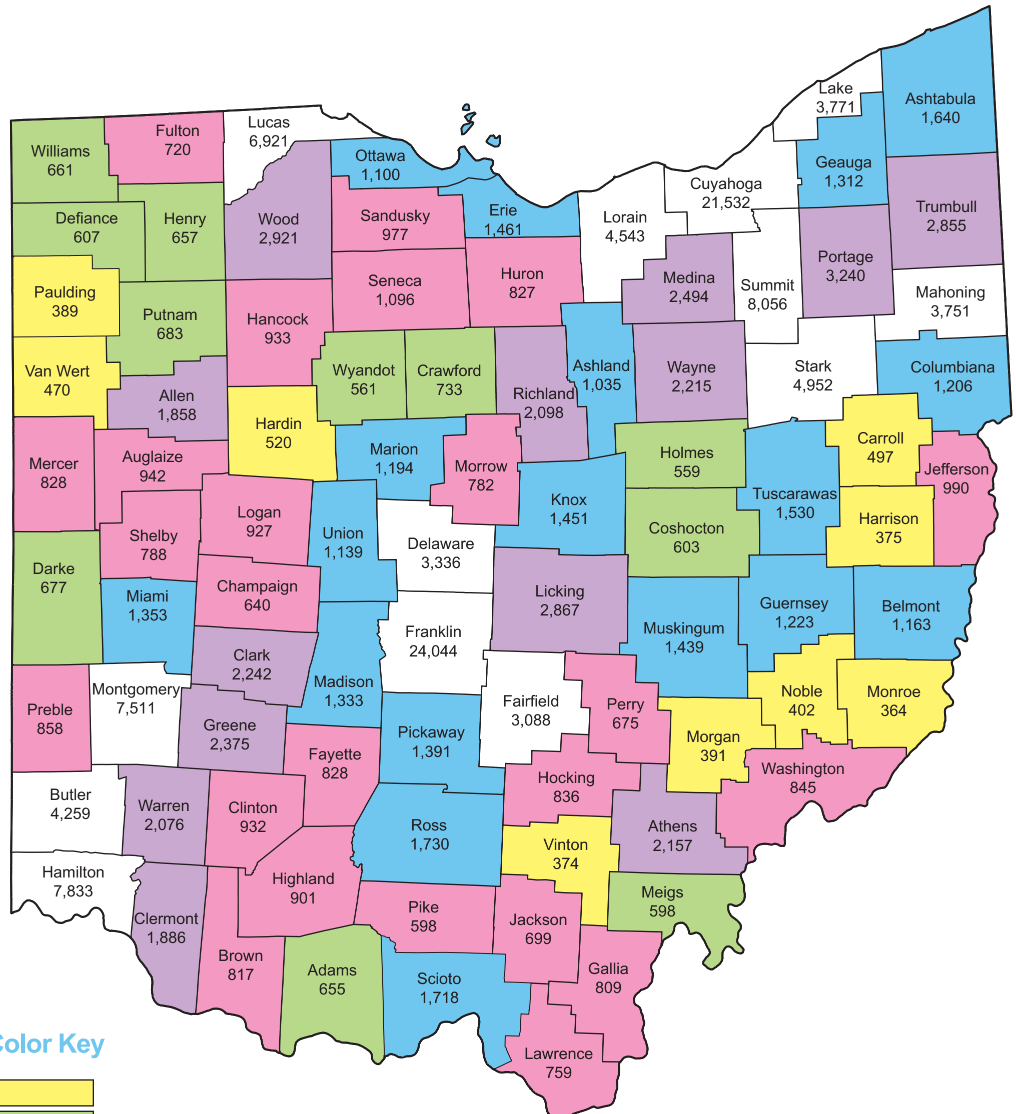
$5.6 million

Investment fees paid for in-state custodian and to Ohio-qualified investment managers

$92.4 billion

Assets under management by in-state custodian

2018 Pension Benefits and Retirees by Ohio County

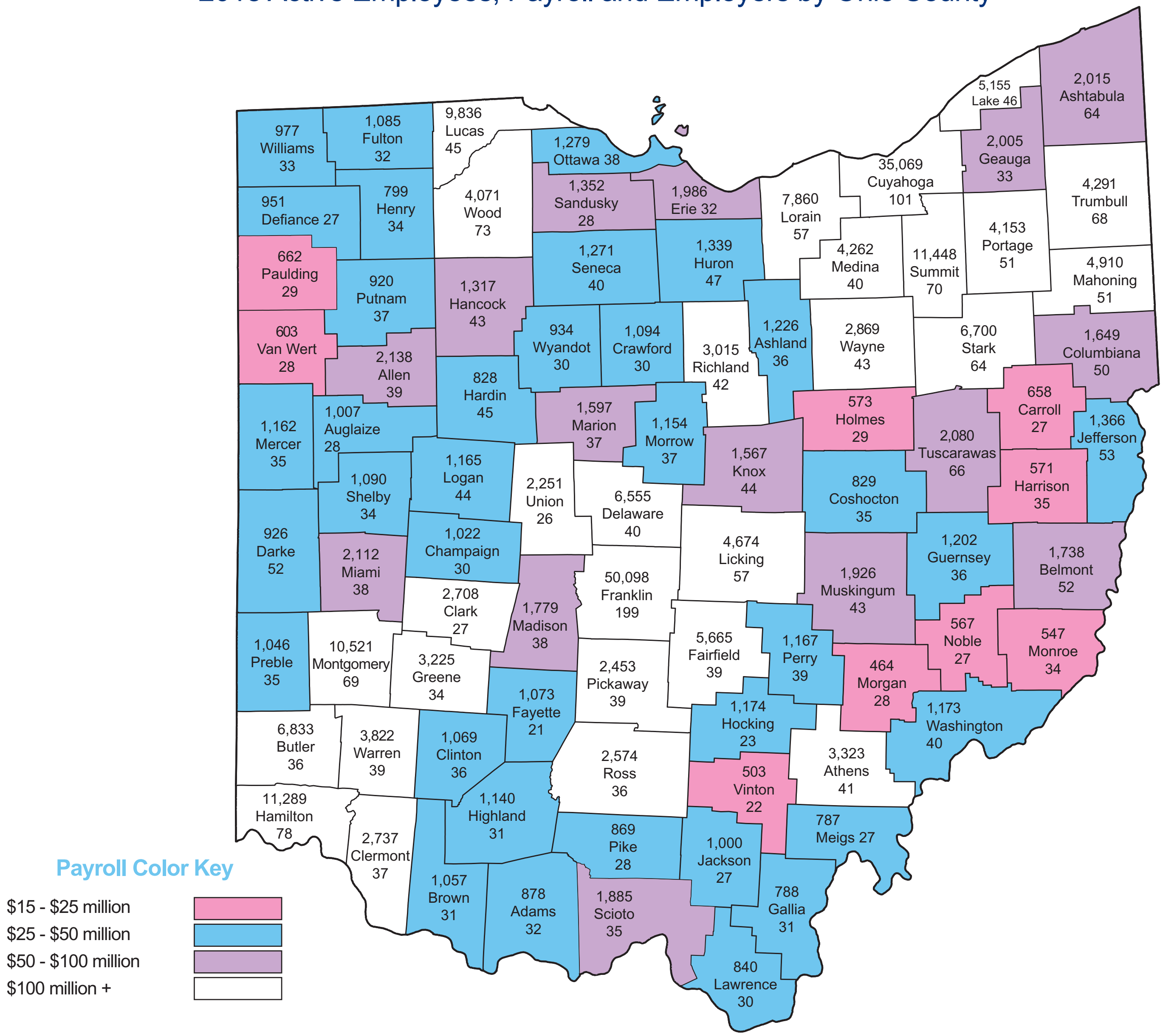


Pension Benefits Color Key

- $0 - $10 million
- $10 - $15 million
- $15 - $25 million
- $25 - $50 million
- $50 - $100 million
- $100 million +

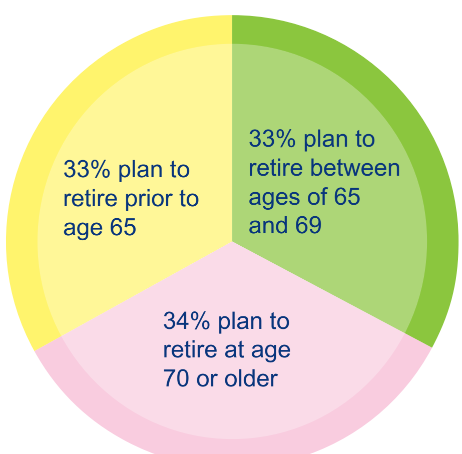
- Of the 212,937 OPERS retirees, 190,082, or 89.3 percent, remained Ohio residents as of December 31, 2018.
- Pension benefit payments of almost $5.5 billion were distributed throughout Ohio to retirees and their beneficiaries, representing the OPERS impact on the state's economy.

