



# 2014 PENNSYLVANIA COUNTY PENSION PLAN REPORT

Prepared for

## SCHUYKILL COUNTY



**PEIRCE PARK GROUP**  
INVESTMENT MANAGEMENT CONSULTANTS

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## INTRODUCTORY NOTES

Information in this report is based on each participating county's actuarial report. To ensure an "apples to apples" comparison across counties Peirce Park Group has made a limited number of adjustments to the data. Wherever these adjustments have been made, you will find a notation explaining what was adjusted and why.

One important additional note... investment returns as shown in the report are reported on a **gross return** basis (before investment management fees are deducted.)

However, for those plans with a significant *percentage of assets in mutual funds*, the investment returns your actuary would use in your report would already have the mutual fund investment fees deducted. Therefore, your total portfolio investment return would deviate somewhat from the gross return basis, and your "ranking" is somewhat disadvantaged in comparison to a county with a portfolio without any mutual funds.

For example, if you have a separately managed portfolio with a 10% return, but have a ½ percentage point in investment management fees, your return would show as 10% in this report. If your funds were totally invested in mutual funds, the investment management fees are already deducted from the investment return, and, for example, you may show a return of 9.7%. This would make it appear that you had a lower return than the separately managed portfolio, but in fact, once investment management fees are deducted from the separately managed portfolio return (10% - 0.5% = 9.5%) the investment return of the portfolio with mutual funds would be 9.7%, and would be the higher net return.

*ALL of the information in this report needs to be considered in the context of your county's unique situation. Please use the information as a tool to assist you in continuing assessment of your plan management, not as an absolute assessment of how "well" you are doing.*

## THE 2014 PENNSYLVANIA COUNTY PENSION PLAN REPORT

Peirce Park Group is pleased to provide you with the 2014 edition of the Pennsylvania County Pension Plan report.

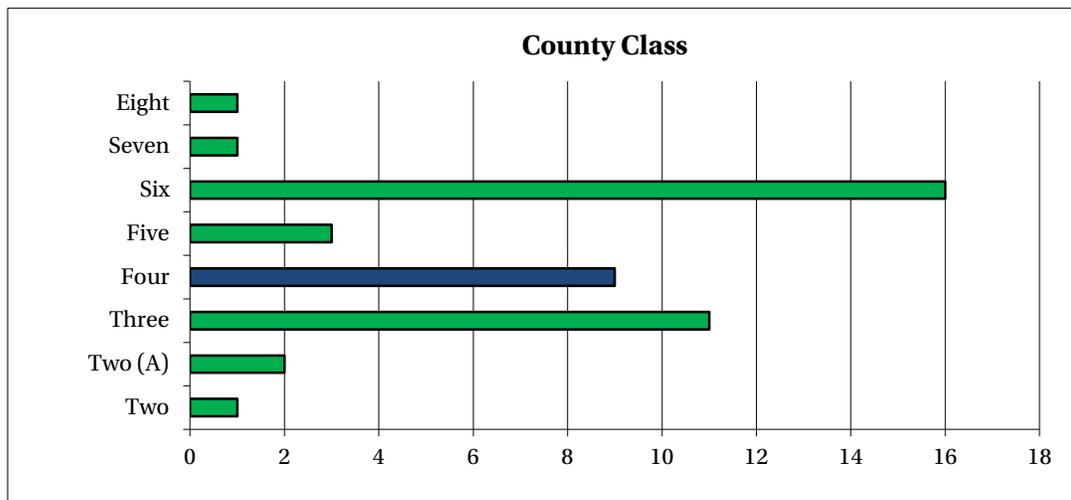
The Pennsylvania County Pension Plan Report provides an opportunity to compare certain aspects of your pension plan and fund in relation to those of other Pennsylvania counties. It also provides education to assist you in understanding your fiduciary role and the various components of the pension plan system.

Even though your county may have much in common with your Pennsylvania colleagues, there are likely some differences as well. In evaluating your pension plan and fund, you should consider:

- The economic environment in which you operate
- The current funded level of your plan
- Trends in Annual Required Contribution (ARC) payments
- Whether your contributions are covering your benefit payments (positive cash flow)
- The actuarial assumptions you use including:
  - Assumed Rate of Return
  - Salary Increases
  - Crediting rate
- Funding Method
- Asset Valuation Method

All of these factors, and others, may lead you to make different decisions and use different approaches than those used by peer counties. So, while the information included in this report can be helpful in getting a sense of what other counties are doing, keep in mind that your situation is unique.

This year's report is based on information provided by 44 participating counties. The chart below shows the number of participants from each County Class (based on population size).



*In the report graphs, data related to your county is represented by the blue bar.*

## OVERVIEW OF THE PENNSYLVANIA COUNTY PENSION FUNDING SYSTEM

The defined benefit pension funding system is a dynamic one, with a variety of factors affecting monetary inflows and outflows. When plan fiduciaries understand the interplay between financial inflows and outflows, they are able to make better informed decisions with regard to plan and fund management.

In the remainder of this section, we review the key elements of the pension fund.

Pennsylvania county retirement plans are governed by Act 96.

There are two components to the system:

### 1. Traditional Defined Benefit Plan.

Through its **defined benefit plan**, the county promises that a retired employee will receive a specified monthly benefit that is determined through a formula based on the employee's earnings history, length of service and age.

(benefit class) x (years of service) x (final average salary\*)

\*The average of the member's annual compensation received for the three years which produce the highest such average.

Funds to cover these benefits come from county contributions and investment returns. (Figure 1)

**2. Cash Balance Plan**, employee benefits are based on the accumulated value of the member's account.

*Employees contribute* a mandated percentage of their salary to the plan. At the beginning of each year, the county sets an interest rate between 4% and 5.5%, to be credited to each participant's account balance. Any investment return shortfall in comparison to the crediting rate is made up by the county. Any investment return in excess of the crediting rate is applied to subsidize the defined benefit plan contributions and therefore helps to lower the county's ARC. (Figure 2)

Figure 1: Defined Benefit Plan

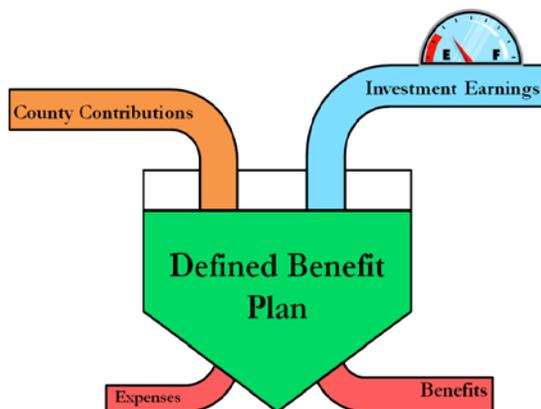
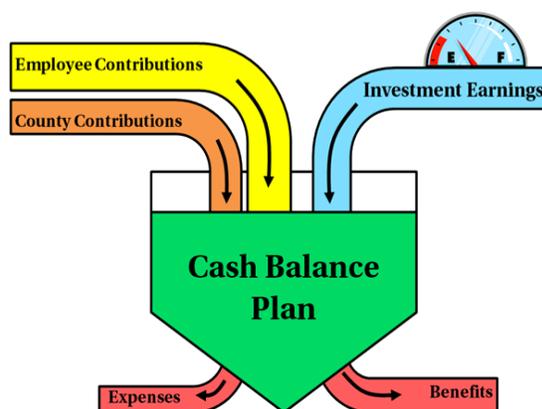


Figure 2: Cash Balance Plan



## Fund Inflows

There are three ways money flows into the “pension bucket” to provide funds to cover your benefit liability. Two of these are *Contributions* -- the county contribution (*Annual Required Contribution or ARC*) and employee contributions (into the cash balance plan). The third source of inflow into the pension fund is through *Investment Earnings* – the return on your investment portfolio.

