

**Howard County Police and Fire  
Employees' Retirement Plan**

**Financial Statements  
(With Supplementary Information)  
and Independent Auditor's Report**

**June 30, 2016 and 2015**

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# Howard County Police and Fire Employees' Retirement Plan

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## Independent Auditor's Report

To the Retirement Plan Committee  
Howard County Police and Fire Employees' Retirement Plan

### Report on the Financial Statements

We have audited the accompanying financial statements of Howard County Police and Fire Employees' Retirement Plan, which comprise the statements of fiduciary net position as of June 30, 2016 and 2015, and the related statements of changes in fiduciary net position for the years then ended, and the related notes to the financial statements.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditor's Responsibility*

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Plan's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### *Opinion*

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Howard County Police and Fire Employees' Retirement Plan as of June 30, 2016 and 2015, and the changes in its fiduciary net position for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

*Emphasis of Matter*

As discussed in Note 2 to the financial statements, the Plan adopted GASB Statement No. 72, "Fair Value Measurement and Application" and GASB Statement No. 82, "Pension Issues" as of the fiscal year ended June 30, 2016. The related financial reporting requirements have been applied to the accompanying financial statements and required supplementary information. Our opinion is not modified with respect to this matter.

Required Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the financial statements as a whole. The supplementary schedules as of June 30, 2016, listed in the foregoing index, together referred to as "required supplementary information," are presented for the purpose of additional analysis and are not a required part of the financial statements but are supplementary information required by the Governmental Accounting Standards Board. Such information is the responsibility of the Plan's management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the financial statements, and, accordingly, we do not express an opinion or provide any assurance on it.

A handwritten signature in black ink that reads "Cohn Reznick LLP". The signature is written in a cursive, flowing style.

Baltimore, Maryland  
November 23, 2016

**Howard County Police and Fire Employees' Retirement Plan**

**Statements of Fiduciary Net Position  
June 30, 2016 and 2015**

	<u>2016</u>	<u>2015</u>
<u>Assets</u>		
Receivables		
Employer contributions	\$ 1,103,819	\$ 947,959
Member contributions	357,493	307,431
Interest and dividends	570,535	585,750
Due from sale of investments	253,635	505,351
Other	<u>7,022</u>	<u>2,671</u>
Total receivables	<u>2,292,504</u>	<u>2,349,162</u>
Investments, at fair value		
Equities	187,843,351	199,841,801
Alternative investments	98,781,475	84,430,015
Money market funds	7,314,477	6,530,232
Fixed income	132,985,222	119,966,938
Real assets	<u>21,724,979</u>	<u>19,595,234</u>
Total investments	<u>448,649,504</u>	<u>430,364,220</u>
Prepaid insurance	<u>24,124</u>	<u>22,543</u>
Total assets	<u>450,966,132</u>	<u>432,735,925</u>
<u>Liabilities</u>		
Investments purchased	1,705,257	300,222
Accounts payable	<u>312,246</u>	<u>406,679</u>
Total liabilities	<u>2,017,503</u>	<u>706,901</u>
Net position held in trust for pension benefits	<u>\$ 448,948,629</u>	<u>\$ 432,029,024</u>

See Notes to Financial Statements.