2018 Active Employees, Payroll and Employers by Ohio County



When to retire?*

When considering having money in retirement, consider your age. The longer you work, the longer you earn and save—AND the fewer years in retirement to rely on retirement savings. Remember, *eligible to retire* does not mean you *must* retire.



Depending on age, approximately 38 percent of workers retire earlier than anticipated—meaning retirement savings may not be in place.**

*Employee Benefit Research Institute

**Center for Retirement Research

Focus on Retirement

Preparing for financial security in retirement takes a lifetime. *All* members, regardless of career cycle, are encouraged to focus on responsible behaviors.

Responsible financial behaviors:

- Understand your retirement goals and needs
- Increase savings rates
- Control debt; live within your income
- Start saving for retirement as early as possible
- Leverage financial wellness education programs (such as the one offered through OPERS)
- Understand, and harness, the power of investing—understand the importance of diligent funding and asset allocation

Outreach and Education

The decision to retire is not an easy one. To help, OPERS provides extensive member education and outreach—especially during times of anticipated change. We work to ensure all stakeholders understand the challenges, their responsibilities and have the opportunity to provide feedback and ultimately understand outcomes.

- We work to provide plain-language information on plan types, benefits options and the financial realities of retirement and more to each audience.
- Hundreds of thousands of members received accurate, personalized, account information via an annual account statement to help ensure each understands the status of benefits earned.
- More than 830 educational seminars and webinars were conducted throughout the state.
- The OPERS website attracted almost 1,600,000 individual hits, while the Member Services Call Center fielded almost 400,000 calls.
- Staff conducted specialized seminars throughout the state to educate members on the pension and health care funding challenges and to ensure members were informed of the process that will be used to consider options.
- In addition to print where requested, OPERS deployed electronic distribution for communication via email blasts, social media outlets and a newly revised, user-friendly website.

Good for Current and Future Retirees (continued)

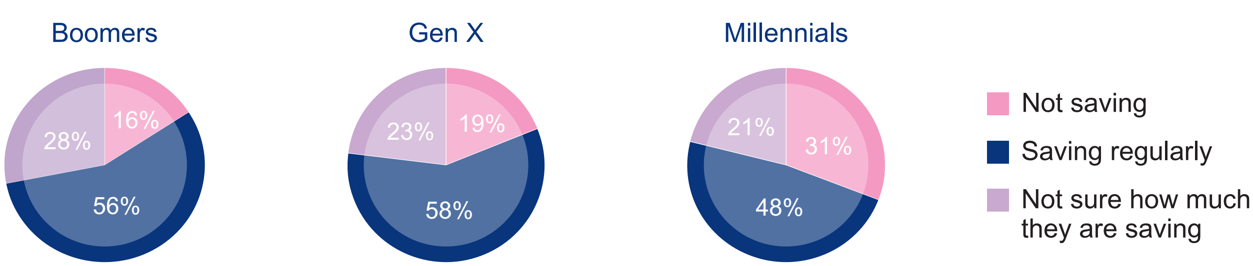
Financial Responsibility—What's Your Financial IQ?

Most financial experts agree that true financial security only comes with knowledge about finances and active planning for the future. To that end, all OPERS stakeholders are urged to accept personal financial responsibility. At every stage in a member's career, financial responsibility with an eye to the future is essential. After all, eligible to retire does not mean required to retire—members should retire ONLY when they are financially secure. Consider these facts:

- Many financial experts caution that pension plans should only account for about half of a retiree's income—the other half should come from other sources (savings, investments, annuities or individual retirement accounts (IRAs)).
- New to your public career? Most retirees will tell you that retirement comes around in the blink of an eye. Take actions now to ensure you have a secure retirement. Start by creating a personal budget you can stick to—establish goals and know exactly what you have (assets) and what you owe (liabilities).
- At any point in your career, establish a savings system that works for you—remember small actions can add up to big accounts. Emergencies happen in life—make sure you have an emergency savings account.
- Use credit responsibly and understand the importance of a strong credit score. Your credit score is a big factor in determining how much interest you'll pay when going for a loan.
- Strong finances are more than just dollars and cents. Studies show that the price of chronic, unresolved money problems can cause low self-esteem and can even affect your focus and your health. Simply put, when you're stressed about finances, it's more difficult to learn, remember or solve problems—reducing your effectiveness at work and at home.