## Fund Outflows

Money flows out of your fund to pay for retiree *Benefits* and *Fund Expenses*. Examples of fund expenses include fees associated with the fund custodian, actuary, investment managers, and investment consultant.

It is important to have a good understanding of the projected size and timing of benefit payments and fund expenses so that you can be sure adequate cash from your portfolio is available to pay those benefits.

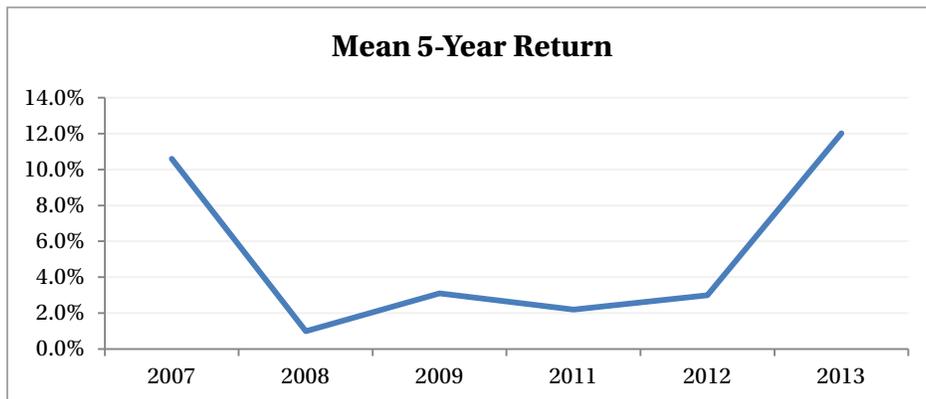
## Investment Performance

On the following pages we provide data on annual investment returns from the past six years, as well as provide a summary of 5-year returns and 10-year returns. This data was taken from the actuarial reports submitted by participant counties. (Please see the note on page 2 of the report regarding the treatment of investment returns for portfolios with mutual funds and those without.)

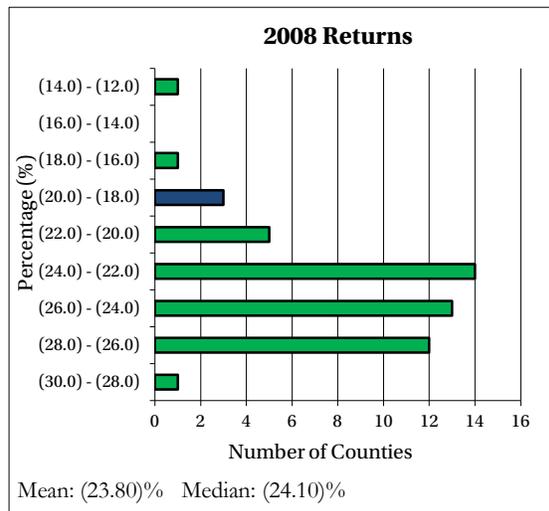
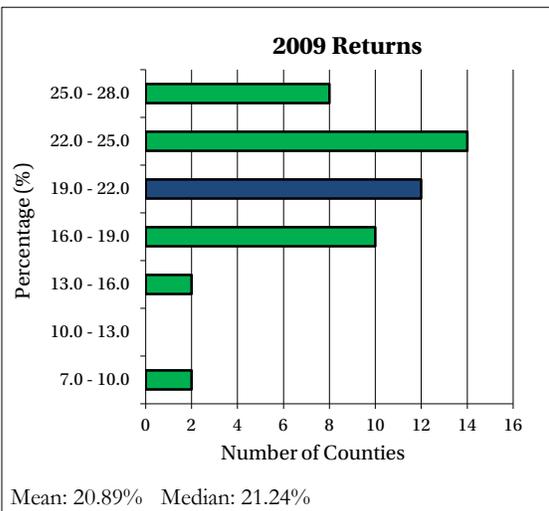
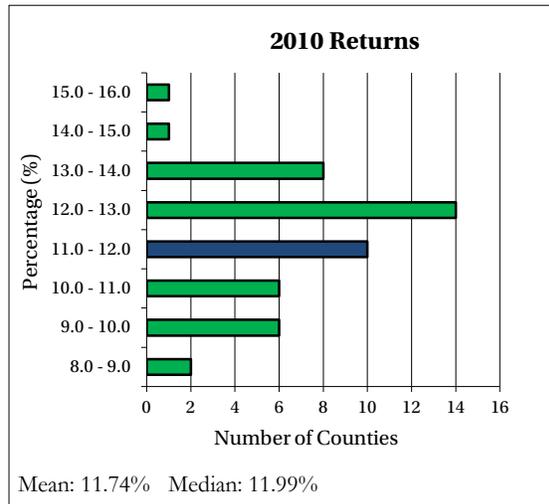
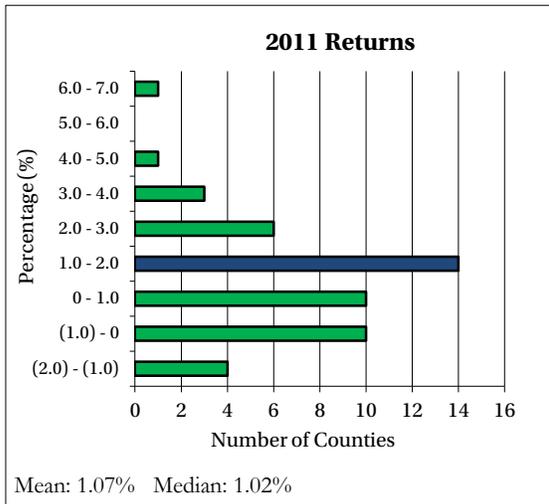
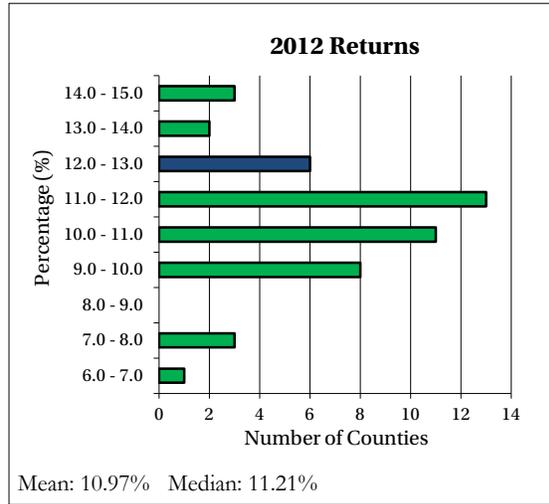
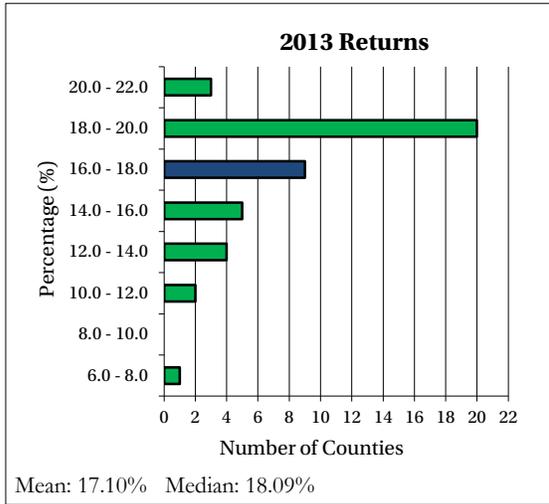
Prior to the credit crisis in 2008, the 2007 average 5-year trailing return for the reporting counties was 10.6%. This return was above the assumed rate of return (ARR) used by most counties (7.5%) and therefore, had a positive effect on the amount of required contribution the counties had to make.

