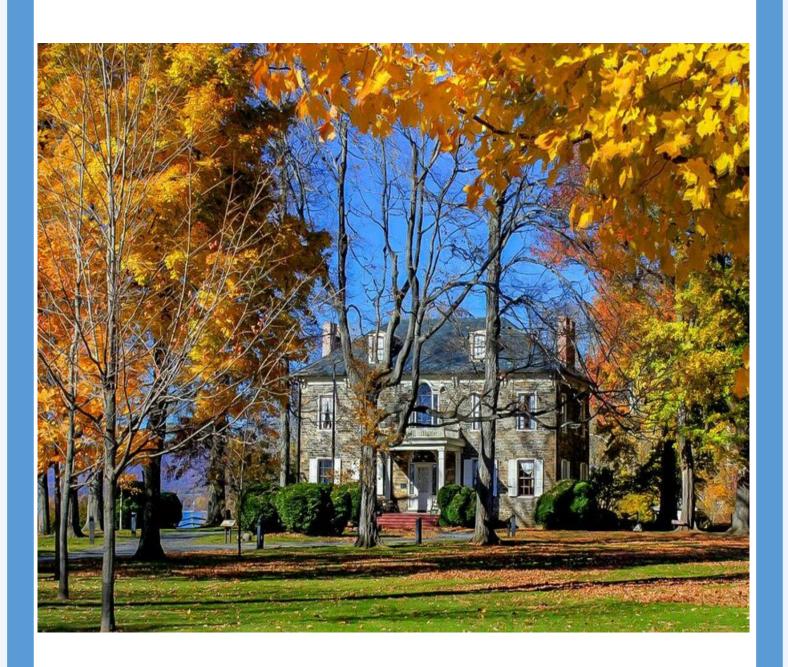
DAUPHIN COUNTY EMPLOYEE RETIREMENT FUND

SUMMARY REPORT FOR 2020



PREPARED BY THE OFFICE OF THE DAUPHIN COUNTY CONTROLLER
JAMES E MARKEL, ACTING SECRETARY, DAUPHIN COUNTY RETIREMENT BOARD



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^{*}Photo on page 15 is courtesy of Visit Hershey Harrisburg

A Message from the Acting Controller

It is with great pleasure that I present to you the Dauphin County Employee Retirement Fund Summary Report which contains fund activity from January 1, 2020 through December 31, 2020. I have strived to continue the work done by our previous Controller, Timothy L. DeFoor, when he began presenting this report to bring information to the public in an easy-to-understand format to improve the transparency of government activities which includes historical data and statistics.

The 2020 summary report includes a glossary at the beginning to help the reader understand important investment and pension terminology. You will also find helpful information on the County's retirement plan membership, the fund's portfolio, the fund's investments and the rate of return, fund expenses and contributions as well as information on the investment managers for 2020.

The Dauphin County Retirement Board operates under the County Pension Law, Act of August 31, 1971, P.L. 398, No. 96, as amended, 16 P.S. §11651, et seq. As provided by law, the Retirement Board members are the County Commissioners, the County Controller and the County Treasurer. The Chairman of the Board of Commissioners is the Chairman of the Retirement Board. The members of the Retirement Board are the trustees of the Fund and are responsible for the management and investment of the Fund. In my role as Acting Dauphin County Controller, I also serve as the Acting Secretary of the Dauphin County Retirement Board. Serving with me on the Retirement Board are Chairman Jeff Haste, Commissioner Mike Pries, Commissioner George Hartwick III, and Treasurer Janis Creason.

It is a privilege to work alongside the many dedicated and hard-working employees of Dauphin County, and I am honored to have the responsibility of serving on the Dauphin County Retirement Board and would like to thank the County staff for supporting our retirees. Hopefully, this report is interesting, helpful and informative to the people who matter most, you the citizens and employees and retirees of Dauphin County.