Looking for more information? The OPERS website has a Financial Wellness kit that will help.

Percent of Individuals Saving for Retirement*



*2018 Retirement Preparedness Survey

1,145,000
members

$94.1 billion
net asset base

OPERS is an important economic driver for the state of Ohio—we are the largest public pension system in Ohio and the 12th largest public pension system in the nation.

Since 1935, OPERS has worked to provide financial security for OHIO public employees in retirement. As of 2018, OPERS served approximately 1,145,000 members and worked with some 3,700 public employers that employed almost 304,000 Ohioans.

Employers and employees make retirement contributions each month throughout each public employee's working career. In total (including earned investment returns), OPERS as of 2018 had a net asset base of $94.1 billion. Although a significant investable asset base, OPERS must diligently monitor that asset base and make the right decisions to maintain the funding window required by law.

2018
Pension Benefits Paid
$6,109,237,279

2018
Health Care Expenses
$1,119,824,690

OPERS Works to Minimize the Impact of Change: Here's How

To survive—organizations and individuals must adapt to change. That said, most find change to be somewhat unsettling. We know that. That's why we work to minimize the impact of any change made that may affect our stakeholders.

Through the years, any change proposed has one common goal—to strengthen the stability of the System so that our commitment to current and future generations of retirees can continue to be met. Commitments are met because OPERS anticipates needs, proposes potential solutions and works to scrutinize those solutions from every possible angle. We seek input from experts, value the thoughts of stakeholders and always, always work to educate all on the importance of any proposed change. We are neither haphazard nor impulsive. When changes are implemented, they are implemented in a cautious and caring manner.

The ability to anticipate and adapt to our world has enabled OPERS to continue to absorb events such as poor markets and increased longevity without jeopardizing our commitment to members.

OPERS Board of Trustees and Leadership

Board of Trustees

OPERS management and staff work closely with the members of the OPERS Board of Trustees—the governing body of OPERS that is ultimately responsible for the administration and management of all OPERS activities. This dedicated Board meets monthly and receives no compensation, but is reimbursed for necessary expenses.

Stairs, left to right:
James Tilling, General Assembly Appointed Investment Expert; Matthew Damschroder, Director Department of Administrative Services (Statutory Member); Harold Charles Elliott, Governor-Appointed Investment Expert; Tim Steitz, Representative for Retirees; Lance Osborne, Treasurer-Appointed Investment Expert

Bottom row, left to right:
Julie Albers, Representative for County Employees; Chris Mabe, Representative for State Employees and Board Vice Chair; Randy Desposito, Representative for Non-Teaching College/University Employees; Cinthia Sledz, Representative for Miscellaneous Employees; Steve Toth, Representative for Retirees; Ken Thomas, Representative for Municipal Employees and Board Chair

Leadership Team

Leadership Team (left to right): Eric Harrell, General Counsel; Tonya Brown, Director—Member Operations; Jennifer Starr, Director—Finance; Gordon Gatien, Director—External Relations; Allen Foster, Director—Benefits; Karen Carraher, Executive Director; Chuck Quinlan, Director—Information Technology; Paul Greff—Chief Investment Officer; Caroline Stinziano, Director—Internal Audit; Mindy Bailey, Director—Human Resources

By Phone:
Member Services Center
1-800-222-PERS (7377)
8 AM–4:30 PM Monday–Friday

By Mail:
Ohio Public Employees Retirement System
277 E. Town St.
Columbus, OH 43215

Online:
opers.org

Online Accounts:
https://member.opers.org

Facebook:
facebook.com/ohiopers

Twitter:
twitter.com/ohiopers

Mission

To provide secure retirement benefits for our members.

Vision

To be your trusted retirement partner delivering responsive high-quality service.

OPERS

277 East Town Street, Columbus, Ohio 43215-4642 | 1-800-222-PERS (7377) | www.opers.org