**Howard County Police and Fire Employees' Retirement Plan**

**Statements of Changes in Fiduciary Net Position  
Years Ended June 30, 2016 and 2015**

	<u>2016</u>	<u>2015</u>
Additions		
Contributions		
Employer	\$ 21,636,281	\$ 22,530,039
Member	<u>7,040,881</u>	<u>7,006,494</u>
Total contributions	<u>28,677,162</u>	<u>29,536,533</u>
Investment income		
Net (depreciation) appreciation in fair value of investments	(3,073,955)	1,461,885
Interest	2,515,056	2,677,543
Dividends	8,304,546	8,741,993
Other, net	<u>51,441</u>	<u>27,600</u>
Total investment income	7,797,088	12,909,021
Less investment expense	<u>1,338,181</u>	<u>1,378,144</u>
Net investment income	<u>6,458,907</u>	<u>11,530,877</u>
Total additions	<u>35,136,069</u>	<u>41,067,410</u>
Deductions		
Benefit payments		
Annuities	17,741,674	18,706,012
Death	-	123,009
Refunds of contributions	<u>147,957</u>	<u>111,682</u>
Total benefits	17,889,631	18,940,703
Administration expenses	<u>326,833</u>	<u>368,299</u>
Total deductions	<u>18,216,464</u>	<u>19,309,002</u>
Net change	16,919,605	21,758,408
Net position held in trust for pension benefits		
Beginning of year	<u>432,029,024</u>	<u>410,270,616</u>
End of year	<u>\$ 448,948,629</u>	<u>\$ 432,029,024</u>

See Notes to Financial Statements.

# Howard County Police and Fire Employees' Retirement Plan

## Notes to Financial Statements June 30, 2016 and 2015

### Note 1 - Plan description

#### Plan administration

The Howard County Police and Fire Employees' Retirement Plan (the "Plan") is a single-employer defined benefit public employee retirement system established and administered by Howard County (the "County"), Maryland, to provide defined pension benefits for career firefighters and sworn police officers. The Plan is considered part of the County's financial reporting entity and is included in the County's financial statements as a pension trust fund. The accompanying financial statements present only the operations of the Plan and are not intended to present the financial position and results of operations of the County.

#### Plan membership

At July 1, 2015 and 2014, the Plan's membership consisted of the following:

	<u>2015</u>	<u>2014</u>
Active	882	882
Retired and beneficiaries	304	286
Disabled	31	27
Terminated vested	<u>18</u>	<u>20</u>
	<u>1,235</u>	<u>1,215</u>

The Plan was established, is operated, and may be amended under the provisions of Sections 1.400 and 1.401A to 1.478A of the Howard County Code. All of the County's full-time career firefighters and sworn police officers are eligible to participate in the Plan. The Retirement Plan Committee established by Howard County Code Section 1.455A has full power and authority to administer and operate the Plan in accordance with its terms and in particular the authority contained in subsection 1.454(a). The Pension Oversight Commission established by Howard County Section 1.482 provides ongoing assessment and evaluation of the Plan's operations.

#### Benefits provided

All of the County's full-time career police and fire officers hired on or after July 1, 1990 must enroll in the Police and Fire Plan. The Plan provides retirement benefits as well as death and disability benefits and cost-of-living adjustments.

Participants become vested after 5 years of eligibility service and are entitled to a benefit beginning at age 62. Terminated vested employees with less than 20 years of service will receive a benefit equal to 2.5% of average compensation times the number of years of creditable service, payable at age 62. If an employee leaves employment or dies before 5 years of eligibility service, accumulated employee contributions plus interest are refunded to the employee or the designated beneficiary. A participant who becomes totally and permanently disabled may retire prior to normal retirement and receive a benefit. Both disability and death benefits vary if incurred in the line of duty.

Employees who attain the age of 62 with at least 5 years of eligibility service and employees who have completed 20 years of eligibility service, if at least 10 years were served as a covered employee, are entitled to a normal retirement benefit. The amount will vary, based on the number of years of creditable service, from 50% (with 20 years of service) to 80% (with 30 years of service) of average compensation for police; and from 50% (with 20 years of service) to 70% (with 30 years of service) of average compensation for firefighters.

## Howard County Police and Fire Employees' Retirement Plan

### Notes to Financial Statements June 30, 2016 and 2015

Annually, the benefits are adjusted for cost-of-living adjustment ("COLA"). The Plan uses the Consumer Price Index ("CPI-U") for the Washington/Baltimore area as published by the Bureau of Labor Statistics to calculate the change in retiree allowances each July. Maximum annual COLA is 2%.

#### **Contributions**

The Plan is authorized to establish or amend the obligations to make contributions under the provisions of the Howard County Code, Sections 1.423A and 1.465A. The Plan's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate sufficient assets to pay benefits when due. Participant contributions are 11.6% of base pay for participating Police Department Employees and 7.7% of base pay for participating Fire Department Employees. The County funds the remainder of the cost of employees' participation in the Plan, which was 30% and 32% of covered payroll in fiscal years 2016 and 2015, respectively. The County contribution to the Plan is determined through an actuarial valuation performed by Bolton Partners, Inc. for each fiscal year. Expenses incurred in the administration and operation of the Plan are funded by the Plan.

#### **Note 2 - Summary of significant accounting policies and plan asset matters**

##### **Method used to value investments**

The Plan's investments are reported at fair market value. Short-term investments consisting of money market funds are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at either the last reported sales price, evaluated bid, broker quoted, or pool-specific pricing. The fair value of real estate investments is approximated by the net asset value of the Plan's share of ownership of the co-mingled real estate investment funds. Fair value of other securities is determined by the mean of the most recent bid and asked prices as obtained from dealers that make markets in such securities.

##### **Basis of accounting**

The Plan's financial statements are prepared using the accrual basis of accounting. Employer and employee contributions are recognized as revenue in the period in which employee services are performed and expenses and refunds are recorded when the corresponding liabilities are incurred, regardless of when payment is made. Benefits are recorded when the payments are made.

##### **Use of estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates that affect the reported amounts in the financial statements and accompanying notes. Actual results could differ from those estimates.

##### **Income taxes**

The Internal Revenue Service issued a determination letter on June 27, 2012, which stated that the Plan and its underlying trust qualify under the applicable provisions of the Internal Revenue Code and therefore are exempt from Federal income taxes. Although the Plan has been amended since receiving the determination letter, in the opinion of the Plan administrator, the Plan and its underlying trust are designed and are being operated in compliance with the applicable provisions of the Internal Revenue Code; therefore, the Plan is qualified and the related trust is tax exempt.



# Howard County Police and Fire Employees' Retirement Plan

## Notes to Financial Statements June 30, 2016 and 2015

### Recently issued accounting pronouncements

In February 2015, the GASB issued Statement No. 72, "Fair Value Measurement and Application" ("GASB No. 72") to improve financial reporting issues related to fair value. This statement establishes general principles for measuring fair value and standards of accounting and reporting for asset and liabilities measured at fair value, requires disclosures to be made about fair value measurements, the level of fair value hierarchy, and valuation techniques. It also requires additional disclosures regarding investments in certain entities that calculate net asset value per share (or its equivalent). The requirements of this Statement are effective for financial statements for periods beginning after June 15, 2015. The Plan adopted GASB No. 72 as of fiscal year ended June 30, 2016 and has applied the related changes to the accompanying financial statements.

In March 2016, the GASB issued Statement No. 82, "Pension Issues" ("GASB No. 82"). This statement amends Statements 67 and 68 to require the presentation of covered payroll (the payroll or compensation paid to all employees on which contributions to the pension plan are based), and the related ratios, in the required supplementary information. Previously, Statements 67 and 68 required presentation of covered-employee payroll (the payroll of employees that are provided with pensions through the pension plan), and the related ratios, in the required supplementary information. The requirements of this Statement are effective for financial statements for periods beginning after June 15, 2016, with early adoption permitted. The Plan elected to early adopt GASB No. 82 during fiscal year ended June 30, 2016 and has retroactively applied the related changes to the accompanying required supplementary information by restating the required supplementary information to reflect covered payroll instead of covered-employee payroll for all periods presented.

### Subsequent events

Material subsequent events have been considered for disclosure and recognition in these financial statements through November 23, 2016 (the date the financial statements were available to be issued).

### Note 3 - Investments

#### Investment policy

The Plan's policy in regard to the allocation of invested assets is established and administered by the Retirement Plan Committee. Specific investment goals stated in the policy shall be reviewed at least annually and, when appropriate, new goals and standards shall be adopted by the Retirement Plan Committee. The policy is expected to provide diversification of assets in an effort to maximize investment return to the Plan consistent with prudent market and economic risk. All of the Plan's assets are to remain invested at all times in the asset classes as designated by the policy. The following strategic asset allocation policy was adopted by the Plan on March 21, 2002, last amended on February 26, 2015 and remained in effect as of June 30, 2016:

<u>Asset class</u>	<u>Target allocation</u>
Equities	40.0%
Alternative investments	22.5%
Fixed income	30.0%
Real assets	<u>7.5%</u>
Total	<u><u>100.0%</u></u>

## Howard County Police and Fire Employees' Retirement Plan

### Notes to Financial Statements June 30, 2016 and 2015

#### **Concentrations**

The Plan held investments in the following organizations that represent 5% or more of the pension plan's fiduciary net position: Blackstone (6%), Colchester (5%), Dimensional (6%), Dodge and Cox (14%), Invesco (6%), LSV (6%), Magnitude (6%), PIMCO (9%), Fidelity (7%) and Westfield (6%).

#### **Concentration of credit risk**

The Plan's investment policy does not establish any limitation on the percentage that the Plan may have with any one issuer, other than to state that the Plan's assets are to be diversified in accordance with Modern Portfolio Theory. At June 30, 2016, the Plan had 7% of its investments in corporate bonds.

#### **Rate of return**

For the fiscal year ended June 30, 2016, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 1.38%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amount actually invested.

#### **Investments purchased and due from sales of investments**

Investment transactions are recorded on a trade plus three days or less timetable resulting in an amount due to and due from State Street Bank (the "Plan's Trustee") at year end.

#### **Risks and uncertainties**

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statements of fiduciary net position.

## Howard County Police and Fire Employees' Retirement Plan

### Notes to Financial Statements June 30, 2016 and 2015

#### Note 4 - Fair value measurement

The Plan categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. It has the following recurring fair value measurements as of June 30, 2016:

	June 30, 2016	Fair value measurement using:		
		Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
<b>Investments by fair value level:</b>				
Debt securities				
Collateralized Mortgage Obligations (Fannie Mae and Freddie Mac)	\$ 2,641,017	\$ -	\$ 2,641,017	\$ -
Corporate bonds	29,679,400	-	29,679,400	-
Credit card receivables	324,311	-	324,311	-
Commingled funds (fixed income)	39,263,469	-	39,263,469	-
FHLMC and FNMA bonds	17,609,948	-	17,609,948	-
U.S. Treasury securities	6,618,311	6,618,311	-	-
Municipal bonds	1,714,518	-	1,714,518	-
Preferred stock	685,326	685,326	-	-
Treasury Inflation Protected securities	11,747,232	-	11,747,232	-
	<u>110,283,532</u>	<u>7,303,637</u>	<u>102,979,895</u>	<u>-</u>
Total debt securities				
Equity securities				
Common stocks	94,378,182	94,378,182	-	-
Depository receipts	691,217	691,217	-	-
Small Company portfolio	11,235,044	11,235,044	-	-
Emerging Markets Value portfolio	26,406,310	26,406,310	-	-
Real Estate Investment Trusts ("REITS")	2,077,555	2,077,555	-	-
	<u>134,788,308</u>	<u>134,788,308</u>	<u>-</u>	<u>-</u>
Total equity securities				
	<u>245,071,840</u>	<u>142,091,945</u>	<u>102,979,895</u>	<u>-</u>
<b>Total investment by fair value level</b>				
<b>Investments measured at the net asset value ("NAV"):</b>				
Private equity funds	67,611,300			
Equity hedge funds	53,871,865			
Real assets funds	21,724,979			
International equity funds	20,339,047			
Commingled funds	32,715,996			
	<u>196,263,187</u>			
<b>Total investments measured at the NAV</b>				
	<u>\$ 441,335,027</u>			
<b>Total investments measured at fair value*</b>				

\* Does not include money market funds totaling \$7,314,477, which represents securities that have remaining maturities of less than 1 year and may be measured at amortized cost.

