

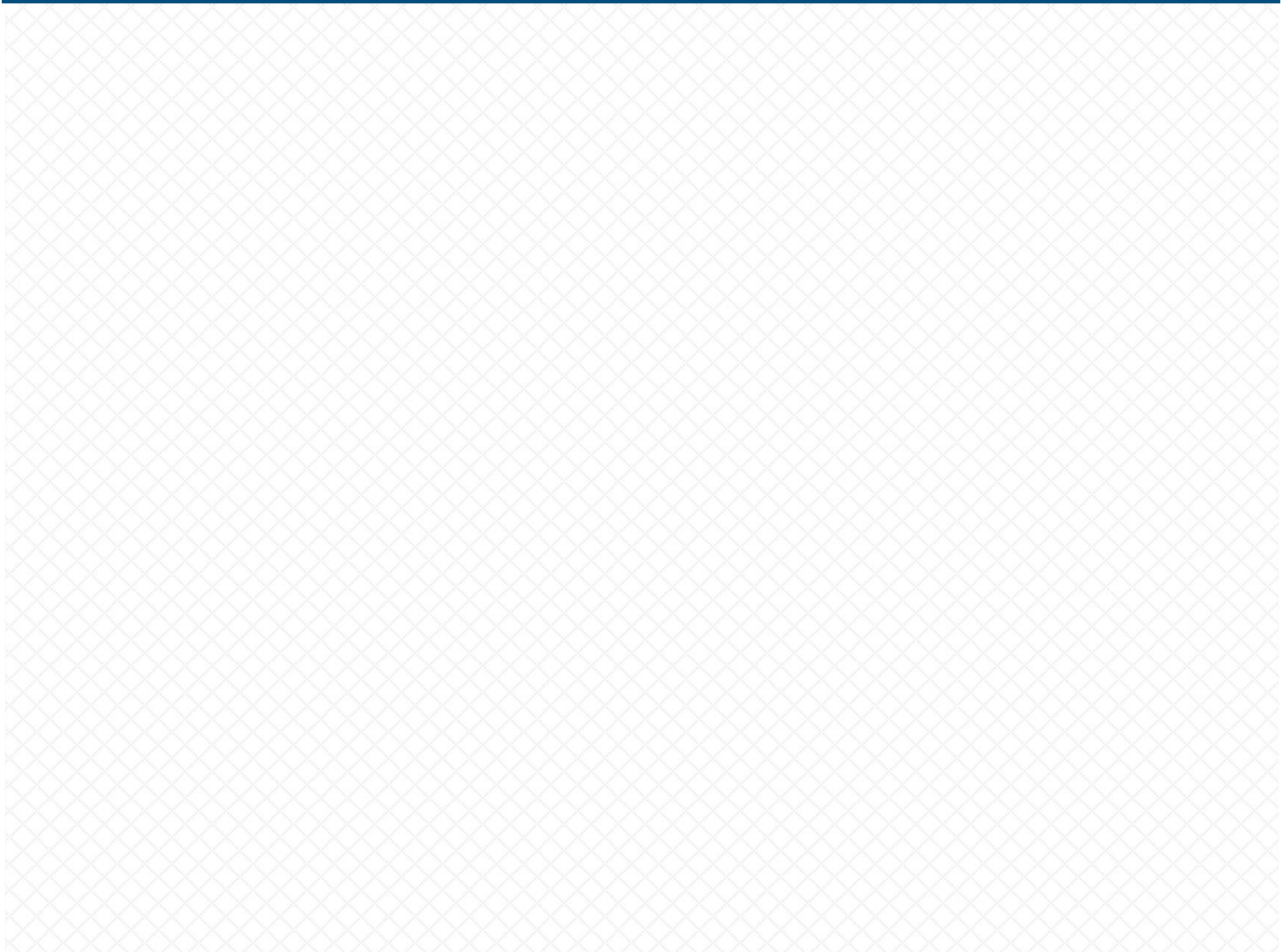


**SOCIETY OF
ACTUARIES**



January 2017

Multiemployer Pension Plan System Overview



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Acknowledgments

The author thanks the following volunteers for their arm's-length review of this material. Any opinions expressed may not reflect their opinions nor that of their employers. Any errors belong to the author, not to them:

- Christian E. Benjaminson, FSA, EA, FCA, MAAA
- James B. Dexter, FSA, EA, FCA, MAAA
- Paul B. Dunlap, FSA, EA, FCA, MAAA
- Josh A. Shapiro, FSA, EA, FCA, MAAA

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1 Introduction and Executive Summary

Multiemployer pension plans (MEPPs) in the United States generally cover employees—typically unionized—from more than one participating private sector employer. About 200,000 employers contribute to approximately 1,300 plans that cover roughly 10 million participants, about 3.5 million of whom are retired.¹

This report provides an overview of the financial status of the MEPP system in aggregate and updates to three previous Society of Actuaries' analyses of the MEPP system:

- PBC and PBCR— metrics for measuring the financial stress imposed on pension plans by the combination of unfunded liabilities and declining numbers of active participants.²
- Contribution indices—metrics for measuring pension plan contribution efficacy toward funding the plan.³
- Employer withdrawal overview—the impact of employers that discontinue participating in multiemployer plans.⁴

Updated analyses are based on based on the Department of Labor Form 5500 database as of Oct. 28, 2016. The most recent complete year of reporting is for plan years beginning in 2014. The data also includes a partial year of reporting for the 2015 plan year, primarily plans with plan years beginning in January 2015. The following highlights stem from the analyses:

- Aggregate MEPP system unfunded liabilities declined from 2013 to 2014. Using funding discount rates and the market value of assets, unfunded liabilities declined approximately 16% from \$162 billion to \$136 billion.⁵ On a Current Liability basis, which uses discount rates based on Treasury rates, unfunded liabilities declined from \$513 billion for 2013 to \$495 billion for 2014.⁶
- Compounding the funding stress in the MEPP system, dependency ratios (the ratio of inactive participants to active participants) generally continued to increase. With a slight uptick from 2013, by 2014 the MEPP system bore 1.75 inactive participants per active participant, compared to 1.40 in 2009.⁷
- While stress levels remain high, both PBC and PBCR show slight improvements from 2013 to 2014 for much of the MEPP system—indicating slight reductions in stress imposed by unfunded

¹ Many employers contribute to more than one MEPP, and many participants have benefit under more than one plan. Employer and participant data presented in this report reflect the sum of counts for each plan.

² Society of Actuaries, “Multiemployer Plan Stress Metrics,” August 2015, <http://www.soa.org/Research/Research-Projects/Pension/research-2015-08-multiemployer-plan-stress-metrics.aspx>.

³ Society of Actuaries, “Multiemployer Pension Plan Contribution Analysis,” March 2016, <https://www.soa.org/Research/Research-Projects/Pension/2016-multiemployer-pension-plan-analysis.aspx>.

⁴ Society of Actuaries, “Multiemployer Pension Plan Withdrawal Overview,” December 2015, <https://www.soa.org/Research/Research-Projects/Pension/2015-multi-employer-plan-withdrawal.aspx>.

⁵ Internal Revenue Code §§431–432 and associated regulations define funding rules for MEPPs.

⁶ Current Liability basis uses the unit credit cost method, discount rates based on an average of Treasury discount rates and mortality rates as prescribed by Internal Revenue Code §431 and the market value of assets.

⁷ Inactive participants include retirees as well as participants no longer accruing benefits but not yet retired.

liabilities. In general, plans with below-average stress levels improved more than plans with above-average stress levels.

- For the first time in recent years, aggregate contributions for 2014 met the benchmark for eliminating unfunded liabilities within 15 years when using funding-basis discount rates. However, when using Current Liability discount rates, 2014 contributions continue to fall significantly short of the level needed to maintain existing unfunded liabilities.
- In 2014, about 45% of MEPP participants were in plans that received at least enough contributions to fund the plan within 15 years using funding basis discount rates, up from 35% the year before. However, using Current Liability discount rates, fewer than 1% of participants were in such plans.
- Although nearly 90% of MEPP participants were in plans that received more contributions for 2014 than required by federal law, 30% of MEPP participants were in plans that did not receive sufficient contributions to maintain existing unfunded liabilities computed on the same basis, down from 45% for 2013. Regulations reduce the minimum required contribution by the “credit balance,” a mechanism for recognizing that a plan’s past contributions were more than the minimum required.⁸
- In general, fewer than 2% of employers withdrew in a given year. While only about 20% of the plans experienced withdrawals, these plans represent more than 60% of MEPP participants. While slightly fewer employers withdrew in 2014 than 2013, somewhat fewer but larger plans were affected; the percentage of MEPP participants in affected plans was the same.
- For most plans that experienced withdrawal, assessed withdrawal liability was less than 1% of the plan’s liabilities as measured using funding discount rates. Consistent with prior years, withdrawal liabilities assessed in 2014 exceeded 15% of plan liabilities for fewer than 10% of MEPPs.

2 MEPP System Overview

2.1 Aggregate MEPP Liabilities and Funded Status

The MEPP system carries significant unfunded liabilities, regardless of the assumptions and methods used to measure them (see Figure 1). When measured for funding purposes, MEPP liabilities are typically computed using a discount rate that is intended to represent the expected return on plan assets over the life of the plan.⁹ From 2013 to 2014, unfunded liabilities using funding discount rates and the market value of assets declined approximately 16% from about \$162 billion to \$136 billion. Most MEPPs had an unfunded liability on this basis.

When measured using much lower discount rates based on Treasury rates as prescribed by Internal Revenue Code for MEPP Current Liability (see Figure 2), unfunded liabilities improved slightly from

⁸ Funding requirements for MEPPs are set forth in Internal Revenue Code §§431-432 and accompanying regulations.

⁹ Internal Revenue Code §§431–432 and associated regulations define funding rules for MEPPs.

roughly \$513 billion for 2013 to \$495 billion for 2014.¹⁰ Almost all MEPPs had an unfunded liability on this basis.

Figure 1

AGGREGATE TOTAL LIABILITIES AND FUNDED STATUS

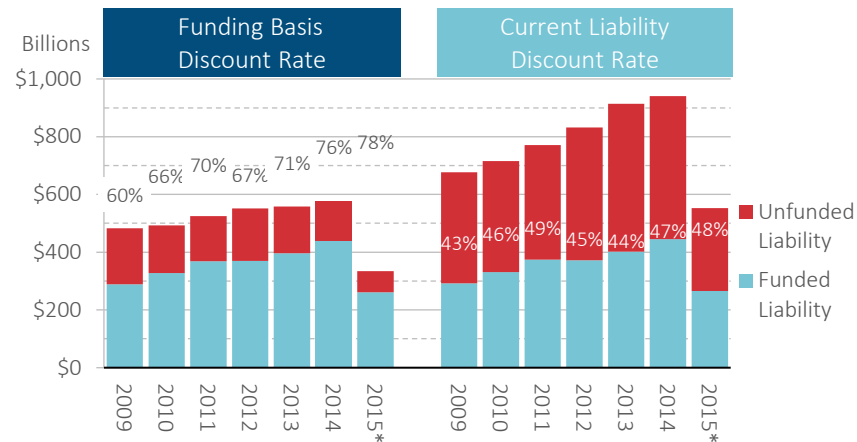
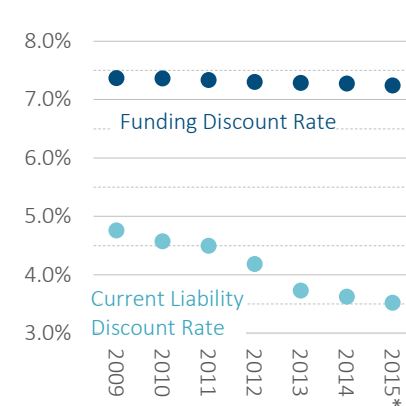


Figure 2

LIABILITY-WEIGHTED AVERAGE DISCOUNT RATES



One significant factor in declining unfunded liabilities was greater investment returns than assumed during the 2013 plan year. While the weighted average assumed rate of return was 7.3% (see Figure 2), the weighted average return on the market value of assets for 2013 was 15.5%.

2.2 Participant Trends and Dependency Ratio

With significant unfunded liabilities, MEPP dependency ratios (the ratio of inactive to active participants) are important. Unfunded liabilities reflect benefits earned by both active and inactive participants. However, MEPP contributions are typically negotiated as a rate per unit of work—for example, \$X per hour—and employers contribute based on active participants’ actual level of work. Therefore, all other things being equal, a plan with more inactive participants relative to active participants (dependency ratio) will feel greater pressure on its contribution rates.¹¹

Throughout the period studied, inactive participants outnumbered active participants in the MEPP system. Figure 3 on the following page shows that since 2001 the number of inactive participants steadily increased, while the number of active participants decreased.

¹⁰ Current Liability basis uses the unit credit cost method, discount rates based on a prescribed average of Treasury discount rates, prescribed mortality rates and the market value of assets. Liabilities for funding purposes use varying cost methods, discount rates typically are based on a long-range expected return on plan assets, mortality assumptions vary by plan and assets may be smoothed.

¹¹ Inactive participants include retirees as well as participants no longer accruing benefits but not yet retired.

Figure 3
NUMBER OF PARTICIPANTS

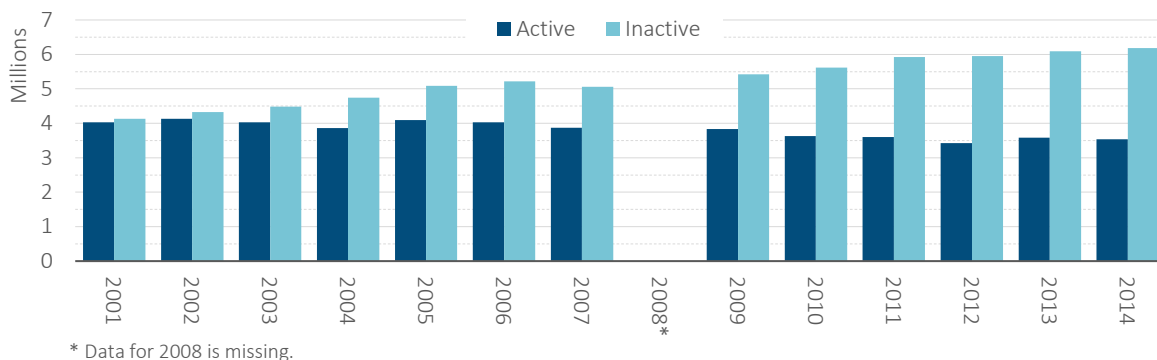
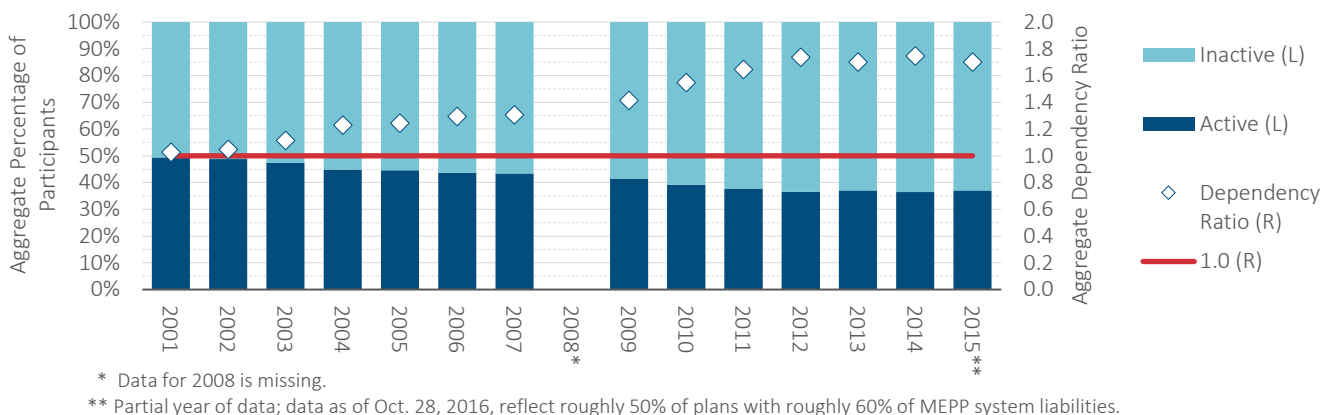


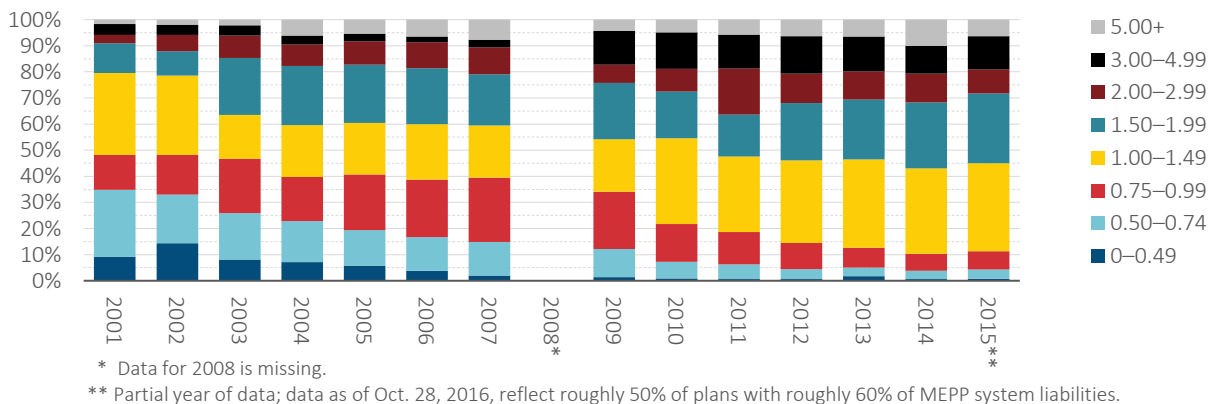
Figure 4 shows the increasing aggregate dependency ratio. In 2001, there were 1.02 inactive participants per active participants in the MEPP system. By 2014, the aggregate dependency ratio had risen to 1.75.

Figure 4
AGGREGATE DEPENDENCY RATIO



While Figure 4 shows how the aggregate dependency ratio has changed over time, Figure 5 shows the frequency of dependency ratios among plans over time.

Figure 5
DEPENDENCY RATIO: PERCENTAGE OF PARTICIPANTS IN RANGES



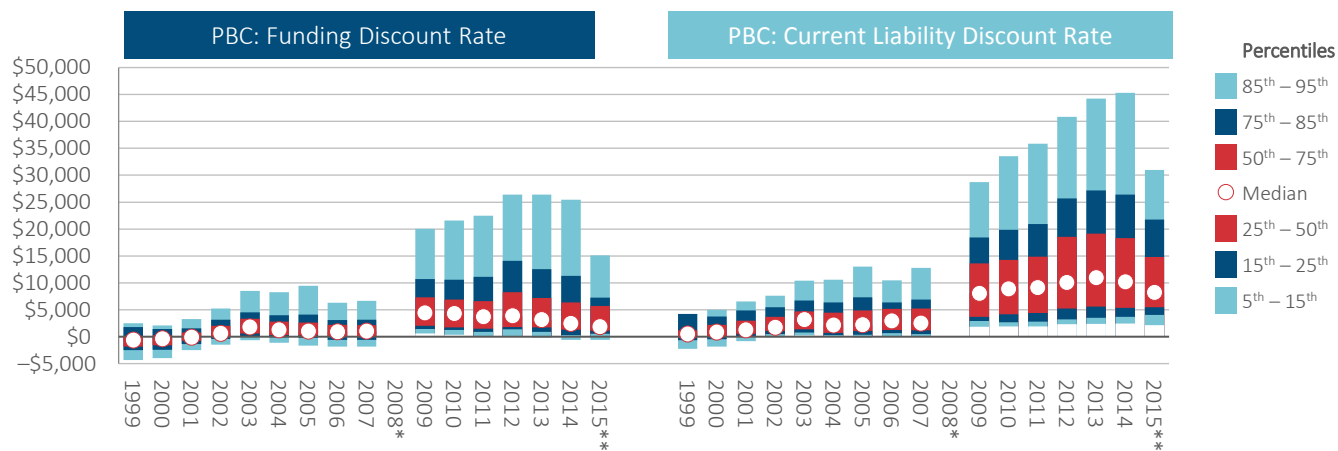
In 2001, nearly 1 out of 10 MEPP participants was in a plan with a dependency ratio of 2.0 or greater. By 2014, 1 out of 10 MEPP participants was in a plan with a dependency ratio of 5.0 or greater, and 3 out of 10 were in plans with a dependency ratio of 2.0 or more.

3 Previous Benefit Cost and Previous Benefit Cost Ratio

3.1 Previous Benefit Cost (PBC)

A plan’s PBC represents the annualized cost of funding its unfunded liability per active participant.¹² Figure 6 shows the distribution of PBCs across the MEPP system by percentiles, weighted by participants in order to better represent the system as a whole. PBCs presented here are nominal—they have not been adjusted for inflation.

Figure 6
PBC AT FUNDING AND CURRENT LIABILITY DISCOUNT RATES: PERCENTILES



* Data for 2008 is missing.
**Partial year of reporting; data as of Oct. 28, 2016, reflect roughly 50% of plans with roughly 60% of MEPP liabilities for 2015.

Figure 6 also shows that plans with the highest stress levels have in general felt increasing stress levels.

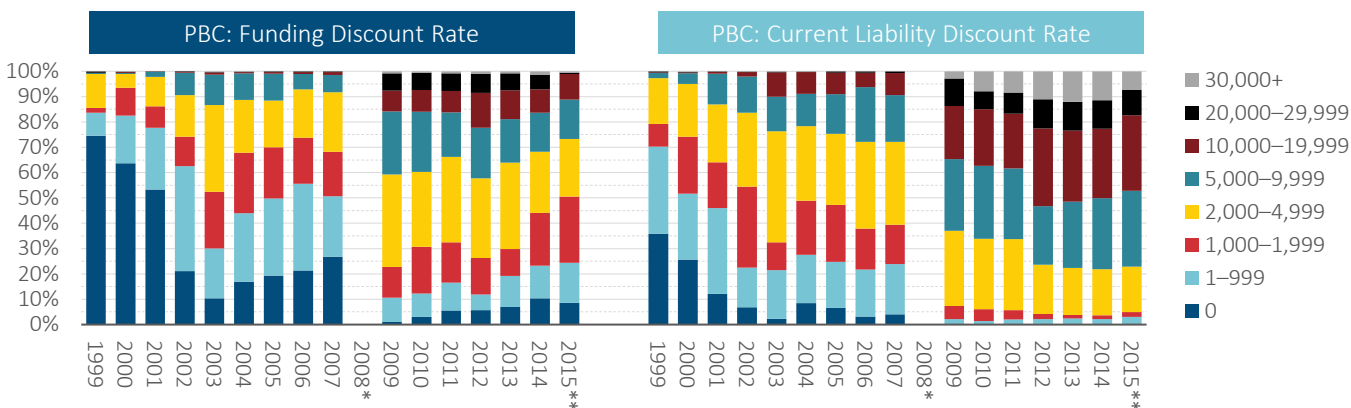
Figure 7 on the following page shows percentages of plans with PBCs falling within specified ranges—a slightly different view than percentiles provide. Both graphs show that in general, stress levels are much higher than they were 10 to 15 years ago, but they have started to show signs of improvement.

Early indications for 2015 show potentially further declining stress levels, although reporting is not yet complete.

¹² PBC and PBCR measure unfunded liability using the unit credit cost method and market value of assets; annualized cost of the unfunded liability is defined as a 15-year level-dollar amortization payment on the unfunded liability.

Figure 7

PBC AT FUNDING AND CURRENT LIABILITY DISCOUNT RATES: PERCENTAGES BY RANGE



* Data for 2008 is missing
 ** Partial year of data; data as of Oct. 28, 2016, reflect roughly 50% of plans with roughly 60% of MEPP system liabilities.

3.2 Previous Benefit Cost Ratio (PBCR)

A plan’s PBCR represents the annualized cost of its unfunded liability as a portion of its total annualized cost, including the cost of current benefit accruals and administrative expenses.¹³ Figure 8 and Figure 9 show the same types of distributions for PBCR that Figure 6 and Figure 7 showed for PBC.

Figure 8

PBCR AT FUNDING AND CURRENT LIABILITY DISCOUNT RATES: PERCENTILES

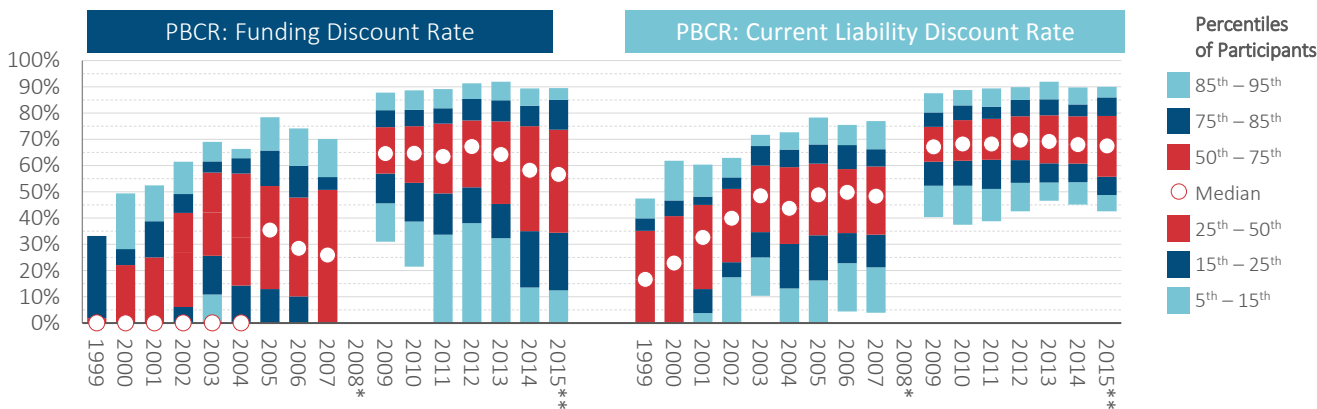


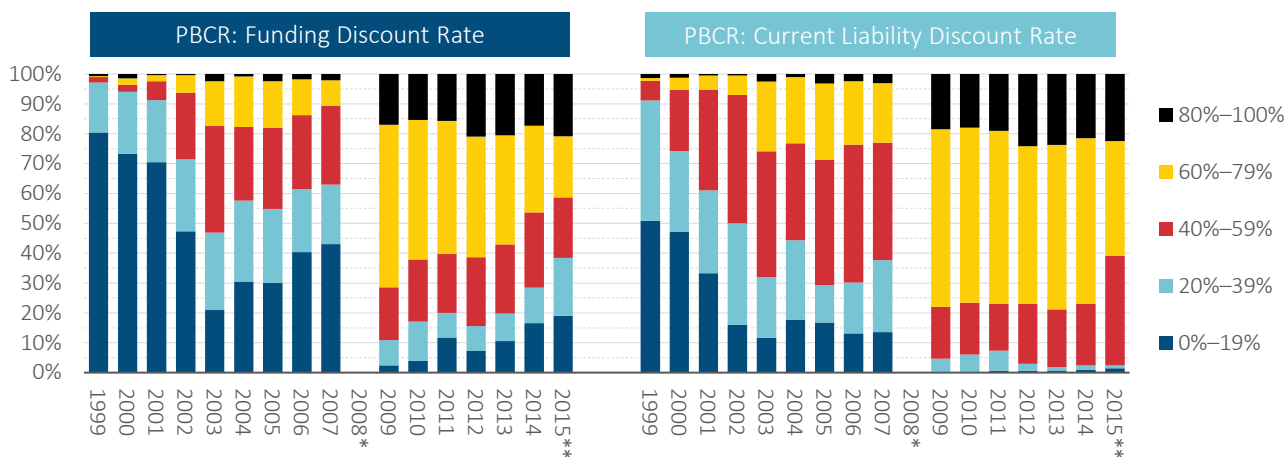
Figure 8 shows that since 2009, over half of MEPP participants are in plans that have a PBCR of 50% or more on either basis, meaning the annualized cost of the unfunded liabilities outweighs the cost of current participants’ benefit accruals for the year. When measured at funding discount rates, some plans enjoy rather low PBCRs with a few at 0%, indicating no unfunded liability. However, when measured at

¹³ PBC and PBCR measure unfunded liability using the unit credit cost method and market value of assets; annualized cost of the unfunded liability is defined as a 15-year level-dollar amortization payment on the unfunded liability.

the lower Current Liability discount rates, even the lowest PBCRs are 50% or greater. Figure 9 shows the distribution of PBCRs via percentages of participants in plans with PBCR in a given range.

Figure 9

PBCR AT FUNDING AND CURRENT LIABILITY DISCOUNT RATES: PERCENTAGES BY RANGE



* Data for 2008 is missing.

** Partial year of data; data as of Oct. 28, 2016, reflect roughly 50% of plans with roughly 60% of MEPP system liabilities.

Both PBCR distributions show that although the system has seen steady improvement (decreasing PBCRs) since 2009, the annualized costs of unfunded liabilities significantly outweigh the cost of current participants’ benefit accruals for at least half of the participants in MEPPs. PBCRs on the Current Liability basis are generally greater than on the funding basis because the lower Current Liability discount rates result in greater unfunded liabilities.

4 Contribution Indices

After some background on MEPP contributions, this section presents updated results across the MEPP system through 2014, with preliminary results for 2015 based on a partial year of reporting.

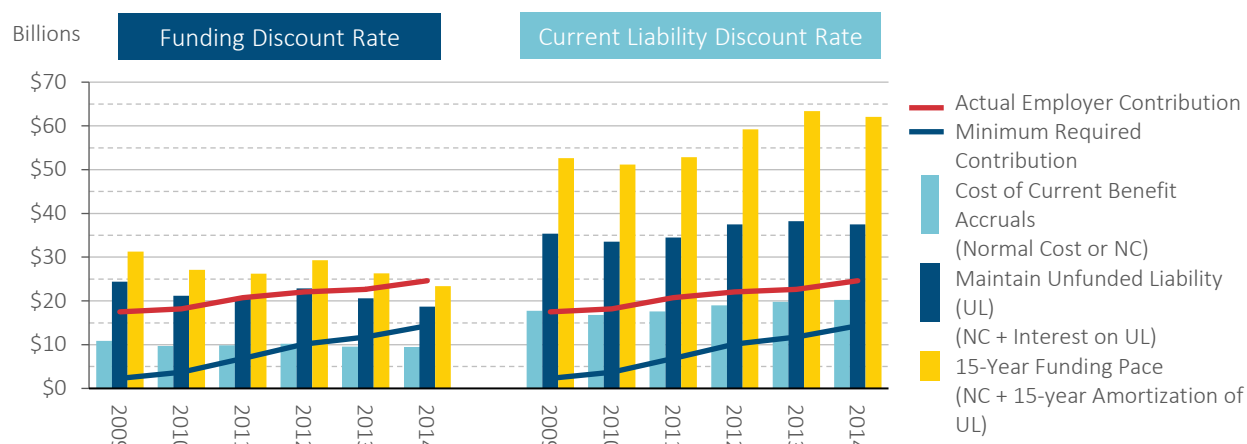
4.1 MEPP Contribution Background and Trends

In general, MEPP contributions are negotiated and agreed upon between unions and employers as a rate per unit of work (for example, \$X per hour or week worked). Sometimes contribution rates are linked to benefit levels, but not always. While the collective bargaining agreement is in effect—typically three to five years—the agreed-upon contribution rates remain in effect, regardless of changes in the plan’s funded status.

Aggregate MEPP contributions increased on average 7.1% per year from 2009 to 2014. In addition, during the same period they continually significantly exceeded minimum required contributions. However, 2014 was the first year during this period for which aggregate contributions met the benchmark for funding the system within 15 years when measured using funding-basis discount rates. And 2013 was the first year

during this period for which aggregate contributions exceeded the benchmark for maintaining existing unfunded liabilities, as Figure 10 shows.¹⁴

Figure 10
AGGREGATE MEPP CONTRIBUTIONS COMPARED TO BENCHMARKS



But when measured using Current Liability discount rates, aggregate contributions for 2014 continued to fall significantly short of the level needed to maintain existing unfunded liabilities, let alone to make funding progress.

Funding-pace benchmarks use the unit credit cost method and market value of assets. This methodology was designed only for contribution indices and their benchmarks and is not intended to provide commentary on the appropriateness of either assumptions or methods for funding these plans or any other purpose.

4.2 Contribution Indices

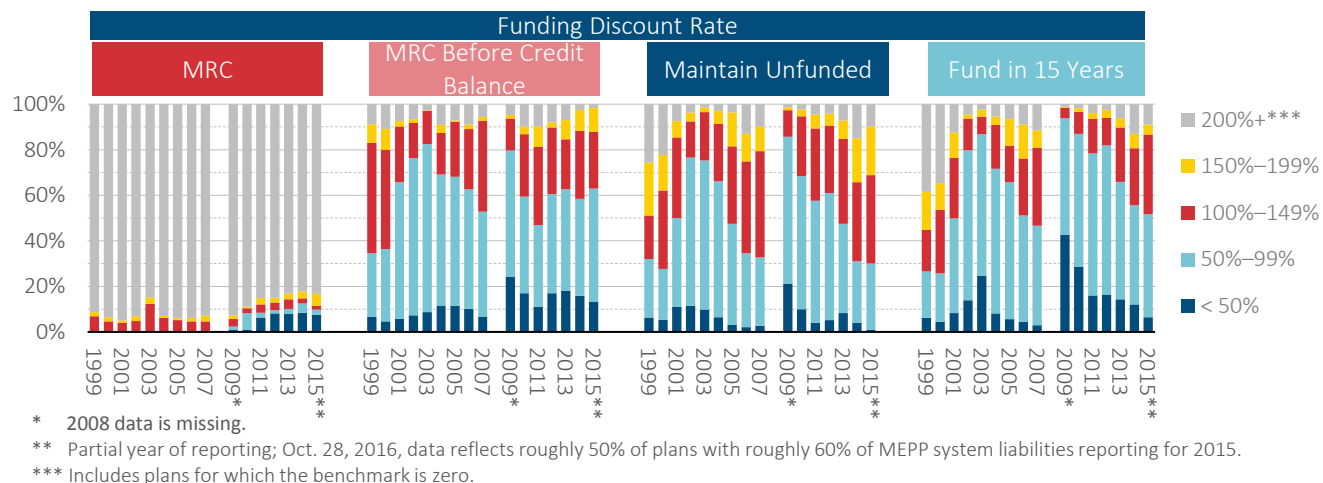
The contribution index (CI) compares a plan’s contribution to benchmarks. A plan’s CI is the ratio of its actual contribution to a given benchmark. A CI of more than 1.0 means that the contribution exceeded the benchmark, while a CI of less than 1.0 means the contribution fell short of the benchmark.

Figure 11 illustrates the frequency, weighted by participants, that the MEPP system’s CIs fell within certain ranges when CI benchmarks are computed using the discount rates used for funding purposes. The graph presents two benchmarks from a regulatory perspective in addition to the two benchmarks from a funding perspective presented in Figure 10. Regulatory perspective benchmarks are the minimum required contribution (MRC) under federal law, and for illustration, the MRC before reduction by the credit balance, a mechanism for recognizing that a plan’s past contributions were more than the minimum required.¹⁵

¹⁴ Contributions in aggregate provide a point of reference only and cannot be used to measure the funding pace for every plan in the system. Some plans contributed significantly more than this pace while others contributed significantly less.

¹⁵ Funding requirements for MEPP are set forth in Internal Revenue Code §§431-432 and accompanying regulations.

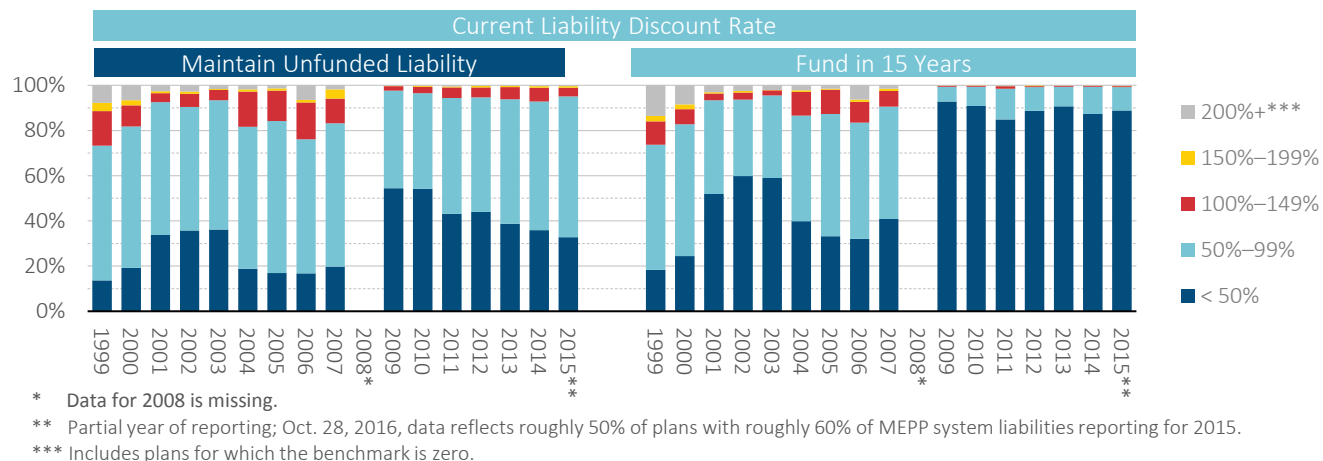
Figure 11
CONTRIBUTION INDICES USING FUNDING DISCOUNT RATES



MEPP contributions generally exceeded the MRC. For 2014, nearly 90% of the MEPP participants were in plans for which 2014 contributions exceeded the MRC—about the same as 2013. That figure includes the approximately 80% of MEPP participants who were in plans that had no MRC. However, since 2009 only about 40% of MEPP participants were in plans whose contributions would have exceeded the MRC if regulations did not recognize the credit balance.

Turning to funding progress as measured using funding-basis discount rates, more than 30% of MEPP participants were in plans whose 2014 contributions fell short of maintaining existing unfunded liabilities—a significant improvement since 2013 when over 45% of the system fell short of the same benchmark. In addition, approximately 45% of participants were in plans whose 2014 contributions met or exceeded levels needed to close funding gaps within 15 years—up from about 35% for 2013. Preliminary results for 2015 indicate potential for slightly improved funding rates compared to 2014. Figure 12 on the following page shows that using Current Liability discount rates, contributions were less effective.

Figure 12
CONTRIBUTION INDICES USING CURRENT LIABILITY DISCOUNT RATES

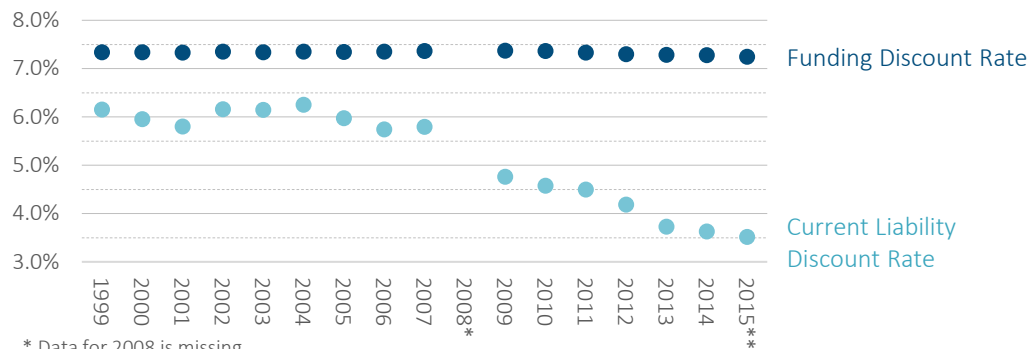


Using Current Liability discount rates, only 6% of 2014 MEPP participants were in plans that received enough contributions to maintain the existing unfunded liability, and less than 1% of participants were in plans that received enough to meet the benchmark for closing the funding gap within 15 years. These results are slightly worse than for 2013 when Current Liability discount rates were slightly higher.

Figure 13 compares funding-basis and Current Liability discount rates from 1999 to 2015. The weighted average funding discount rate remained essentially flat during this period, whereas Current Liability rates decreased substantially.

Figure 13

LIABILITY-WEIGHTED AVERAGE DISCOUNT RATES



* Data for 2008 is missing.

** Data as of Oct. 28, 2016, reflect roughly 50% of plans with roughly 60% of liabilities reporting for 2015.

5 Withdrawal Overview

5.1 Withdrawal Introduction

When an employer withdraws—discontinues participation—from a MEPP, the employer stops making regular contributions. If the plan is underfunded, generally the employer is assessed withdrawal liability, which is typically paid to the plan over time. Because of a variety of statutory and practical limitations, withdrawal liability actually paid may or may not be sufficient to cover any unfunded liabilities associated with the now-withdrawn employer.¹⁶

This section provides an overview of MEPP withdrawals and shows relationships present among the data studied. The relationships neither are intended to, nor should be understood to imply causation of or correlation to withdrawal.

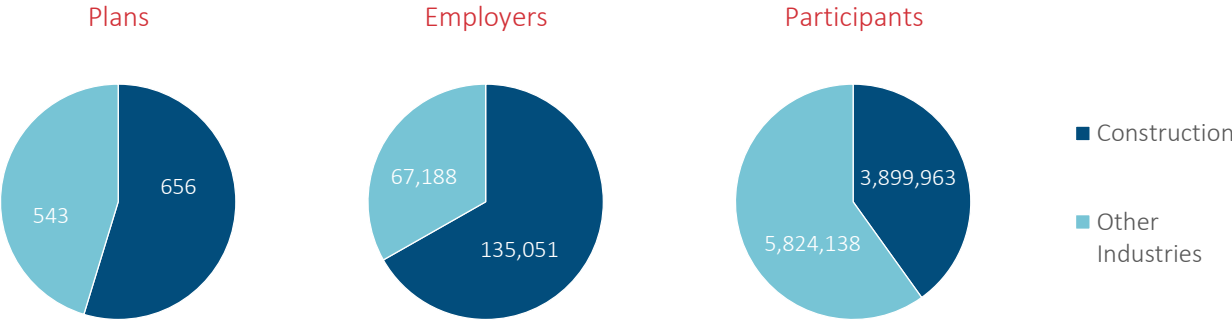
5.2 Construction Industry

Withdrawals can be especially difficult to identify for plans in the construction and entertainment industries because of industry-specific dynamics, and special rules apply to recognize these differences. While there are only a few plans associated with the entertainment industry, the construction industry

¹⁶ Withdrawal liabilities are governed by the Employee Retirement Income Security Act §§4201-4225, amended by the Multiemployer Pension Reform Act of 2014.

holds a significant presence in the MEPP universe. Accordingly, this article differentiates analyses by construction versus other industries. Figure 14 shows that for 2014, 55% of plans, about two-thirds of employers and 40% of participants were associated with the construction industry.

Figure 14
PREVALENCE OF CONSTRUCTION INDUSTRY—2014

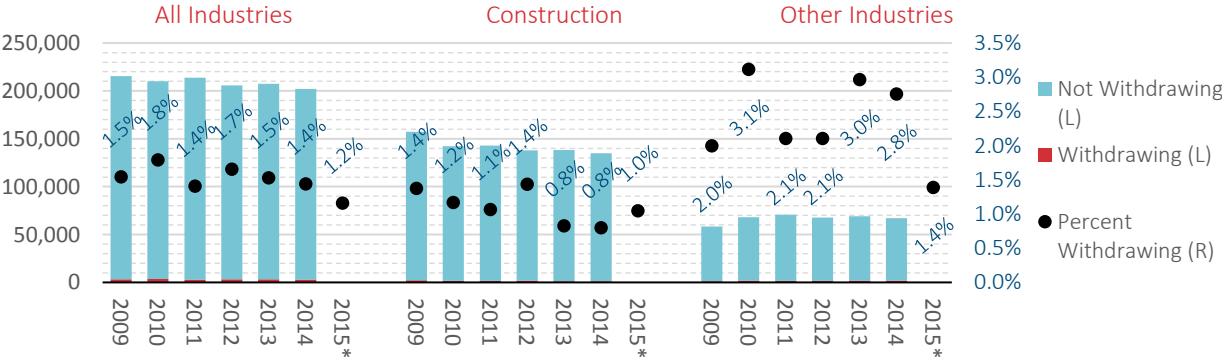


5.3 Withdrawal Frequency

Across the MEPP universe, employer withdrawals in 2014 were similar in almost all respects to 2013 and the period 2009–2014 in general. On average over those years, 1.6% of contributing employers withdrew annually, affecting 18% of the plans. The plans that experienced withdrawal tended to be larger plans, which generally have greater numbers of participating employers. On average since 2009, 63% of the system’s roughly 10 million participants were in plans that experienced withdrawal. Compared to 2014, early indications for 2015 show slightly fewer employers withdrawing from slightly more but smaller plans.

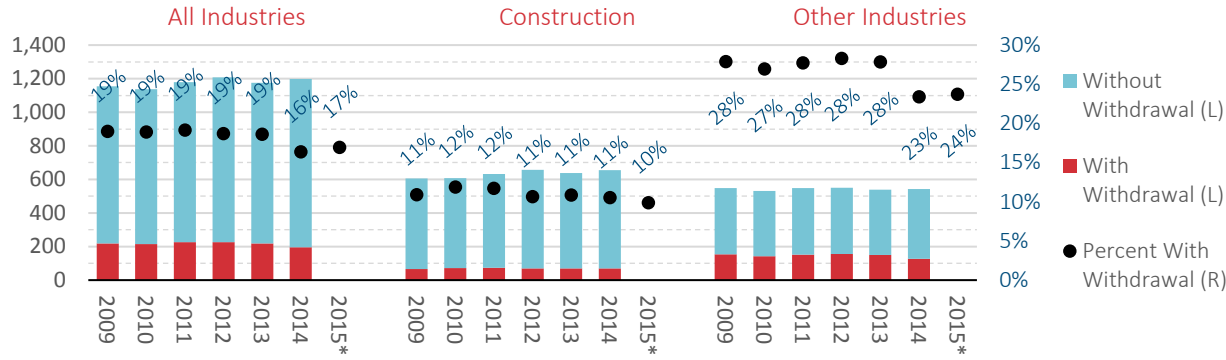
Figure 15 illustrates the number and percentage of employers that withdrew each year, while Figure 16 shows plans affected and Figure 17 represents participants affected.

Figure 15
NUMBER OF EMPLOYERS



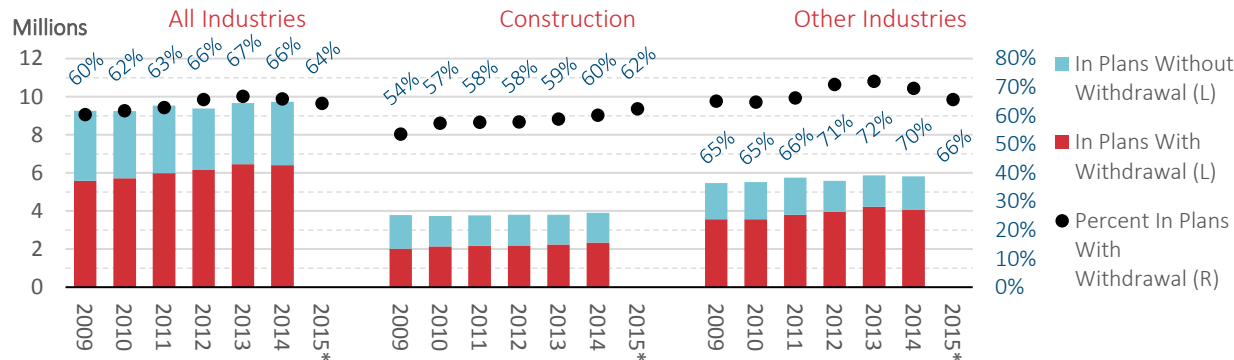
* Partial year of reporting; data as of Oct. 28, 2016, represent roughly 50% of plans with roughly 60% of liabilities

Figure 16
NUMBER OF PLANS



* Partial year of reporting; data as of Oct. 28, 2016, represent roughly 50% of plans with roughly 60% of liabilities

Figure 17
NUMBER OF PARTICIPANTS



* Partial year of reporting; data as of Oct. 28, 2016, represent roughly 50% of plans with roughly 60% of liabilities

The construction industry reported a slightly lower rate of withdrawal than other industries during these years; note that withdrawals can be especially difficult to identify in the construction industry. On average during 2009–2014, 1.1% of about 140,000 construction employers withdrew annually, affecting 11% of the industry’s roughly 700 plans and 57% of its roughly 4 million participants. For other industries, on average 2.5% of roughly 70,000 employers withdrew annually, affecting 27% of about 600 plans and 68% of roughly 6 million participants.

5.4 Impact of Withdrawal

A withdrawing employer is generally assessed withdrawal liability that is typically paid over time. Regulations governing withdrawal liabilities are complex and sometimes vary by industry, with the most significant variations applying to the construction and entertainment industries. In short, assessed withdrawal liability may not represent the unfunded liability attributable to a withdrawing employer. In

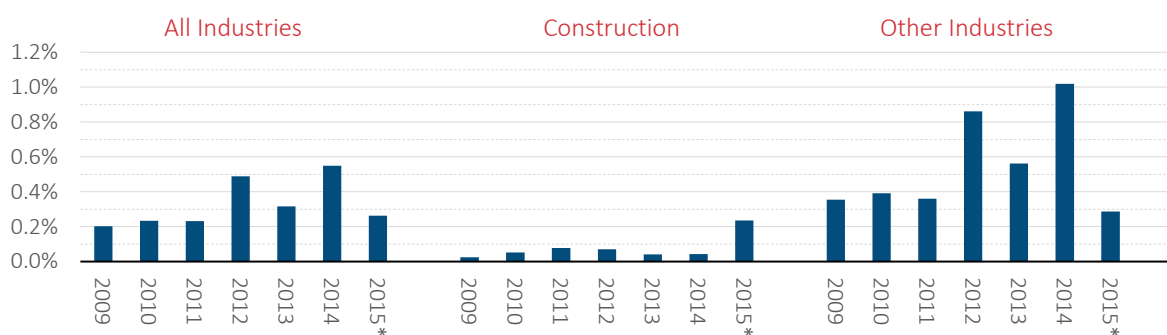
addition, because of statutory and practical limitations, assessed withdrawal liabilities may not be paid in full.¹⁷

When withdrawal liabilities paid do not cover unfunded liabilities attributable to the withdrawn employer, the remaining employers generally bear the burden. In addition, if the plan should become insolvent, Pension Benefit Guaranty Corporation bears part of the burden and often participants bear part of the burden through benefit cuts.

5.5 Withdrawal Liability

Figure 18 shows that the aggregate withdrawal liability assessed is usually a very small portion of MEPP aggregate liabilities. Across all industries, for all years but 2014, aggregate withdrawal liabilities were less than one-half of 1% (0.5%) of liabilities, and 2014 was less than 0.06% of liabilities.¹⁸ If compared to the higher Current Liabilities, the percentages would be markedly smaller.

Figure 18
AGGREGATE ASSESSED WITHDRAWAL LIABILITIES AS A PERCENT OF
AGGREGATE MEPP FUNDING RATE LIABILITIES



* Partial year of reporting; data as of Oct. 28, 2016, represent roughly 50% of plans with 60% of liabilities reporting for 2015.

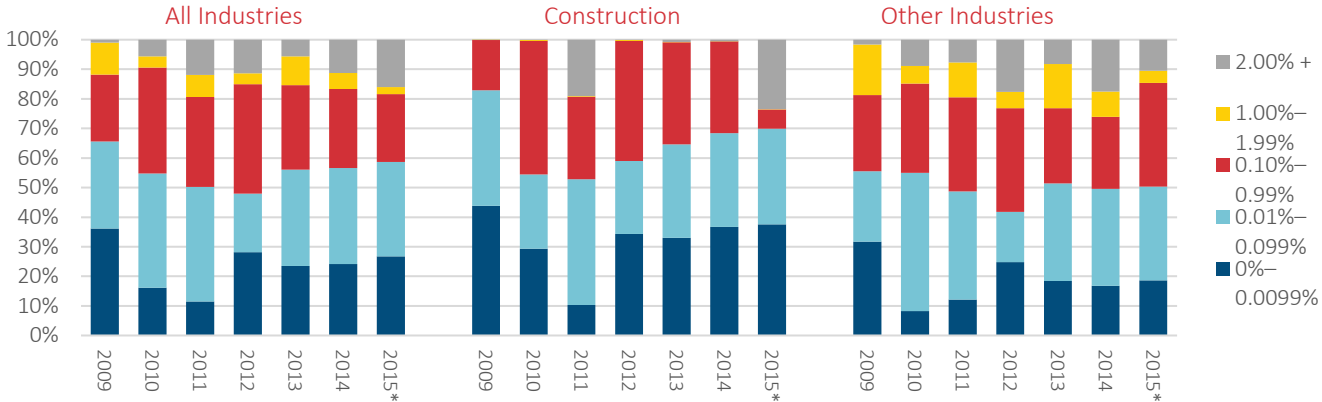
As previously noted, rules for determining withdrawal liabilities are complex and can vary by industry. In addition, because of industry dynamics, withdrawals can be especially difficult to identify in the construction industry. Withdrawal liabilities as a percentage of total liabilities were noticeably smaller for the construction industry than other industries. Aggregate withdrawal liabilities among the construction industry were typically less than one-tenth of 1% (0.1%), although early indications for 2015 look to be an exception.

While Figure 18 focuses on the MEPP system in aggregate, Figure 19 shows the relative magnitude of withdrawal liabilities for plans experiencing withdrawal. Across all industries, at least half of plans were assessed withdrawal liability that was less than one-tenth of one percent (0.10%) of total liabilities measured at funding rates, and fewer than one-fifth of plans were assessed withdrawal liabilities of more than one percent (1.0%) of liabilities.

¹⁷ Withdrawal liabilities are governed by the Employee Retirement Income Security Act §§4201-4225, amended by the Multiemployer Pension Reform Act of 2014.

¹⁸ Plan liabilities are based on the Unit Credit Cost Method and the discount rates used by plan actuaries for funding purposes.

Figure 19
 WITHDRAWAL LIABILITIES AS A PERCENTAGE OF
 UNIT CREDIT LIABILITIES AT FUNDING DISCOUNT RATE
 FOR PLANS EXPERIENCING WITHDRAWAL



* Partial year of reporting; data as of Oct. 28, 2016, represent roughly 50% of plans with 60% of liabilities reporting for 2015.

However, for roughly 10% of the plans, the assessed withdrawal liability exceeded 2% of the plan’s total liability. For a small number of those plans, it exceeded 15% of liabilities.¹⁹

While withdrawal liabilities exceeded 2% of total plan liabilities for only a small percentage of plans, in each year studied, for a handful of plans, withdrawal liabilities exceeded 15% of liabilities valued at the funding discount rate, with a few of those exceeding 30%.

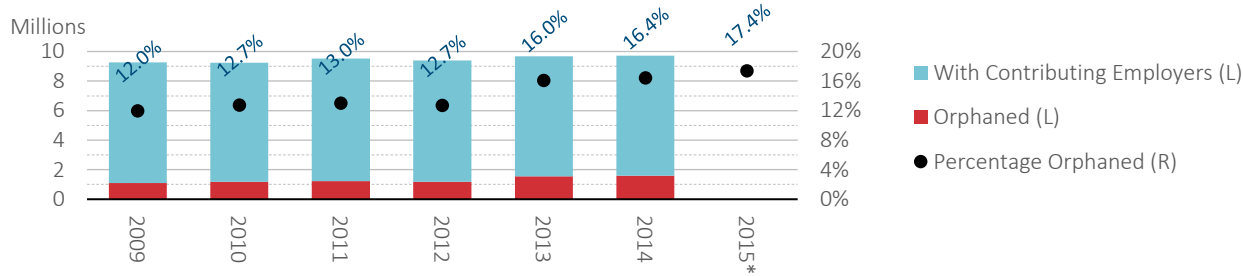
5.6 Orphaned Participants

Participants of withdrawn employers are commonly known as “orphaned” participants. To the extent that withdrawal liability paid does not cover the cost of orphaned participants’ benefits, any remaining funding costs must be borne by the remaining contributing employers and their employees. Identifying orphaned participants can be challenging, especially in some industries such as construction and entertainment. Data presented are as reported on Form 5500; to minimize the impact of industry-specific data challenges, only all-industry data is shown.

Figure 20 on the following page reveals that throughout 2009–2014, the number of orphaned participants increased faster than the total number of participants, and the percentage of orphaned participants across all industries increased from 12% to 16%. Early indications for 2015 suggest a further increase to 17%.

¹⁹ Plan liabilities are based on the Unit Credit Cost Method and the discount rates used by plan actuaries for funding purposes.

Figure 20
 NUMBER AND PERCENTAGE OF ORPHANED PARTICIPANTS—ALL INDUSTRIES

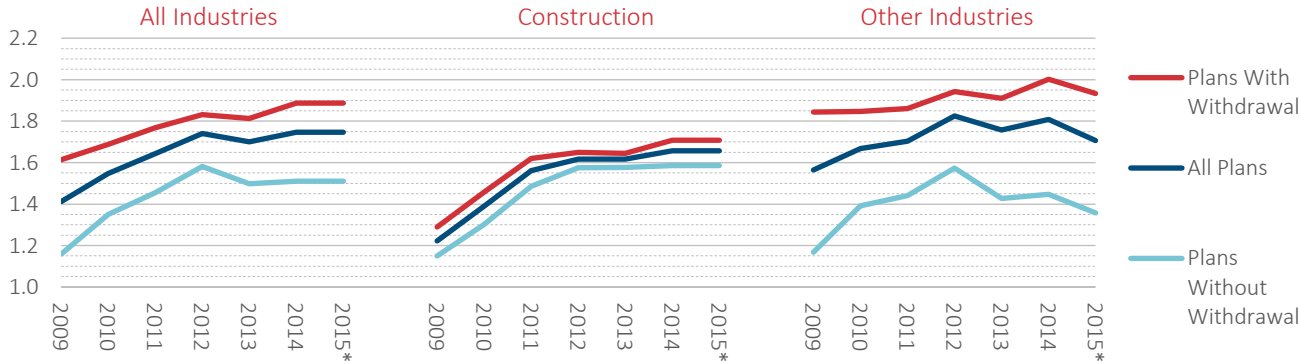


* The graph shows only percentages for 2015 because it is a partial year of reporting; data as of Oct. 28, 2016, represent roughly 50% of plans with roughly 60% of liabilities for 2015.

5.7 Dependency Ratio

Figure 4 illustrates how the MEPP system’s aggregate dependency ratio has increased over recent years. Figure 21 shows that the dependency ratio was consistently and significantly higher among plans experiencing withdrawal in any given year than those not experiencing withdrawal in that year. The disparity increased in recent years, especially among nonconstruction industries. Further, withdrawals tend to increase the dependency ratio, which can exacerbate a plan’s funding challenges.

Figure 21
 AGGREGATE DEPENDENCY RATIO



* Partial year of reporting; data as of Oct. 28, 2016, represent roughly 50% of plans with roughly 60% of liabilities for 2015.

For 2014, the aggregate dependency ratio was 1.9 for plans experiencing withdrawal—26% higher than the corresponding ratio of 1.5 for plans not experiencing withdrawal. Early indications for 2015 show little change from 2014 for construction industries, but a decrease among nonconstruction industries.

6 Data Notes

Analysis is based on publicly available data from the Department of Labor Form 5500 as of Oct. 28, 2016. Data for the 2015 plan year represents roughly 50% of the plans, which have roughly 60% of the liabilities

of the MEPP system. Plans reporting by Oct. 28, 2016 are primarily those with plan years beginning in January.

Other than adjustments for obvious errors, data were used as reported. The use of the reported values is not intended to provide commentary on the appropriateness of the underlying assumptions for funding these plans or any other purpose.

Following are some specific notes about the data:

- For 2014, analysis included 1,199 plans representing 9.7 million participants and approximately 205,000 employers. Many participants participate in more than one plan, and many employers contribute to more than one plan. Data reflected in this article is the sum of counts for each plan.
- Data for the 2008 Schedule MB is missing from the Department of Labor database.
- Criteria for errors and missing data differ slightly from previous analyses, so results for previously published years may differ slightly.

Liabilities for PBC and PBCR are based on Current Liabilities. For values using the discount rate reported for funding purposes, Current Liabilities have been adjusted using assumptions for duration and convexity that were developed to represent the MEPP system as a whole and may not be appropriate for any single plan. Modifications to the assumptions and methods used may result in different numerical outcomes, but the overall conclusions are likely to be similar. Different assumptions and methods may be more appropriate for analysis of a specific plan or small set of plans.

7 Acknowledgments

The author thanks the following volunteers for their arm's-length review of this article. Any opinions expressed may not reflect their opinions nor that of their employers. Any errors belong to the author, not to them:

- Christian E. Benjaminson, FSA, EA, FCA, MAAA
- James B. Dexter, FSA, EA, FCA, MAAA
- Paul B. Dunlap, FSA, EA, FCA, MAAA
- Josh A. Shapiro, FSA, EA, FCA, MAAA

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