Sincerely,

James E. Markel Dauphin County Acting Controller

Jame & Markel

Dauphin County Retirement Board Members*



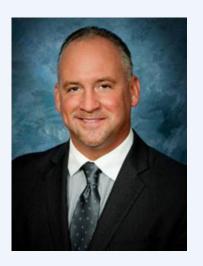
Jeff Haste Chairman



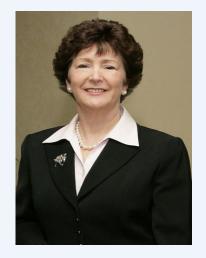
Mike Pries Board Member



Timothy L. DeFoor Secretary



George P. Hartwick III Board Member



Janis Creason Board Member

Terminology

Actuary

A professional who assesses the expected value and potential risks of pension plans by recommending appropriate actuarial assumptions and developing a pattern of future contributions to help ensure assets are available to provide the benefits when due to members.

Actuarial Assumption

An assumed rate or likelihood of an unknown future occurrence. Key actuarial assumptions for pension plans include the assumed rate of future investment returns, the assumed rates of future retirements, and the assumed rates of future mortality for members.

Actuarial Valuation

A measurement that estimates the present value of benefits that are expected to be paid from a pension plan. The estimated future benefit payments are based on the member demographics and a set of actuarial assumptions for the future experience of the plan and the members.

Appreciation

An increase in the value of an asset over time. The increase can occur for a number of reasons, including increased demand or weakening supply, or as a result of changes in inflation or interest rates. This is the opposite of depreciation, which is a decrease over time.

Fiduciary

A person or organization that acts on behalf of another person or persons to manage assets. Essentially, a fiduciary owes to that other entity the duties of good faith and trust. The highest legal duty of one party to another, being a fiduciary requires being bound ethically to act in the other's best interests.

Fixed-Income Investments

A type of investment in which real return rates or periodic income is received at regular intervals and at reasonably predictable levels. Fixed-income investments can be used to diversify one's portfolio, as they pose less risk than equities and derivative investments.

Fund Custodian

A financial institution that holds customers' securities for safekeeping so as to minimize the risk of their theft or loss. A custodian holds securities and other assets in electronic or physical form. Since they are responsible for the safety of assets and securities that may be worth hundreds of millions or even billions of dollars, custodians tend to be large and reputable firms. A custodian is sometimes referred to as a "custodian bank."

Market Value

The price an asset would fetch in the marketplace. Market value is also commonly used to refer to the market capitalization of a publicly traded company and is obtained by multiplying the number of its outstanding shares by the current share price.

Net Position

The value of one's investment position, calculated as the position's market value less the initial cost of entering that position.

Present Value

The current value of a future sum of money or stream of cash flows given a specified interest rate, commonly referred to as the discount rate or the investment return rate. For a pension plan, a lower discount rate or investment return rate will increase the present value of future benefit payments and require additional expected contributions to fund the benefits. Determining an appropriate discount rate is key to properly valuing future benefits.

Rate of Return

The net gain or loss on an investment over a specified time period, expressed as a percentage of the investment's initial cost plus any additional contributions or minus any withdrawals. Gains on investments are defined as income received plus any capital gains realized on the sale of the investment.

Volatility

A statistical measure of the dispersion of returns for a given security or market index. In most cases, the higher the volatility, the riskier the security. Volatility is usually measured using the standard deviation of returns. Usually, the higher the volatility, the riskier the security.

Yield

The income return on an investment, such as the interest or dividends received from holding a particular security. The yield is usually expressed as an annual percentage rate based on the investment's cost, current market value, or face value. Yields may be considered known or anticipated depending on the security in question as certain securities may experience fluctuations in value.

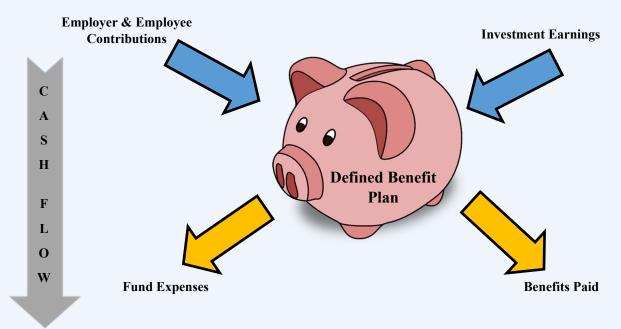
*Many terms and definitions in the Glossary of Terminology were sourced from Investopedia.com

Defined Benefit Pension Plan

The Dauphin County Retirement Trust Fund (Fund) is a single employer contributory defined benefit plan covering all full-time employees of the County and part-time employees exceeding 1,000 hours per year. Management of the Fund is vested in the Retirement Board, which consists of five members: the three County Commissioners, the County Controller, and the County Treasurer. The Plan provides retirement, disability, and death benefits to its members and their beneficiaries.

The pension plan is identified as a "defined benefit" plan because it provides a benefit that is specified by a calculation that accounts for length of employment, salary history, and benefit class. A defined benefit plan differs from a defined contribution plan as employees are provided a specific benefit upon retirement. Additionally, retirement benefits for plan members are calculated as a percentage of the member's highest 3-year average salary multiplied by the member's years of service multiplied by class basis. Annual County contributions are calculated and recommended by the County's actuary.

In addition to the county benefits, employees contribute a minimum 5% of annual pay, which provides an additional employee benefit "cash balance." Employees may also choose to contribute up to an additional 10% of gross pay after taxes. Plan members with 20 years of service are eligible to retire at age 55, while any plan member that has attained age 60 is eligible to retire. All plan members are eligible for disability benefits after 5 years of service if disabled while in service and unable to continue as a County employee. Disability retirement benefits are equal to 25% of the highest average salary at the time of retirement. The death benefits for a member who dies with 10 years of service prior to retirement is the total present value of the member's retirement paid in a lump sum.



Plan Membership Status

The graph below displays membership status for employees participating in the plan from 2017 through 2020. As of December 31, 2020, there were 2,937 Plan members. Of these members, 1,439 were active members, 1,249 were retired members or beneficiaries currently receiving benefits, and 249 are terminated Plan participants entitled to but not yet receiving benefits.

Active member- An individual currently employed by the County that is contributing to the Pension Plan. An active member does not include a member receiving disability benefits.

• Includes full time employees and part time employees exceeding 1,000 hours per year

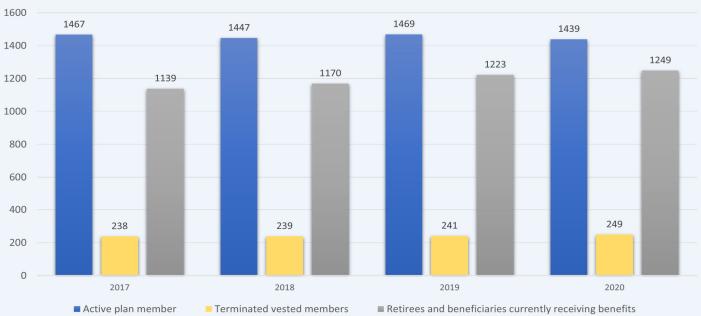
Terminated vested member- Former employee who earned vested benefits by working for five (5) years or more has terminated employment with the County and is not yet receiving retirement benefits.

• Such participants can receive benefit payments from the Plan once they reach the Plan's normal retirement age or, if the Plan allows, the Plan's early retirement age

Retiree/beneficiary- A Plan member who is retired and receiving benefits, or their beneficiary.

• Eligible for retirement at age 60, or age 55 with 20 years of credited service

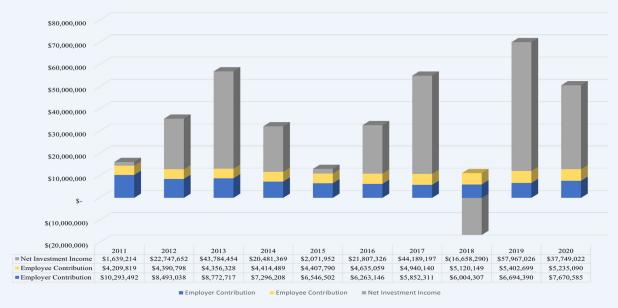
Retirement Plan Membership Status



Pension Plan Cash Flow

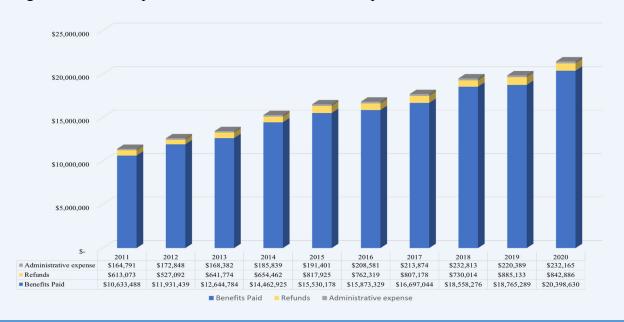
Additions by Type

In 2020, Dauphin County reported total Pension Plan additions of \$50,654,697. The additions consist of net investment income, employee contributions, and employer contributions. This amount has decreased by 27.7% since 2019.



Deductions by Type

Dauphin County has accounted for a total of \$21,473,682 in deductions for the year 2020, a value 8.1% greater than expenses from the previous year. These deductions are broken into the categories of benefits paid, refunds, and administrative expenses.



Cost of Living Adjustment (COLA)

The cost-of-living adjustment is an increase to a retiree's pension payment to account for inflation. The cost-of-living must be reviewed at least once in every three (3) years and adjustments are provided at the discretion of the Dauphin County Employees' Retirement Board. Only pension plans with an 80% or higher funded ratio can approve a COLA. The Board granted its first cost-of-living increase in January of 1972, and since then as follows:

Effective Dates of Increase		
1/1/1973	1/1/1998	
2/1/1975	1/1/1999	
7/1/1979	1/1/2006	
1/1/1985	1/1/2007	
1/1/1992	1/1/2019	
1/1/1997		

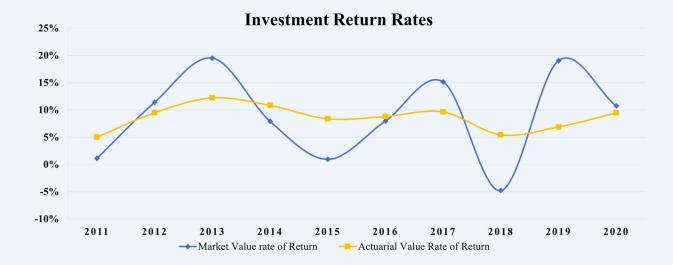
Although no COLA was approved for 2020, the estimated adjustment would have been .42%. This adjustment would have increased the amount payable to those members who retired in 2019 and prior years by \$677,234. To fund this adjustment, the County's actuarially determined contribution would have increased by \$166,278 for each year over a five (5) year period, beginning with 2021 contributions. This funding requirement would have also increased the present value of future benefits for retired members.

2020 COLA Calculation			
Step 1.	$(259.965)^{A} - (258.877)^{B} = 1.088$	Calculation for the change in CPI from August 31, 2019 to August 31, 2020. These figures reflect the average CPI for the 12-month period ending August 31.	
Step 2.	1.088 / 258.877 = .0042 x 100 = .42% COLA	Taking the figure from step 1, divide it by the CPI from the earlier year. Multiply by 100 to calculate percentage change and arrive at COLA.	
	Applying COLA to Benefits		
Step 3. (1.	0042) x (Monthly Benefit Payment) = Adjusted Benefit Payment	Taking the COLA as a decimal, add a 1 to represent your current monthly payment. Multiply by monthly payment to arrive at adjusted payment.	
	i = 12 Month Average CPI Ending August 31, 2020 = 12 Month Average CPI Ending August 31, 2019	Data derived from Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (CPI-U) for the PA, NJ, DE, & MD areas.	

History of Investment Returns

As of December 31, 2020, market value of the investment portfolio was \$391,711,239. In 2020 the portfolio experienced a net investment gain of \$29,181,015. In 2020, the COVID-19 pandemic had a major impact on the economy and investments. Real GDP declined 33% in Q2 and the Fund saw negative returns for the first half of 2020. The economy rebounded in the second half of 2020 that resulted in positive returns to the Fund for the year. The Federal Reserve continued to monitor its monetary policy against the uncertainty of the pandemic during 2020. Economic activity remained steady, but sluggish, for the remainder of 2020.

Despite the effects of the pandemic, the investment portfolio had a 10.7% return for the year. Throughout the past 10 years, from 2011 to 2020, the plan averaged a market value rate of return of 8.9%. From 2016 to 2020, a span of 5 years, the average rate of return was 9.6%. Within the past 3 years, the plan realized an average rate of return of 8.3%.



Schedule of Investment Returns

For the year ending December 31, 2020, the County's Fund had an investment gain of \$38,384,986. This compares to a 2019 investment gain of \$58,667,356.



Schedule of Investment Related Expenses

Investment related expenses include fees paid to Investment Managers, the Fund Custodian, and various consulting fees. For the year ending December 31, 2020, the County's "out of pocket" investment expenses were \$635,965.



Statement of Plan Assets

December 31, 2020

Assets	2020 Totals
Cash and Cash Equivalents	\$ 4,581,607
Investment by Fair Value Level:	
U.S. Government Securities	11,157,115
Corporate Bonds	10,814,819
Bond Mutual Funds	17,617,896
Equity Funds	260,089,362
Savings, CD's, and Time Deposit	750,454
Investments Measured at the Net Asset Level:	
Limited Partnership	15,851,663
CCA Life Settlements II Fund	27,832,423
Hancock Timberland and Farmland Fund LP	6,565,517
IFM Global Infrastructure LP Class A Interests	10,903,410
JPNCB Strategic Property Fund	25,589,597
Total Investment	387,172,256
Interest and Dividend Receivable	97,733
Employee Contribution Receivable	1,036
Benefits Payable	(141,393)
Total Assets as of December 31, 2020	\$ 391,711,239

County's Net Pension Liability



Statement of Changes in Fiduciary Net Position

County of Dauphin, Pennsylvania Year Ended December 31, 2020

Additions:	
Contributions:	
County	\$ 7,670,585
Plan Members	5,235,090
Total Contributions	 12,905,675
Investment Income:	
Net Gain in Fair Value of Investments	\$ 34,888,745
Interest	624,756
Dividends	2,779,412
Net Accrued Interest/ Other	92,073
Total Investment Income	 38,384,986
Less: Investment Expense	635,965
Net Investment Income	 37,749,021
Total Additions	 50,654,696
Deductions:	
Pension Benefits	\$ 20,398,630
Refunds of Member Contributions	842,886
Administrative Expenses	232,165
Total Deductions	21,473,681
Increase in Net Position	 29,181,015
Net Assets Held In Trust For Pension Benefits:	
Beginning of Year	\$ 362,530,224
End of Year	\$ 391,711,239

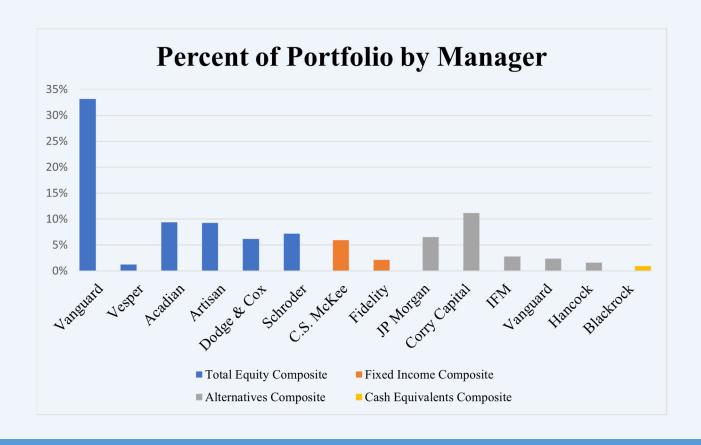
Dauphin County Pension Plan Portfolio

Asset Allocation by Percentage

As of December 2020

Asset Allocation Type	Percentage Allocated
U.S. Equity	34.5
Global Equity	32.1
Life Settlement	11.2
U.S. Fixed Income	10.5
Real Estate	6.5
Infrastructure	2.8
Timberland/Farmland	1.6
Cash Equivalent	0.9

The primary principle behind portfolio allocation is to minimize risk and maximize returns. Risk is broadly defined as the chance that the return on an investment will differ from the expected rate of return. In this case, risk accounts for the variance of expected contributions, volatility of investments, and the standard deviation of plan returns. The plan's current allocation of assets is mostly a factor of meeting the assumed rate of return and doing so at the lowest level of risk.



Pension Plan Management Structure

Board of Trustees

County Commissioners, Controller, & Treasurer

Wilmington Trust

Custodian of Pension Fund

Marquette Associates

Advisor of Pension Fund

Korn Ferry

Actuary of Pension Fund

Dodge & Cox

Investment Manager

Acadian Asset Management

Investment Manager

Artisan Finance

Investment Manager

Vanguard Group

Investment Manager

Schroder Investment
Partners

Investment Manager

IFM Global

Investment Manager

C.S McKee

Investment Manager

<u>Fidelity</u>

Investment Manager

JP Morgan

Investment Manager

Corry Capital
Advisors

Investment Manager



2020 Dauphin County Retirees

Mary Baratucci David Hoover Harold Schriever, Jr. Keith Biter Anna Horst James Shade, Jr. **Dennis Kent David Bitting** Michael Sheaffer Diane Bowen Paul Kreiser, Jr. Paul Shearer Christine Campbell Jamie Lester Shirley Shumaker Jeffery Cepietz Wayne Lutz Wendi Simonetti Mark Mattern Genevieve Chirdon Susan Sipos Radames Cintron Sean McCormack **Gregory Smithers** Stephen Connaghan Greg Mendenhall Jerome Solomon **Douglass Curtin** Joanne Metzger John Sponeybarger Danita Davis Karla Miller Kevin Straub Diane Ensor Lawrence Moore **Becky Witmer** Elba Figueroa Shelby Nestler John Wright Tim Good Charles Painter, Jr. Ronald Gumby, Jr. Cheryl Pfingstl Anne Hawk John Racilla Valerie Henkel Danielle Reed Michael Higgins Pamela Rigby Elizabeth Hinkle James Robinson

Thank you for your service!

Gregory Schneider

Keith Hoffman



The information contained within this report was compiled from the Dauphin County Employees' Retirement System Quarterly Performance Reports produced by Marquette Associates, Dauphin County Retirement Trust Fund reports produced by Zelenkofske Axelrod LLC, and Actuarial Valuation reports produced by Korn Ferry.

DISCLAIMER: The sources of information used in this report are believed to be reliable. Dauphin County has not independently verified all of the information and its accuracy cannot be guaranteed. Opinions, estimates, projections and comments constitute our judgement and are subject to change without notice. References to specific securities are for illustrative purposes only and do not constitute recommendations. Past Performance does not guarantee future results.