CENTER *for* RETIREMENT RESEARCH *at* BOSTON COLLEGE

August 2014, Number 14-13

PRIVATE SECTOR MULTIEMPLOYER PENSION PLANS – A PRIMER

By Alicia H. Munnell and Jean-Pierre Aubry*

Introduction

Private sector multiemployer pension plans – plans negotiated by a union with a group of employers typically in the same industry – once thought to be secure have now become the focus of concern and congressional interest. These plans, having expanded benefits during the stock market boom in the 1980s and 1990s, became significantly underfunded in the wake of the two financial crises after the turn of the century. In addition, many plans are in industries, such as construction, hurt by the prolonged recession, and most face a shrinking pool of active workers. The great majority of troubled multiemployer plans have responded to the financial pressures by requiring the bargaining parties to negotiate higher contribution rates and some by cutting the rate of future benefit accruals, allowing them to navigate to relatively secure footing. But a significant number of plans, covering at least one million of the 10.4 million participants, could run out of money in the next 20 years.[1] What to do with the severely troubled plans is a subject of great controversy.

This *brief*, the first of four, describes the evolution of multiemployer plans since the 1980s and the nature of the current problems. The second *brief* will look more closely at troubled plans and compare projections from a simple model with published estimates of plans likely to run out of money. The third *brief* will explore the likelihood that participants in troubled plans will find relief from the Pension Benefit Guaranty Corporation (PBGC), which guarantees pension benefits for plans that have exhausted their assets. Given that the PBGC does not have the resources to solve the problem, the fourth *brief* will analyze a controversial proposal to allow plans facing impending insolvency to cut benefits for current retirees to spread the pain among all participants. The first step, however, is to gain some understanding of multiemployer plans – the goal of this *brief*.

The discussion proceeds as follows. The first section describes the nature of multiemployer plans and their role in the retirement income system. The second section presents the evolution of the financial health of these plans and how they have responded to two stock market collapses and the recession. The third section describes the current funded status of these plans under alternative measures used by the U.S. Department of Labor and the PBGC. The fourth section identifies structural challenges facing these plans.[2] The final section concludes that, despite enormous progress made by multiemployer plans to restore their financing, a substantial minority remain in dire condition.

* Alicia H. Munnell is director of the Center for Retirement Research at Boston College (CRR) and the Peter F. Drucker Professor of Management Sciences at Boston College's Carroll School of Management. Jean-Pierre Aubry is assistant director of state and local research at the CRR. The authors wish to thank Dina Bleckman for helpful research assistance. The authors also thank David Blitzstein, David Blumenstein, Cathie G. Eitelberg, Karen Ferguson, Eli Greenblum, Ian Lanoff, Norman Stein, and the staff of the Pension Benefit Guaranty Corporation for helpful comments.

What Are Multiemployer Plans?

Multiemployer defined benefit plans are created by collective bargaining agreements between a labor union and two or more employers. These plans typically exist in industries with many small employers who would not ordinarily establish a defined benefit plan on their own, and where it is common to move from one employer to another. Most participants are covered by relatively few large plans (10,000+ participants), but the system also has many small plans (less than 1,000 participants) (see Table 1).

Table 1. Distribution of Multiemployer Plans and Participants, 2012

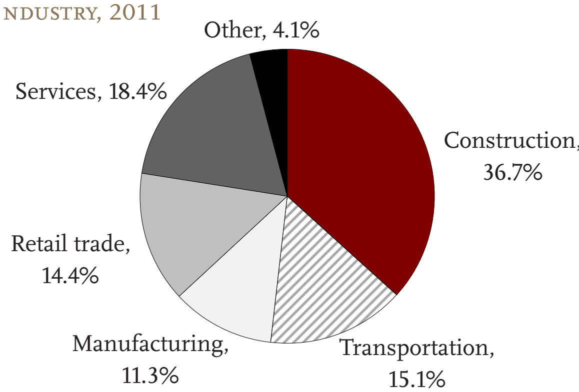
Plan size (number of participants)	Percentage of total participants	Number of: Plans	Number of: Employers per plan
Large (10,000 or more)	77%	170	738
Medium (1,000-9999)	20	665	114
Small (fewer than 1,000)	3	578	29
Total	100	1,413	154

Source: Unpublished data from the Pension Benefit Guaranty Corporation (James 2014).

Multiemployer plans are found throughout the economy in highly unionized industries (see Figure 1). Almost 40 percent of multiemployer participants work in construction; construction plans generally rely on a large number of small contributing employers. About 15 percent of all multiemployer participants are in the transportation industry and covered by Teamsters plans, which tend to be among the largest plans (see Appendix). Other industries in which multiemployer plans operate include retail food, health care, entertainment, print media, communications, printing, and mining.

Multiemployer plans are typically set up as trusts, as required by the Taft-Hartley Act and the Employee Retirement Income Security Act of 1974 (ERISA), and managed by a board of trustees appointed in equal numbers by the union and the employers. The trustees, as plan fiduciaries under ERISA, have responsibility for managing the assets and administering the benefits.

Figure 1. Multiemployer Plan Participants by Industry, 2011



Source: Pension Benefit Guaranty Corporation (2013).

The contributions to the plan are negotiated in the bargaining agreements between an employer and its union. A typical amount might be $5 for each hour that a participant works. The trustees then, working with a given revenue stream, set the benefits.

Multiemployer plans have a different benefit structure than traditional single employer defined benefit plans. Single employer plans historically provided workers with a percentage of final salary for each year of service, say 1.5 percent, so workers with 30 years of service would receive 45 percent of final salary for as long as they live. The benefits under a multiemployer plan are rarely based on salary. Instead, multiemployer plans generally pay a dollar amount per month for each year of service, say $60, so a worker with 30 years of service would receive $1800 a month at age 65 for life.[3] Moreover, unlike traditional plans, multiemployer plans offer portability – participants retain service if they move from one sponsoring employer to another.[4]

Table 2 on the next page compares multiemployer plans to other components of the employer-sponsored retirement system. Several factors stand out. First, multiemployer plans have 10.4 million participants, so they are a sizable segment of the retirement system. Second, these plans (as well as single employer defined benefit plans) differ from state and local plans in terms of maturity: they have fewer active relative to total participants. Third, multiemployer plans have modest assets – 40 percent as many participants as state/local plans but only 15 percent of the assets. Fourth, average benefits are roughly half of those in the state/local sector and about 80 percent of those

Table 2. Multiemployer Plans in the Employer-Sponsored Retirement System, 2011

Plan type	Participants		Plans	Assets (trillions)		Average benefit
	Total (millions)	Active/total		Total	Per participant	
Private DC	84.3	83%	637,100	$3.7	$43,400	NA
Private single employer DB	30.4	40	43,800	2.1	67,400	$15,700
State/local DB	28.6	50	3,500	3.1	106,700	25,400
Multiemployer	10.4	40	1,400	0.5	44,600	12,600

Sources: Authors' calculations from U.S. Department of Labor (2013); and U.S. Census Bureau (2012).

provided by single employer defined benefit plans.[5] Finally, the multiemployer system consists of relatively few plans – about 1400.

Changing Finances of Multiemployer Plans, 1980 to Present

Multiemployer plans thrived during the 1980s and 1990s; the stock market soared, participants had plenty of work, and employers were making good profits. By the late 1990s, many plans were fully funded, but unions did not want to interrupt the flow of contributions because restarting the contributions when markets cooled would require reducing other components of compensation.[6] The downside of the reluctance to cut contributions is that plans repeatedly increased benefits in order to ensure that contributions remained tax deductible for employers.

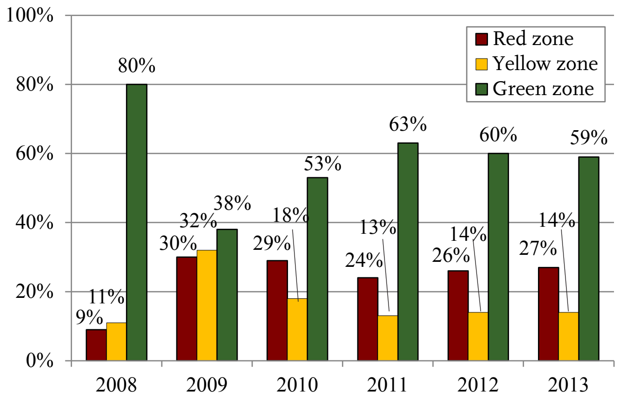
The good times ended with the bursting of the dot.com bubble in 2000. All pension plans were hurt, but the collapse of stock prices was particularly painful for multiemployer plans, which – with many retirees and declining numbers of active participants – had been living off investment returns.[7] As the returns turned to losses, funded levels plummeted.

Although by 2004 multiemployer plans appeared to have weathered the storm, the multiemployer plan community worked with Congress to update funding rules.[8] This effort culminated in the Pension Protection Act of 2006 (PPA), the key innovation of which was to require trustees to look past valuations on a single date and assess where the plan is headed. Plans with a projected funding deficiency within four or five years or near-term cash flow problem are deemed "critical;" those with less serious problems are "endangered." Critical plans are characterized as being in the red zone, endangered plans in the yellow zone, and all other plans in the green zone. Plans in the critical or endangered categories must take corrective action. The law also provided multiemployer plans with new tools to achieve these goals.

When a plan goes into the yellow zone, the PPA restricts contribution reductions and benefit increases and requires that the trustees come up with changes to close the funding gap by at least one third over a 10-year period. When a plan goes into the red zone, in addition to restrictions on contribution cuts and benefit increases, the plan must stop paying lump sums or other front-loaded benefits to new retirees and devise corrective actions to get out of the red zone within a 10-year period. Under such a scheme, the trustees can cut benefits for current workers that are usually protected from cutbacks – so-called 'adjustable benefits,' such as recent benefit increases, early retirement subsidies, and other benefit features.[9]

In 2008, when the PPA first took effect and before the financial crisis, data for a sample of one quarter of multiemployer plans show that 80 percent of plans were in the green zone, 11 percent in the yellow zone, and 9 percent in the red zone (see Figure 2 on the next page).[10] In many cases, for plans in the yellow zone, changes already made were projected to carry them out of the zone within the allotted time.[11]

Figure 2. Sample of Multiemployer Plans by Zone Status, 2008-13



Note: More than 350 plans are represented in all six surveys.
Source: Segal Consulting (2014).

Then the markets crashed and the economy tanked, causing unfunded liabilities to spike and the number of troubled plans to soar. The post-crisis zone count can be measured in two ways: 1) the classification as designated by the actuaries; and 2) the official classification that reflects the trustees' ability to freeze at their previous year's classification under relief legislation passed in 2008.[12] Figure 2 shows the actuaries' count.

As the economy and the stock market began to recover, a large share of multiemployer plans moved from the yellow zone back to the green, but the share in the red zone declined only slightly. This should not be surprising. The plans in the red zone faced possible insolvency in the next 10 years, an outlook that does not change materially with an uptick in stock prices. Moreover, the recession that followed the financial crisis sharply reduced the availability of work for participants in some troubled plans, particularly in the construction industry where the recovery has been very slow.

The severity of problems within the red zone varies a lot.[13] In 2010, roughly 65 percent of plans have programs that should enable them to exit within the 10-year period; about 10 percent expect to emerge from the red zone over a longer period, and about 25 percent have basically given up and are trying to forestall insolvency, which would require the reduction of benefits to PBGC-guaranteed levels.[14] A more recent study by the U.S. Government Accountability Office suggests a similar percentage have given up.[15] These plans tend to be in shrinking industries – printing/newspapers, transportation, manufacturing, entertainment (movie theaters) – or those seriously hurt by the recession, such as construction. Essentially, the plans that have given up contend that they have cut benefits to the bone and raised contributions dramatically and that additional contribution increases would threaten the employers' competitiveness and additional benefit reductions would diminish support among workers.

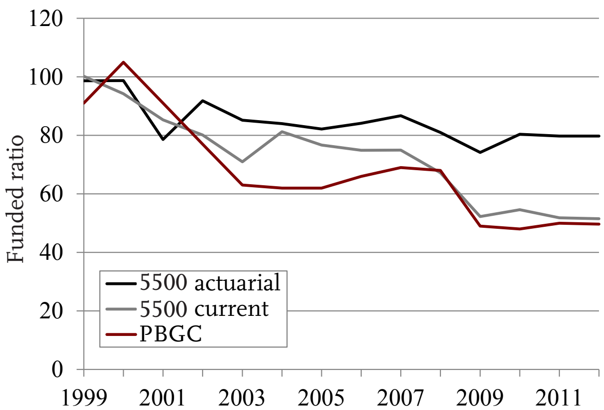
The Funded Status of Multiemployer Plans

Before the Pension Protection Act of 2006, both single and multiemployer plans had considerable flexibility with regard to funding; the legislation eliminated most of the discretion for single employer plans because of the perceived risks associated with having a sole sponsor. Single employer plans must now use specified mortality tables and interest rate assumptions (based on the investment grade corporate bond yield curve) and value assets at close to market value. And they must amortize liabilities over seven years.

In contrast, multiemployer plans still, for reporting purposes, can use a broad array of assumptions and methods as well as smoothed assets. These plans – like state and local government plans – discount benefit promises by relatively high expected returns – 7.5 percent or more.[16] Multiemployer plans also enjoy longer amortization periods than single employer plans, although these periods have been reduced by the PPA.[17] The thinking was that multiemployer plans need a longer period for funding because contribution rates are fixed for the duration of the contract and the risks of longer funding would be offset by the pooling of employer contributions and assets.

Three sets of funded ratios are available for multiemployer plans – two from the U.S. Department of Labor's (DOL) Form 5500 and one adjusted for PBGC assumptions (see Figure 3 on the next page). The DOL Form 5500 presents both a current view and an actuarial smoothed view. The differences between the two are the valuation of assets and the interest rate used to calculate liabilities. The actuarial view averages asset values over a period of time and uses the expected return on plan assets as the discount rate. The current view is based on the market value of plan assets and a liability calculated using a four-year average yield on 30-year Treasuries as the discount rate. The PBGC number is also based on the reported market value of assets, but adjusts the reported vested liabilities using a standardized interest rate factor along with an assumed mortality table that reflects the cost of purchasing an annuity at the beginning of the year. Regardless of the definition, multiemployer plans were well funded during the 1990s, and then saw their funded levels collapse in the wake of two financial crises.

Figure 3. Funded Status of Multiemployer Plans under Various Definitions, 1999-2012



Sources: Pension Benefit Guaranty Corporation (2013; and authors' calculations from U.S. Department of Labor, *Form 5500* (1999-2012).

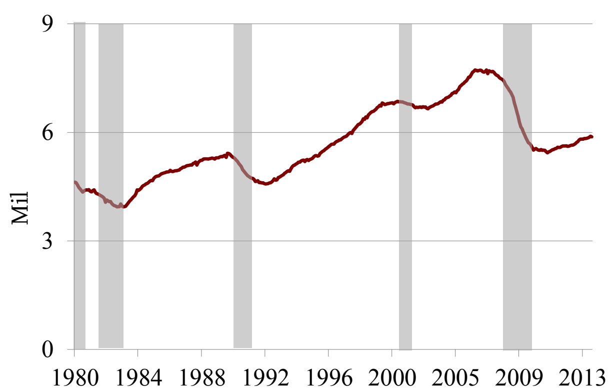
Structural Challenges with Multiemployer Plans

Overall, the funded status of multiemployer plans is very close to that of state and local plans, using similar assumptions. But multiemployer plans face three structural challenges that state and local plans do not. First, the construction industry, which supports the largest component of multiemployer participants, is highly cyclical. Second, the lack of new entrants leads to a very high ratio of retirees to workers. Third, withdrawal liability – the payments required when an employer exits a plan – is often inadequate so that "orphaned" participants – those left behind when employers exit – create a burden for remaining employers.

Cyclical Nature of Construction

Construction, which accounts for about 40 percent of the multiemployer participants and 55 percent of all plans, is highly cyclical. As shown in Figure 4, construction employment always dips sharply during recessions (as shown by the shaded areas). The most recent recession and ensuing slow recovery hit the construction trades particularly hard: employment dropped from 7.5 million at the economic peak in 2007 to 5.6 million by 2010 and has been recovering only slowly since then. Less work means lower employer contributions.[18] For a fully funded plan, such a reduction in contributions would not be an issue, because less work also means less accrued benefits for plan participants. But for a financially troubled plan, the contributions for each active worker exceed the costs of the worker's future benefits as they also cover a portion of the unfunded liability.

Figure 4. Construction Employment over the Business Cycle, 1980-2013



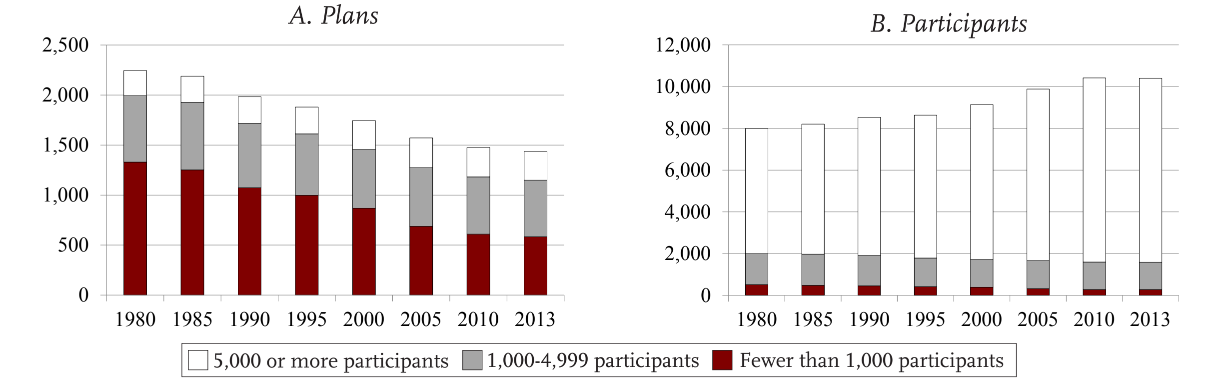
Sources: U.S. Census Bureau, *Current Population Survey* (1980-2013); and National Bureau of Economic Research (2014).

Few Active Workers

The number of multiemployer plans has contracted over the last three decades due to mergers, and the number of participants has increased only slightly (see Figure 5 on the next page). The reason is twofold. First, unions are prime movers behind multiemployer plans, and union membership in the private sector has declined from 22 percent of workers in 1980 to 8 percent in 2013 – a very different pattern from that in the state and local sector (see Figure 6 on the next page). Second, many of the industries where multiemployer plans exist, such as manufacturing, have declined.

These trends are unlikely to reverse. First, employers negotiating collective bargaining agreements are now reluctant to enter multiemployer plans,

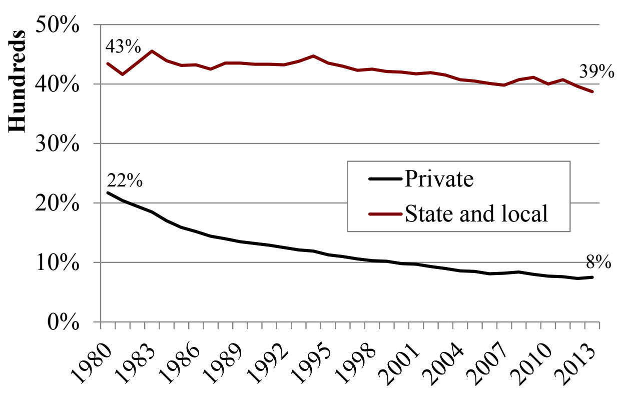
Figure 5. Number of Multiemployer Plans and Plan Participants by Size of Plan, 1980-2013



Source: Pension Benefit Guaranty Corporation (2013).

because they effectively are assuming some portion of the plan's unfunded liability. Even if the plan is currently fully funded, they expose themselves to future expense if market conditions deteriorate and the plan becomes underfunded as a result. And, second, some employers are strategically negotiating withdrawals, based on the conclusion that the plan will eventually become insolvent and it is better to withdraw now before liabilities increase.

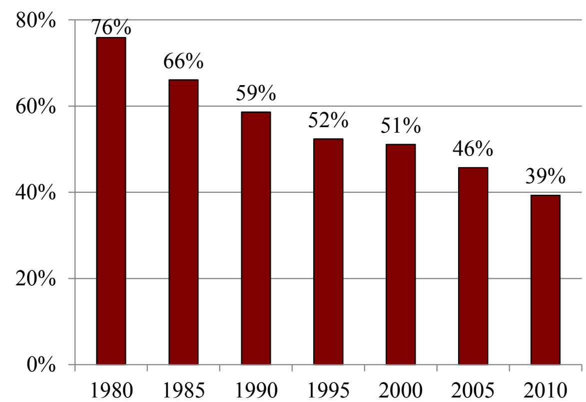
Figure 6. Percent of Wage and Salary Workers in Unions, 1980-2013



Source: Hirsch and Macpherson (1980-2013).

The lack of new blood has led to the rapid maturation of these plans. Multiemployer plans now have a large number of older participants, who have accumulated substantial benefits under the plan and are either retired or close to retired, and a much smaller number of younger workers (see Figure 7). These mature plans are much more vulnerable to financial losses.

Figure 7. Active Workers as a Percent of Total Participants in Multiemployer Plans, 1980-2010



Source: Solis, Geithner, and Gotbaum (2013).

Inadequate Withdrawal Liabilities and Burden of Orphan Workers

Employers who participate in multiemployer plans are allowed to exit the plan at any time (subject to collective bargaining obligations). In this case, their orphan workers no longer accrue benefits, but are entitled to vested benefits earned to date. To ensure the payment of benefits to these workers, the law requires exiting employers to pay a withdrawal liability to cover their share of the plan's underfunding (if any).

The system, however, has serious limitations and often leaves the remaining employers burdened. First, up to 2000, when plans were typically fully funded, withdrawing employers did not face any liability when they left, even though financial markets collapsed shortly thereafter. Second, in situations where unfunded liabilities did exist, collections could be minimal if exits were due to bankruptcies. Third, even in the absence of bankruptcy, the calculation may not capture the employer's full liabilities because it is based on past contributions rather than attributed liabilities.[19] Fourth, the law places a 20-year cap on employer liability payments. Finally, special rules allow, under certain circumstances, employers in the construction and entertainment industries to avoid any withdrawal liability.[20] To the extent that withdrawing employers do not pay enough to cover the full cost of their workers who remain in the plan, the burden falls to the remaining employers.

Orphan participants constitute a significant share of total multiemployer participants. In 2010, a group of 400 plans reported having 1.3 million orphan participants out of 6.7 million total participants – roughly 20 percent. Not surprisingly, orphans are a much larger share of total participants for plans in the red and yellow zones than for those in the green zone.[21]

Conclusion

Multiemployer plans are a significant component of the employer-sponsored retirement system and, like other employer plans, have been challenged by the twin financial crises since 2000. While the majority of multiemployer plans are returning to financial health, a substantial minority faces serious funding problems that are exacerbated by unique structural challenges facing this sector. These challenges include the cyclical nature of the construction industry (which accounts for a plurality of plan participants), a low ratio of active to total participants that increases the burden on underfunded plans, and withdrawal penalties for exiting companies that are insufficient to cover the costs they leave behind.

The purpose of this *brief* was to provide a sense of the overall landscape and trends affecting multiemployer plans. Subsequent *briefs* will probe more deeply into the nature of the problems facing underfunded plans, assess the potential for the PBGC to protect workers in multiemployer plans, and evaluate proposed solutions.

Endnotes

1 Pension Benefit Guaranty Corporation (2014).

2 Defrehn and Shapiro (2013).

3 Alternatively, benefits could be a specified percentage of the employer's required contributions. For example, a monthly benefit could be set at 2 percent of total required contributions, so that a participant with 1,500 hours of work at a $2 hourly contribution rate would accrue $60 of monthly benefits. Some multiemployer plans have different benefits for different years, which reflect changes in the benefit formula over time.

4 Further, many plans maintain reciprocity agreements by which participants can aggregate service under multiple plans to qualify for benefits.

5 The average benefit is total benefits divided by the number of participants.

6 Mazo and Greenblum (2012).

7 Solis, Geithner, and Gotbaum (2013).

8 Mazo and Greenblum (2012).

9 If the trustees determine that, after adopting all reasonable measures, they will not be able to recover in the statutory period, they must adopt a program that may take longer but is likely to work. If they believe that they cannot reasonably turn the situation around, they must design a plan to forestall insolvency.

10 We used data from Segal Consulting, an actuarial consulting firm, because Segal provides more recent information than the Department of Labor (DOL) or the PBGC. The data for Segal clients – about 25 percent of all multiemployer plans – look very much like those for the DOL/PBGC universe of multiemployer plans in earlier years.

11 Mazo and Greenblum (2012).

12 Worker, Retiree and Employer Recovery Act of 2008.

13 Mazo and Greenblum (2012).

14 Mazo and Greenblum (2012).

15 U.S. Government Accountability Office (2013).

16 Solis, Geithner, and Gotbaum (2013).

17 Before the PPA, increases in liabilities from providing benefit increases retroactively could be amortized over 30 or 40 years; gains and losses from changes in actuarial assumptions over 30 years; and experience gains and losses over 15 years. The PPA shortened the amortization periods for all types of unfunded liabilities that arise after 2008 to 15 years; earlier liabilities can still be amortized over extended periods. To help ease the burden experienced during the financial crisis, the Pension Relief Act of 2010 lengthened the amortization period to 29 years for the portion of any experience gain or loss attributable to net investment losses incurred in 2008-2009. In addition, during the same period, the Act allowed plans to smooth assets over 10 years, rather than five years.

18 Some multiemployer plans have reported employment declines of 30 percent or more.

19 In addition, plans have the option to calculate an employer's withdrawal liability using the plan's funding rate, typically 7.5 percent, which may be fine for an ongoing plan but too high for a termination liability.

20 In the case of plans operating in the construction or entertainment industries, an employer is not required to pay a withdrawal liability if the employer is no longer obligated to contribute under the plan and ceases to operate within the jurisdiction of the collective bargaining agreement (or plan) or does not resume operations within five years without renewing its obligation to contribute. Slightly different rules apply to the trucking, household goods moving, and public warehousing industries and – for partial withdrawal – to the retail food industry. See McMurdy (2009).

21 Solis, Geithner, and Gotbaum (2013).

References

Defrehn, Randy G. and Joshua Shapiro. 2013. "Solutions not Bailouts: A Comprehensive Plan from Business and Labor to Safeguard Multiemployer Retirement Security, Protect Taxpayers and Spur Economic Growth." Washington, DC: National Coordinating Committee for Multiemployer Plans.

Hirsch, Barry T. and David A. Macpherson. 1980-2013. "Union Membership and Coverage Database." Available at: http://www.unionstats.com.

James, William. 2014. Personal communication. Unpublished data from the Pension Benefit Guaranty Corporation.

Mazo, Judith F. and Eli Greenblum. 2012. "Multiemployer Pension Plans Respond to the Financial Crisis." In *Reshaping Retirement Security*, eds. Raimond Maurer, Olivia S. Mitchell, and Mark J. Warshawsky. Oxford, United Kingdom: Oxford University Press.

McMurdy, Keith R. 2009. "Multiemployer Withdrawal Liability: Understanding the Basics." Philadelphia, PA: Fox Rothschild LLP.

National Bureau of Economic Research. 2014. "US Business Cycle Expansions and Contractions." Cambridge, MA.

Pension Benefit Guaranty Corporation. 2013. "Data Book Listings." Washington, DC. Available at: http://www.pbgc.gov/documents/2012-Data-Book-Tables.pdf.

Pension Benefit Guaranty Corporation. 2014. "FY 2013 PBGC Projections Report." Washington, DC.

Segal Consulting. 2014. "Survey of Plans' 2013 Zone Status." *Benefits, Compensation, and HR Consulting* (Winter 2014). New York, NY.

Solis, Hilda L., Timothy F. Geithner, and Joshua Gotbaum. 2013. "Multiemployer Pension Plans: Report to Congress Required by the Pension Protection Act of 2006." