



Aging and Retirement

Fast Facts

PBC and PBCR: Two Stress Metrics for U.S. Multiemployer Pension Plans

SUMMARY

The Society of Actuaries (SOA) has developed two metrics for gauging financial stress that result from the combination of unfunded liabilities and declining numbers of active participants: Previous Benefit Cost (PBC) and Previous Benefit Cost Ratio (PBCR).

The PBC represents a plan's annualized cost, per active participant, of the total cost of current benefit accruals, administrative expenses and eliminating its unfunded liability over 15 years.

The PBCR represents the share of a plan's total annualized cost that is attributable to eliminating its unfunded liability over 15 years, where total annualized cost includes the cost of current benefit accruals, administrative expenses and the 15-year amortization of the unfunded liability.

For multiemployer plans in general, both metrics increased from 2015 to 2016, likely because of various economic and demographic factors that varied by plan.

HIGHLIGHTS

- The PBC (annualized per-active-participant cost of eliminating unfunded liabilities over15 years) generally increased from 2015 to 2016. When computing PBCs with funding discount rates, 8% of plans covering 8% of MEPP participants had PBCs of \$20,000 or greater in 2016. This is an increase from 6% of plans covering 7% of participants in 2015.
- At the lower end of the scale, the percentage of plans with PBCs of \$2,000 or less decreased from 40% of plans covering 46% of MEPP participants in 2015 to 34% of plans covering 33% of participants in 2016.
- The PBCR (portion of total pension costs attributable to eliminating unfunded liabilities over 15 years) also increased from 2015 to 2016.
 When computed with funding discount rates, the plan-weighted median PBCR increased from 49% in 2015 to 55% in 2016.
- Over half of MEPP participants were in plans for which the cost of reducing unfunded liabilities exceeded the cost of benefits earned by active participants, and the percentage of such participants increased from 2015 to 2016. The participant-weighted median PBCR increased from 54% in 2015 to 58% in 2016.
- PBCs and PBCRs increased from 2015 to 2016 likely because of a combination of various economic and demographic factors that varied by plan. Some examples of the many potential factors include investment returns, increasing or decreasing numbers of active participants, mortality or longevity among participants, and plan benefit levels.

LINK TO FULL REPORT

PBC and PBCR: Two Stress Metrics for U.S. Multiemployer

Pension Plans https://www.soa.org/research-

reports/2016/2016-multi-pension-plan-stress-metrics/

METHODOLOGY

- Time frame: 1999–2017; the most recent year of complete reporting is for plan years beginning in 2016. In addition, data reflect 2017 reporting for about 55% of plans representing roughly 70% of total multiemployer plan liabilities.
- Computation: PBC and PBCR use the unit credit actuarial cost method and the market value of assets to determine unfunded liability.
- PBC: The sum of the cost of current benefit accruals, administrative expenses and a 15-year level-dollar amortization payment on the unfunded liability is divided by the number of active participants
- PBCR: The 15-year level-dollar amortization payment on the unfunded liability is divided by the sum of the cost of current benefit accruals, administrative expenses and a 15-year level-dollar amortization payment on the unfunded liability.

REPORT SPECS

Published: March 2019

Pages: 12

Access: Downloadable pdf

Research Sponsor: The Society of Actuaries (SOA)

• Authors: Lisa Schilling, FSA, EA, FCA, MAAA, and Patrick Wiese, ASA

- Contents: Introduction and executive summary, previous benefit cost (PBC), previous benefit cost ratio (PBCR), dependency ratio, aggregate liabilities and funded status, data and methods, acknowledgements, 11 figures, and 1 table.
- Data source: Department of Labor database of Form 5500 "Annual Return/Report of Employee Benefit Plan" filing database as of Dec. 6, 2018.



Contribution Analysis for U.S. Multiemployer Pension Plans

https://www.soa.org/resources/researchreports/2016/2016-multiemployer-pensionplan-analysis/

Employer Withdrawal Overview for U.S. Multiemployer Pension Plans

<u>https://www.soa.org/research-reports/2015/2015-multi-employer-plan-withdrawal/</u>

U.S. Multiemployer Pension Plan Pending Insolvencies

<u>https://www.soa.org/research-reports/2018/us-multiemployer-pension-plan/</u>



Lisa Schilling
SOA Retirement Research Actuary

Steven Siegel SOA Research Actuary

Research@soa.org (847) 706-3500