Debt and equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Debt securities classified in Level 2 of the fair value hierarchy refers to securities not traded on an active market but for which observable market inputs are readily available. Fixed income securities are priced on a daily basis, market to market, using third party pricing sources.

## Howard County Police and Fire Employees' Retirement Plan

### Notes to Financial Statements June 30, 2016 and 2015

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) is presented on the following table:

	Fair value	Unfunded commitments	Redemption frequency (if currently eligible)	Redemption notice period
Private equity funds	\$ 67,611,300	\$ 38,331,356		
Equity hedge fund 1	26,979,722		Quarterly	65 days
Equity hedge fund 2	26,892,143		Semi Annually	95 days
Real assets funds	21,724,979	15,204,350		
International equity funds	20,339,047		Monthly	15 days
Commingled funds	32,715,996		Daily	5 days
	<u>\$ 196,263,187</u>			

1. Private Equity Funds: This represents investments that are entirely through FOF vehicles and will invest in both debt and equity strategies. Exposures are diversified by manager, region, strategy and vintage year. Managers retained will pursue distressed debt, venture, or buyout strategies. This type will also include investment in the private equity secondary market. The FOF investments will have 10 - 40 underlying managers/funds building broad exposures for diversified performance. These funds have liquidity restrictions for the life of the investment, 7 - 10 years. Options for exit are limited to sale on the secondary market. Capital commitments are made to these types of investments and funds are invested through a call down structure.
2. Equity Hedge Funds: This represents investments in two Hedge Fund of Funds ("FOF") managers. Each FOF manager invests in underlying hedge funds to provide a broadly diversified portfolio. One invests with 90 - 100 underlying managers/funds to execute its global market strategy. The other invests in 20 - 40 underlying managers/funds in a relative value mandate. The hedge fund strategy is designed to diversify by manager/fund to reduce single manager/fund risk while offering portfolio diversification and provide a return profile that is uncorrelated to the rest of the assets in the portfolio. The fair values of the investments are determined using the NAV per share (or its equivalent) of the investments. These funds have liquidity restrictions of 3 to 6 months.
3. Real Assets Funds: This represents funds that invest in institutional real estate (office, multi-family, industrial, and retail) and natural resources strategies. The fair values of the investments in these strategies are determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partnership's capital. The real estate strategies deployed include a US focused property strategy (core to core plus) and a global FOF strategy. The global FOF manager will invest in 20 - 30 underlying managers/ funds. The natural resources investments are through FOF strategies. The natural resource managers will invest in 10 - 25 underlying relationships as they build a diversified portfolio with exposure to oil, natural gas, agriculture, timber and other natural resources. Capital commitments are made to these types of investments and funds are invested through a call down structure. These funds have liquidity restrictions for the life of the investment, 7 - 10 years. Options for exit are limited to sale on the secondary market.

## Howard County Police and Fire Employees' Retirement Plan

### Notes to Financial Statements June 30, 2016 and 2015

4. International Equity Funds: This represents investments primarily in value oriented equity securities of international developed markets (non-U.S. issuers; e.g., MSCI EAFE) with the objective of achieving a long-term return above a passive benchmark (EAFE). This manager focuses on a dividend discount model value based philosophy for publicly traded equity. All securities are recorded at fair value. Foreign securities are valued on the basis of quotations from the primary market in which they are traded and translated at each valuation date from the local currency into U.S. dollars using current exchange rates. The Fund may enter into forward foreign currency exchange contracts primarily to hedge against foreign currency exchange rate risks on its non-U.S. dollar-denominated investment securities.
5. Commingled Funds: This represents investments primarily in growth oriented equity securities of international developed markets (non-U.S. issuers; e.g., MSCI EAFE). The objective of this fund is to achieve long-term growth of capital and a return above a passive benchmark (EAFE) by identifying publically traded equities with strong growth prospects. NAVs are normally calculated as of 4:00pm Eastern Time for each business day the relevant exchange (usually the NYSE) is open. Securities for which market quotations are readily available and reliable are to be valued using the applicable market quotations.

#### Note 5 - Deferred retirement option program

The Plan offers a program called Deferred Retirement Option Plan ("DROP"). This is a voluntary benefit program which offers qualified active Participants, who would be entitled to retire and receive benefits, the option to continue working. An individual DROP account is created and is credited with the monthly retirement benefits that would have been paid during the DROP period had the participant actually retired. The account is also credited with the required employee contributions and interest. The DROP account is paid to the employee, in addition to the benefit payment entitled under the defined benefit plan based on the earlier years of service, when the employee eventually retires. Participating members may elect distribution as one lump sum payment, a rollover or in monthly payments. The balance held by the Plan as of June 30, 2016 was \$10,463,431.

#### Note 6 - Net pension liability of the County

The components of the net pension liability of the County at June 30, 2016 were as follows:

Total pension liability	\$ 589,225,747
Plan fiduciary net position	<u>448,948,629</u>
County's net pension liability	<u>\$ 140,277,118</u>
Plan fiduciary net position as a percentage of the total pension liability	76.19%

## Howard County Police and Fire Employees' Retirement Plan

### Notes to Financial Statements June 30, 2016 and 2015

#### Actuarial assumptions

The total pension liability in the July 1, 2015 actuarial valuation rolled forward to June 30, 2016 was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75%
Salary increases	Varies by service, 4.25% to 7.55%, including inflation
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Mortality	RP-2000 Combined Healthy tables with generational projection by Scale AA

The actuarial assumptions used in this valuation, for GASB 67 purposes, were generally based on the 2014 Experience Study covering the period from July 1, 2009 through June 30, 2013. Economic assumptions and the demographic assumptions were updated to reflect the 2009 - 2013 experience study.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class, included in the Plan's target allocation as of June 30, 2016 (see Note 3), are summarized in the following table:

<u>Asset class</u>	<u>Long-term expected real rate of return</u>
Equities	4.99%
Alternative investments	5.17%
Fixed income	2.04%
Real assets	5.17%

#### Discount rate

The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate and that the County contributions will be made at rates equal to the difference between total actuarially determined contribution rates and the employee rate. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The discount rate was reduced from 7.75% to 7.50% for fiscal year ended June 30, 2015.

**Howard County Police and Fire Employees' Retirement Plan**

**Notes to Financial Statements  
June 30, 2016 and 2015**

**Sensitivity of the net pension liability to changes in the discount rate**

The following presents the net pension liability of the County, calculated using the discount rate of 7.50%, as well as what the County's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.50%) or 1 percentage point higher (8.50%) than the current rate:

	1% decrease (6.50%)	Current discount rate (7.50%)	1% increase (8.50%)
County's net pension liability	<u>\$ 225,539,351</u>	<u>\$ 140,277,118</u>	<u>\$ 70,281,424</u>

**Required Supplementary Information**



## Howard County Police and Fire Employees' Retirement Plan

### Required Supplementary Information

#### Schedule of Changes in the County's Net Pension Liability and Related Ratios (Dollar Amounts in Thousands) Last 10 Fiscal Years

	FY 2016	FY 2015	FY 2014*
<b>Total pension liability</b>			
Service cost	\$ 18,974	\$ 17,708	\$ 17,535
Interest	39,998	36,208	33,630
Change of benefit terms	(1,705)	-	-
Difference between expected and actual experience	7,599	(1,596)	-
Changes of assumptions	-	16,621	14,989
Benefit payments - including refunds of member contributions	(17,890)	(18,941)	(15,679)
<b>Net change in total pension liability</b>	46,976	50,000	50,475
<b>Total pension liability - beginning</b>	542,250	492,250	441,775
<b>Total pension liability - ending</b>	<u>\$ 589,226</u>	<u>\$ 542,250</u>	<u>\$ 492,250</u>
<b>Plan fiduciary net position</b>			
Contributions - employer	\$ 21,636	\$ 22,530	\$ 20,822
Contributions - member	7,041	7,006	6,526
Net investment income	6,460	11,531	54,733
Benefit payments - including refunds of member contributions	(17,890)	(18,941)	(15,680)
Administrative expenses	(327)	(368)	(270)
Other	-	-	-
<b>Net change in plan fiduciary net position</b>	16,920	21,758	66,131
<b>Plan fiduciary net position - beginning</b>	432,029	410,271	344,140
<b>Plan fiduciary net position - ending</b>	<u>\$ 448,949</u>	<u>\$ 432,029</u>	<u>\$ 410,271</u>
<b>County's net pension liability - ending</b>	<u>\$ 140,277</u>	<u>\$ 110,221</u>	<u>\$ 81,979</u>
<b>Plan fiduciary net position as a percentage of the total pension liability</b>	76.19%	79.67%	83.35%
<b>Total covered payroll<sup>1</sup></b>	\$ 72,121	\$ 70,406	\$ 67,169
<b>County's net pension liability as a percentage of covered payroll</b>	194.50%	156.55%	122.05%
<b>Expected average remaining service years of all participants</b>	10	10	9

\* Information for FY 2013 and earlier is not available

<sup>1</sup> In accordance with GASB No. 82, amounts shown reflect pensionable earnings only

**Notes to Schedule:**

*Benefit Changes:* Effective January 1, 2015, DROP I is closed to new entrants and DROP II is open to all plan members who meet the eligibility requirements. DROP I members may elect to transfer to DROP II.

See Independent Auditor's Report.

## Howard County Police and Fire Employees' Retirement Plan

### Required Supplementary Information

#### Schedule of County Contributions (Dollar Amounts in Thousands) Last 10 Fiscal Years

	FY 2016	FY 2015	FY 2014*
Actuarially determined contribution	\$ 21,636	\$ 22,530	\$ 20,822
Contributions in relation to the actuarially determined contribution	21,636	22,530	20,822
Contribution deficiency (excess)	\$ -	\$ -	\$ -
Covered payroll <sup>1</sup>	\$ 72,121	\$ 70,406	\$ 67,169
Contributions as a percentage of covered payroll <sup>1</sup>	30.00%	32.00%	31.00%

\* Information for FY 2013 and earlier is not available

<sup>1</sup>In accordance with GASB No. 82, amounts shown reflect pensionable earnings only.

#### Notes to Schedule

Valuation Date:

The actuarial valuation date is the beginning of the fiscal year (July 1, 2015).

Methods and assumptions used to determine contribution rates for fiscal year 2016:

Actuarial cost method	Projected Unit Credit (Entry Age used for GASB 67 purposes)
Amortization method	Level percent of pay increasing 2.75% per year
Remaining amortization period	From 8 to 19 years
Asset valuation method	5-year smoothed market
Inflation	2.75%
Salary increases	Varies by service. 4.25% to 7.55%, including inflation
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Retirement age	Rates vary by participant age and service (for GASB purposes only) set at 100% DROP entry (or expected entry). Normal Cost (for GASB 67 purposes) ceases for Police & Fire members when they enter DROP since GASB 67 does not allow Normal Cost while in DROP.
Mortality	RP-2000 Combined Healthy tables with generational projection by Scale AA
Cost of Living Adjustment	2.0%

See Independent Auditor's Report.

**Howard County Police and Fire Employees' Retirement Plan**

**Required Supplementary Information**

**Schedule of Investment Returns  
Last 10 Fiscal Years**

<u>Fiscal Year Ended</u>	<u>Annual money-weighted rate of return, net of investment expenses</u>
June 30, 2016	1.38%
June 30, 2015	2.95%
June 30, 2014	15.62%
June 30, 2013	11.33%
June 30, 2012	-1.21%
June 30, 2011	20.56%
June 30, 2010	15.42%
June 30, 2009	-16.21%
June 30, 2008	-14.44%
June 30, 2007	17.62%

See Independent Auditor's Report.

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