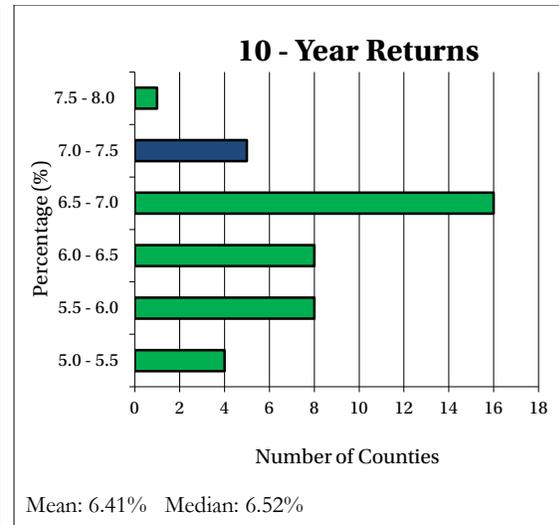
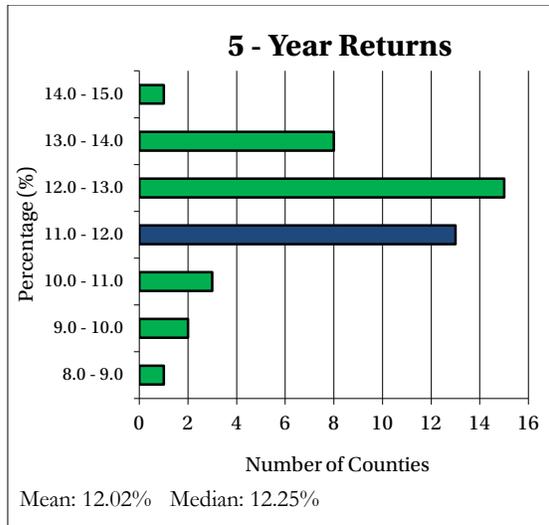
During the credit crisis in 2008, the equity markets collapsed leaving all counties with significant losses. County plans were down on average 23.8% for that year. At the end of 2008, the trailing 5 year return dropped to 1.0%, significantly lower than the ARR.

Over subsequent years, better equity markets have helped the plans recover from their 2008 lows. The average trailing 5 year return of 12.0% for county plans (as of 2013) is significantly above the average ARR. However, the 10 year trailing return now averages 6.4% per year, which is still below the ARR but is getting much closer.



You will notice that several of the year by year charts do not contain data for 2010 as this was a year in which we did not publish a report. However, we have included investment return data for 2010 in this report, as that is included within the submitted actuarial reports.





### Considerations Related to Investment Earnings

Naturally, most people like to see a high investment return. After all, higher investment returns increase assets available to pay benefits and help to minimize the ARC. However, the search for higher returns should be balanced with the amount of risk each Board is willing to take based on the individual county's circumstances and goals.

When assessing your situation, you might want to consider:

- How did your fund perform in different types of market environments?
- Did your portfolio perform as you had hoped in each type of market?
- Were there some elements of your portfolio that did not perform as you expected? Do you understand why that variance occurred?
- How much variability (volatility) was there in your investment returns compared with your peer group?
- What aspects of your portfolio might account for investment return variability?

## Funded Ratio

The ratio of fund assets to projected liabilities is the *Funded Ratio*.

In the pension system diagrams on page 4:

- The green space represents the *Actuarial Value of fund Assets (AVA)*
- The total bucket (green space and white space above it) represents your *Actuarial Accrued Liability (AAL)*
- The white space shows the *Unfunded Actuarial Accrued Liability (UAAL)*

The larger the green area, the more assets are available to pay for benefits.

The Actuarial Value of fund Assets (AVA) can be calculated using several different methods, (See page 13).

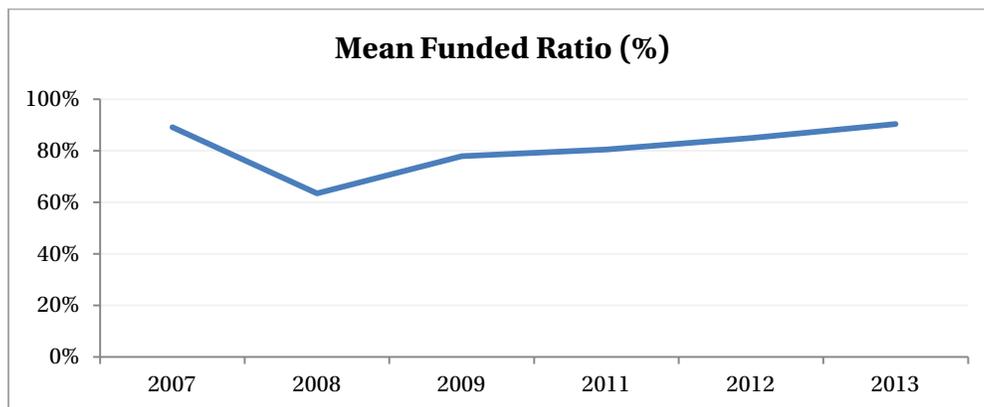
When calculating your *Actuarial Accrued Liability (AAL)* your actuary considers current benefit obligations and projected future salary increases. The size of your liability is determined by factors such as the number of employees, their salaries, projected future salary increases, length of service, employee turnover, mortality rates, benefit class and more.

(Data regarding the actuarial assumptions and methods participant counties are currently using can be found beginning on page 10).

*Funded Ratio* (assets/liabilities) is a key measure for evaluating the health of your pension plan. It shows how much you have in assets now versus how much you expect to need to pay future benefits. A higher funded ratio indicates a healthier plan.

After the market crash in 2008, the average funded ratio of reporting counties fell from 89.2% to 63.5%. Since 2009, strong equity markets have helped counties steadily improve the health of their plans. For the participating counties, the most recent average actuarial funded ratio is 90.4%.

In your actuarial report, your funded ratio is calculated by dividing your actuarial value of assets by your actuarial accrued liability. However, due to the different methods for valuing assets and measuring liabilities, comparing actuarially reported funded ratios is not an apples-to-apples assessment.



## Funded Ratio (Adjusted)

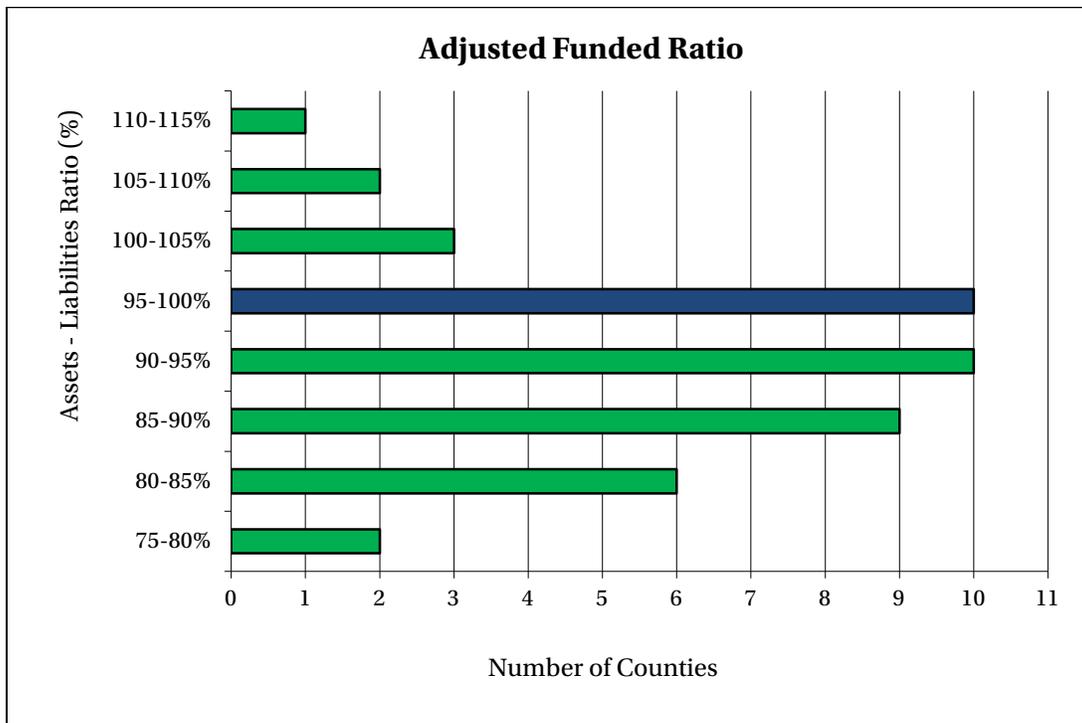
***For a better comparison between counties, we have standardized valuation methods and liability assumptions in this report.***

We use your actual market value of assets for this adjusted funded ratio calculation.

In addition, because liability calculations are affected by assumed future investment return, salary increases and mortality assumptions, we have adjusted each county's liability as if ***all*** counties used the following assumptions:

- 4.5% salary increase
- 7.5% investment return
- RP2013 mortality table

This ratio of assets to liabilities is then reported as your *adjusted* funded ratio, which is a much more accurate comparative measure. The mean adjusted funded ratio in 2013 was 92.5%.



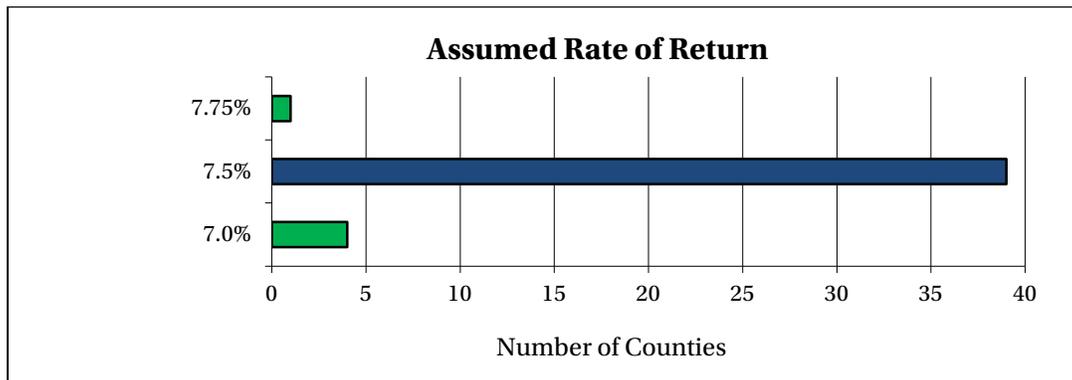
## ACTUARIAL ASSUMPTIONS & METHODS

Administering a pension plan requires looking into the future and making a set of predictions. To do this, plans hire an actuary. The actuary uses a set of actuarial assumptions and chooses from among several calculation methods. These assumptions are either economic (e.g., assumed rate of return, assumed future salary increases) or demographic (e.g., number of employees, length of service, mortality). The methods include how the fund assets will be valued and how the fund's likely costs will be calculated.

### Assumed Rate of Return (ARR)

ARR is the long-term rate of return your actuary assumes the fund's investment portfolio will achieve. A higher ARR assumes more investment earnings will be generated, therefore requiring lower county contributions to the fund. However, a county may need to invest more aggressively to achieve those higher returns and therefore will likely experience greater volatility in annual ARC. (If your fund does not earn the assumed rate of return, you will need to make up the difference with larger county contributions.)

In 2007, almost all reporting counties were using 7.5% as their ARR. However, more recently, we see a trend toward more counties lowering their ARR to 7.0%. According to the 2013 data from which this report is drawn, 4 of the 44 participating counties have lowered their return assumption to 7.0%. In view of some forecasts predicting lower expected returns for fixed income, we may see more pension plans lowering their ARR in the future.



### Salary Increase Assumptions

Salary increase assumptions are used to calculate future benefit payments and are included in the calculation of the actuarial accrued liability. The larger the percentage salary increase assumption, the greater the actuarial liability and, in the short term, the larger your ARC.

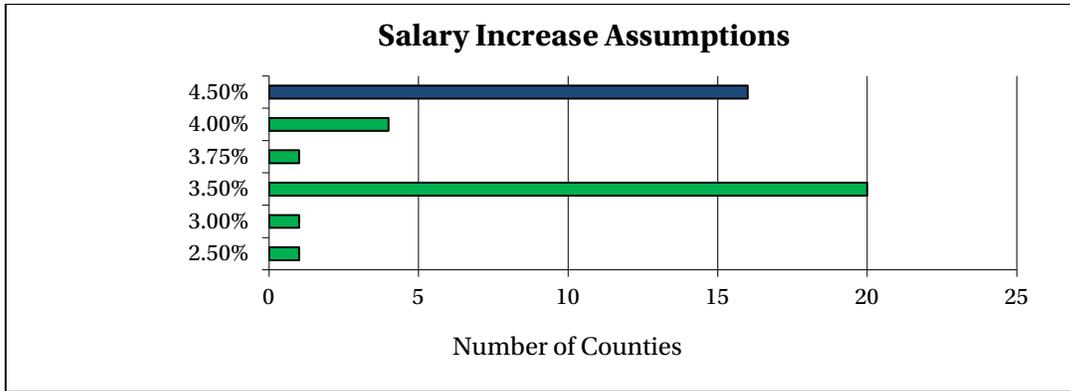
Lowering the salary increase assumption will lower your liability and lower your current ARC. However, using too low an assumption could leave your fund underfunded.

Due to the low inflationary environment of the past few years, we have seen a downward trend for the salary increase assumption.

Historically, counties used 4.5% for their salary increase assumption.

Compared to previous years, more participating counties now use a lower salary increase assumption of 3.5%.

The average salary increase assumption across participating counties is 3.9%.

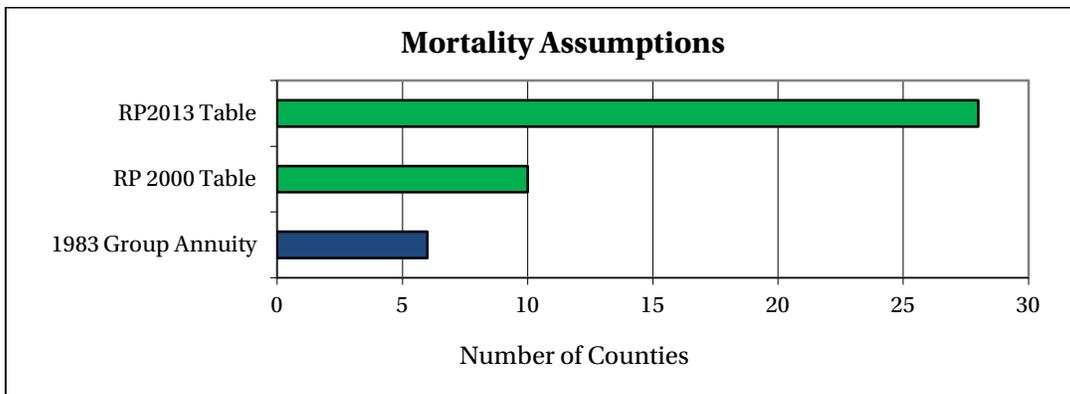


### Mortality Assumptions

*Mortality Assumptions* are used to project how long plan participants and their beneficiaries are expected to live, and thus the expected length (and therefore total amount) of benefit payments.

As people live longer (as reflected in the newer mortality tables), plan liabilities increase and a county's costs go up.

As life expectancy has improved, most counties have moved away from using the 1983 Group Annuity Rates to the more current RP 2000 or 2013 mortality tables. As the chart below shows, most of the participating counties in this year's report are now using the RP2013 Table. If the mortality table you use under-represents the likely length of the benefit payment period, your county may not be properly funding its obligations.



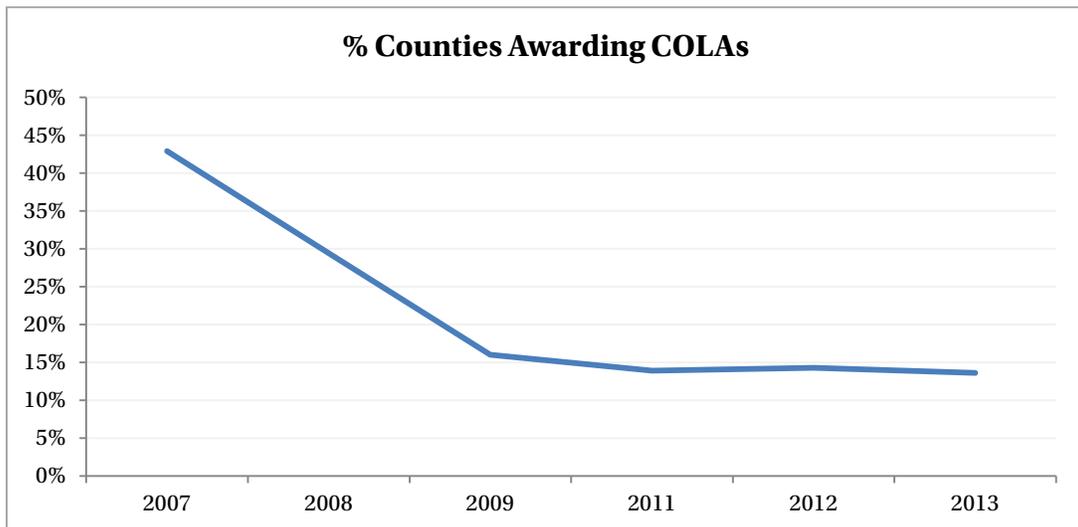
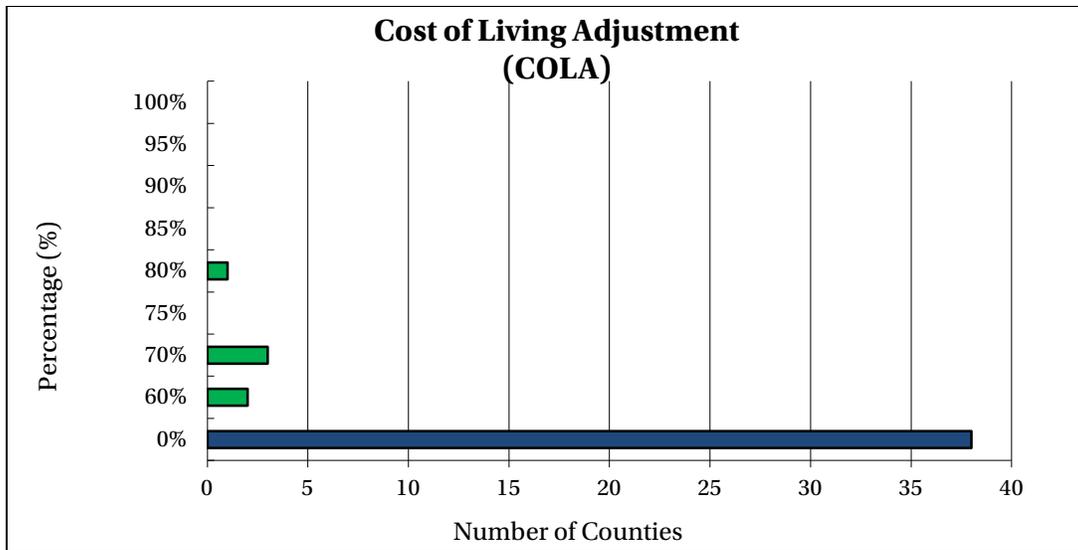
## Cost of Living Adjustments (COLA)

*Cost of Living Adjustments* change the amount of benefit payment to plan retirees and their beneficiaries. This, in turn, increases plan liabilities, which increase ARCs. Act 96 allows counties to provide COLA adjustments to 100% of the inflation rate.

Although popular prior to 2008, in light of the recent economic challenges, most counties have not provided COLAs for several years. Only 6 of the 44 reporting counties granted a COLA in 2013. This has been a steady trend for the past three years.

Some people are unclear how a COLA is calculated. You can find the calculation formula and an explanation on page 18 of this report.

*There are proposed changes to how the COLA is calculated. Please see the “Looking Ahead” section on page 20 for more information regarding PA Senate Bill 1078.*

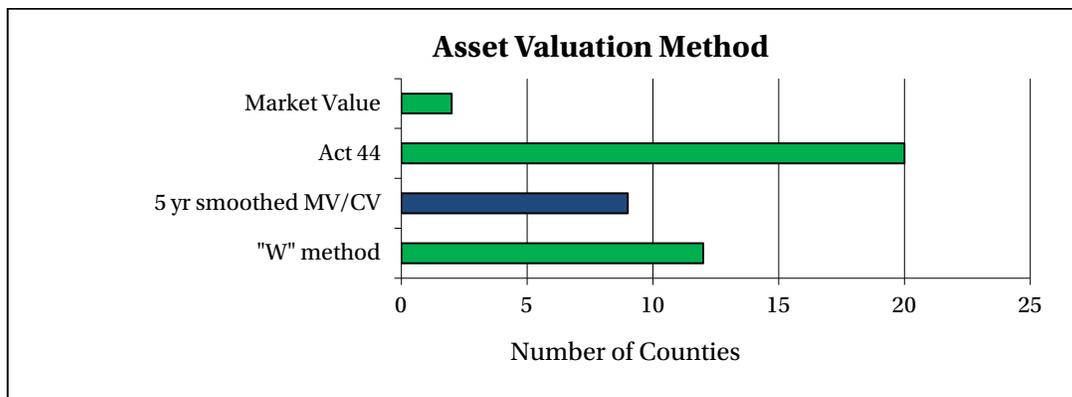


## Asset Valuation Method

There are a variety of methods that can be used to calculate your fund's *Actuarial Asset Value* (AAV). As there can be large swings to the up or down side in investment markets, county fund asset values may be quite volatile. Using the *actual* asset value in annual calculations would mean there could be large swings in the size of the ARC due to the volatility of the assets. Therefore, most actuarial asset valuation methods incorporate a smoothing approach, which moderates the effect of market swings on fund asset values for any one year and helps moderate volatility in ARCs.

Historically, most Pennsylvania counties used the 5-year smoothing method incorporating security cost value.

Following the market crash in 2008, the state legislature passed Act 44 to help Pennsylvania public funds find some relief from huge contribution increases. One aspect of Act 44 was the introduction of a valuation method that allowed counties to use the greater of market or previous year AAV increased by AAR minus 1%, adjusted for cash flow (up to 120% of their market value). In recent years, we are seeing participating counties moving toward the more widely accepted actuarial 5-year smoothing method that adjusts for unrecognized gains and losses, the so-called "W" method (shown at the bottom of the chart below).



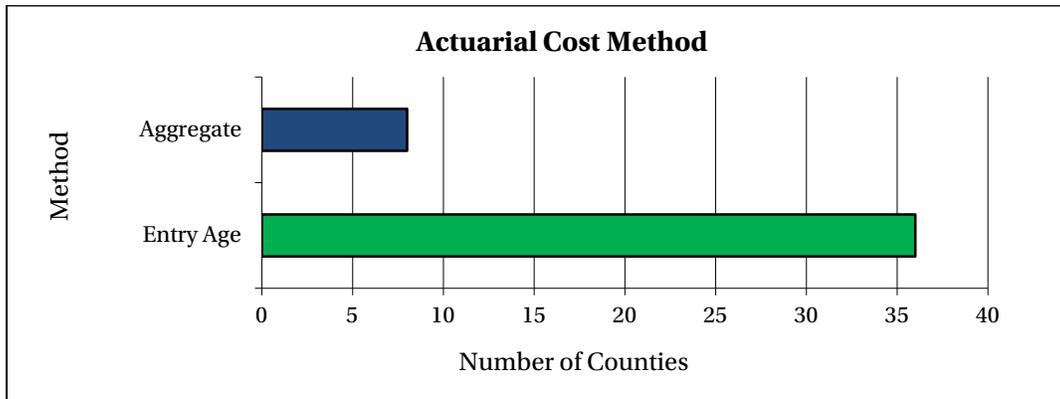
## Actuarial Cost Method

There are different actuarial cost methods for calculating future liabilities. In recent years, we have seen a trend among participating counties to move from *Aggregate* to *Entry Age Normal*.

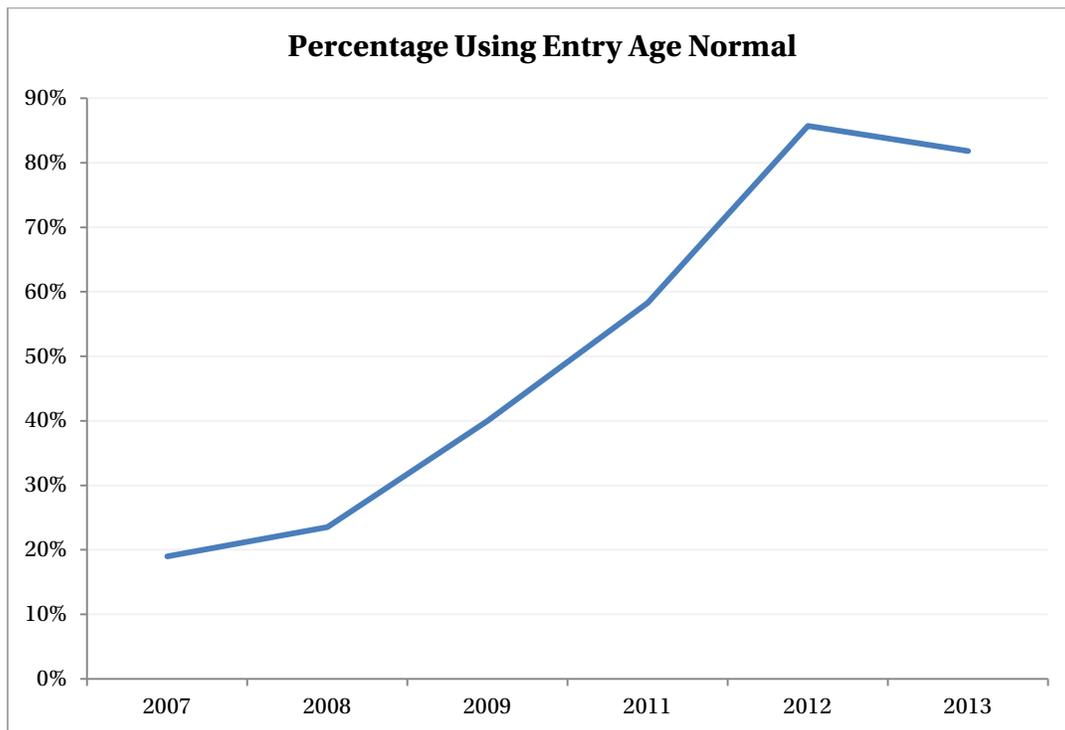
The **Aggregate** method takes the present value of benefits minus the asset value and spreads the excess amount over the future average years of service of the participants. It considers future projected years of service and future projected salary increases for current employees.

**Entry Age Normal** attempts to create a level percentage of salary contributions throughout the working career of an employee. Under this method, the cost of each individual's pension is allocated on a level percentage of payroll between the time employment starts (entry age) and the assumed retirement date. The goal is to spread the cost over the career of the member as a level percentage of payroll.

Entry Age Normal (EAN) is the method most commonly used by accounting and credit rating agencies. In fact, GASB Statement 67 & 68 shows a strong preference for the use of Entry Age Normal when calculating the plan's total pension liability for *accounting purposes*.



This year, 82% of participating counties used the EAN method, up substantially from the 19% of reporting plans that used the EAN method in 2007.



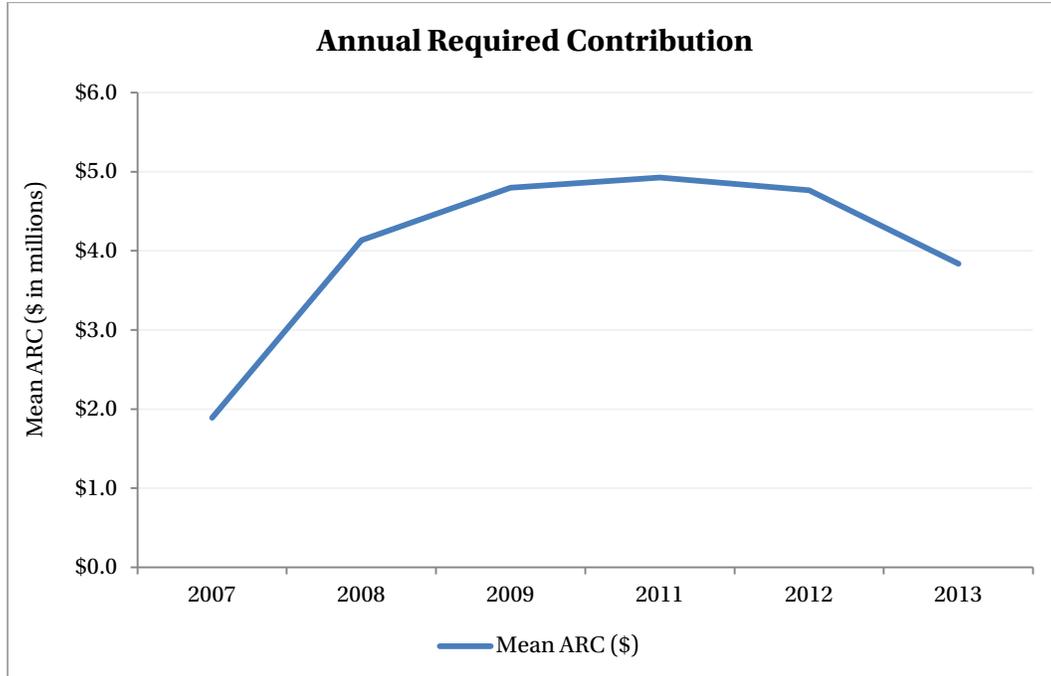
## ANNUAL REQUIRED CONTRIBUTION (ARC)

In the 1990s, most county pension plans had little to no ARC. However, due to the 2000 – 2002 bear market and 2008 market crash, many funds’ assets were depleted, leaving fewer funds available to pay pension benefits. In addition, due to the very strong market returns in the late 1990s, COLAs were awarded and benefit packages were increased. These two factors resulted in a significant increase in county ARCs in recent years to make up the asset shortfalls.

Of the 19 counties that have continuously participated in the Peirce Park Group Pennsylvania County Pension Plan Report, we can make the following observations:

- In 2007, the average county ARC for those 19 counties was \$1.9 million.
- In 2008, this jumped 119% to \$4.1 million.
- Even though the equity markets rebounded strongly since 2009, average county ARCs continued to increase through 2011.
- *2013 is the first year since at least 2007 that we have seen a significant reduction in the average ARC, down 19.5% from 2012, to \$3.8 million.*

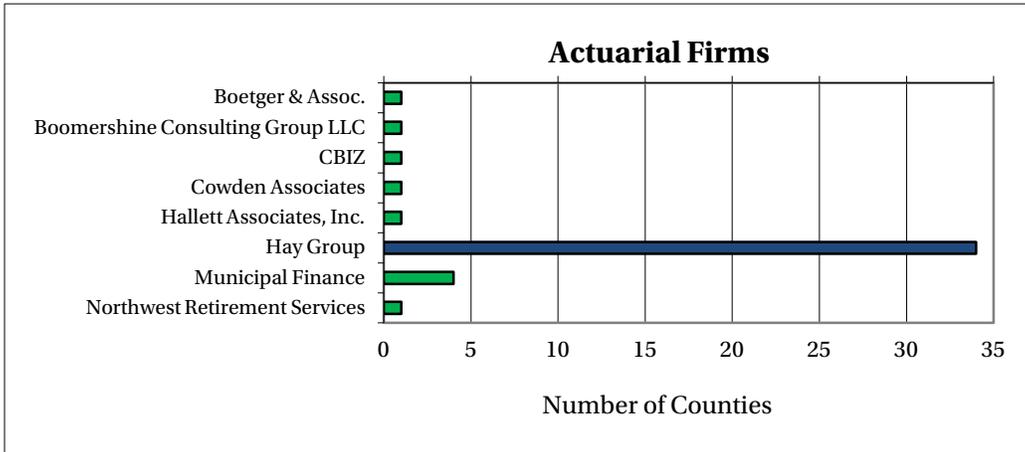
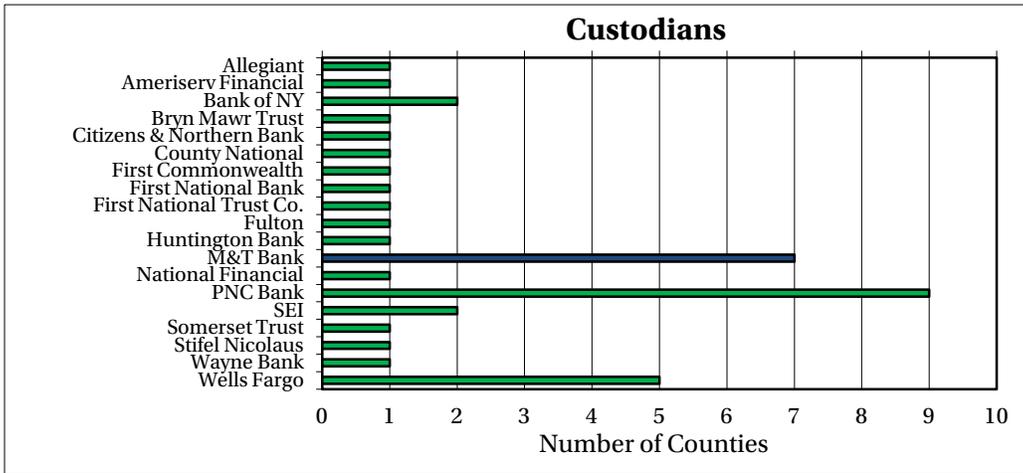
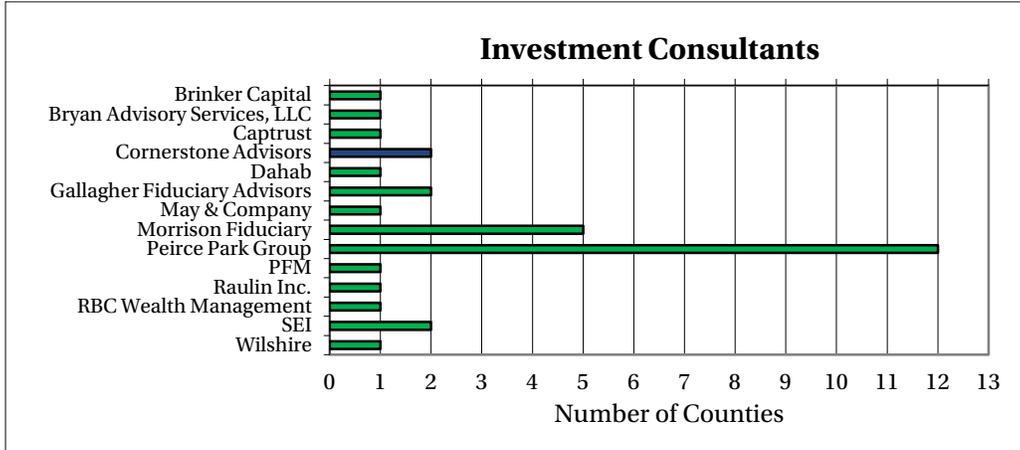
The continued ARC increases through 2011 were primarily due to the asset smoothing methods employed by actuaries. County plans did not absorb all of their 2008 losses in one year. The strong returns over the past five years have now offset much of the losses in 2008. Therefore, the average ARC of the 19 continuously reporting counties decreased in 2013.



## OTHER INFORMATION

### Plan Vendors

There are a variety of vendors that provide services to Pennsylvania counties. The charts below show how many counties are using various investment consultants, custodians, and actuarial firms.

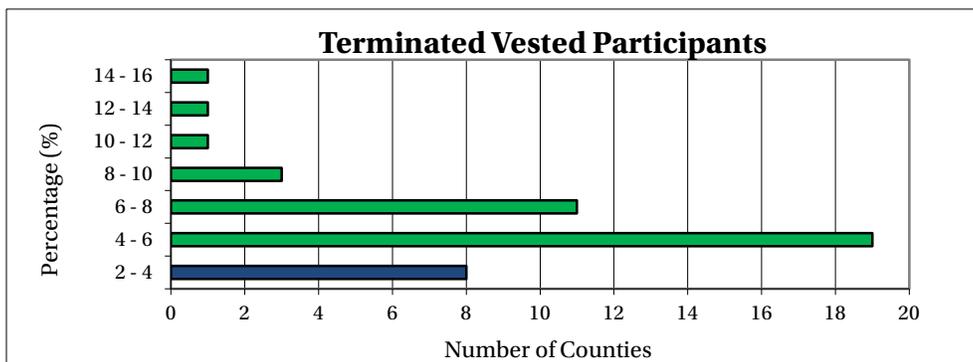
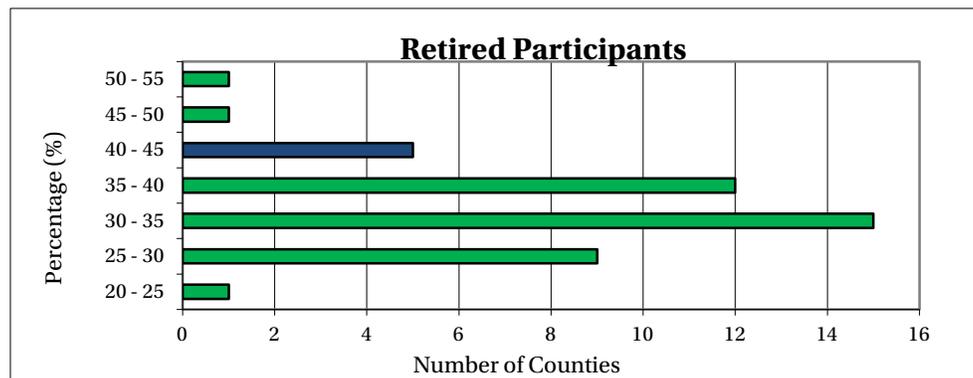
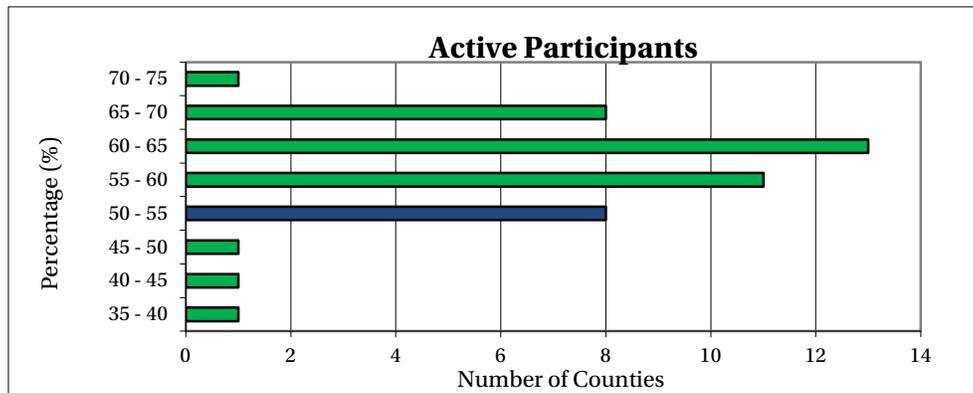


## County Plan Participants

Participants in a retirement plan fall into one of three categories:

- Active: still actively employed by the county
- Retired: no longer working and are drawing benefits
- Terminated vested: formerly worked for the county, eligible for benefits but are not currently drawing them

If your plan has a significant number of retirees, you may want to choose a more conservative and liquid fund investment approach to ensure you can readily meet these benefit payment obligations. This is one of the factors that needs to be taken into account when determining what a realistic investment return is based on your county's specific situation.



**Benefit Class**

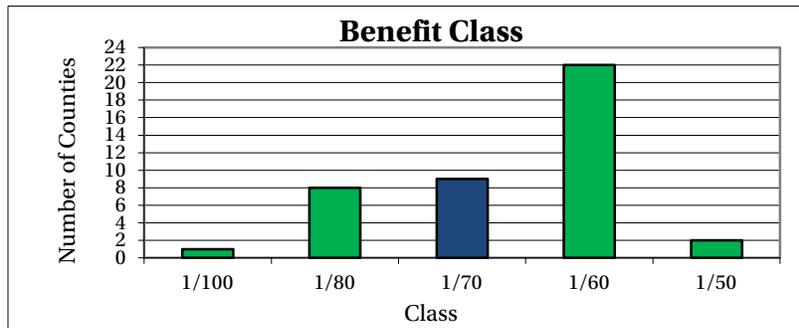
An employee receives benefits equal to their benefit class times their “final average salary” and years of service.

$$(\text{benefit class}) \times (\text{years of service}) \times (\text{final average salary}^*)$$

\*The average of the member’s annual compensation received for the three years that produce the highest such average.

For example:  $(1/60) \times 30 \times \$40,000 = \$20,000$  per year benefit

A benefit class (ratio) with a lower denominator will yield a higher benefit payment to the retiree. In the 1950s, most Pennsylvania county pension plans’ benefit class was (1/120) – (1/100). Over the years as assets grew, counties improved the benefit packages. In 2013, the benefit ratio of the reporting counties ranged from (1/50) – (1/100), with the majority of counties providing (1/60).



**COLA: Calculating the Adjusted Benefit**

Many people don’t understand how a COLA is calculated and what effect it has on the overall liability and pension cost. A COLA adjustment to a retiree’s monthly payment is based on the following:

- Monthly retirement payment (established as of retirement date)
- Overall inflation rate since retirement
- The COLA percentage

Here is a sample formula, based on the retiree having a monthly payment (at retirement) of \$1,000, with an overall inflation rate of 20% since the retirement, and a COLA rate of 80%:

$$\begin{array}{c}
 \text{Adjustment to Payment} \\
 \text{---} \\
 (\text{Orig. Retirement Payment} \times \text{Inflation Since Retirement} \times \text{COLA}) + \text{ORP} = \text{New Payment} \\
 (\$1,000 \quad \times \quad .20 \quad \times \quad .80) + \$1,000 = \$1,160
 \end{array}$$

The COLA percentage represents the portion of overall inflation the county is going to apply to adjust benefit payments. A 60% COLA means the retiree’s monthly benefits will increase by 60% of the inflation rate since that person’s retirement.

## LOOKING AHEAD

### **GASB Statements 67 and 68**

The Government Accounting Standards Board (GASB) Statements 67 and 68 are marking the most significant changes to Pennsylvania county pension plan financial reporting in many years. These standards are designed to increase comparability, consistency and transparency of pension related data reported in financial documents. In turn, they should create greater awareness of the full impact of benefits and liabilities and a clearer picture of the governmental unit's net pension position.

The most significant aspect of these regulations may be the change to the way government entities calculate and report the net pension liability. Under the new statements, the net pension liability will be equal to the present value of total future benefits to be paid, less the net position of the plan market value of assets. Government entities will also be required to include more extensive disclosures than in the past.

In preparing for complete GASB implementation, you will want to:

- Ensure you understand Statements 67 & 68 and how they will apply to your situation
- Determine how these changes will affect your county
- **Examine investment options that may help mitigate the financial statement effect**
- Develop a pension funding policy, which can help you navigate potentially competing objectives

Implementation for GASB 67 (pension plans) is underway. Implementation for GASB 68 (county financial reporting) starts in 2015.

**Feel free to contact Peirce Park Group if you would like more information about these important changes.**

### **Other Post Employment Benefits (OPEB)**

Earlier this year GASB released an exposure draft dealing with OPEB. This applies to counties that provide other post employment benefits, the primary one being health insurance for retirees. The proposed implementation date is 2016. The proposal follows closely with GASB 67 and 68 and will mean OPEB liabilities and costs will be reflected on the financial statements for the plan and the county in 2016 and 2017 respectively.

## **Pennsylvania Senate Bill 1078**

The Pennsylvania state senate recently approved Bill 1078, which would amend Section 30 (Supplemental Benefits) of the County Pension Law (Act 96 of 1971). This bill addresses the method by which a cost-of-living adjustment (COLA) would be calculated by a county. If passed, it would remove the existing “retroactive” provision. This provision has deterred some counties from approving a COLA due to the burden it might place on what may be an already strained county budget.

Bill 1078 proposes to amend Act 96 so that a COLA would *not* need to be calculated retroactively beginning at the time of any prior cost-of-living increase. The Bill is currently with the House Finance Committee.



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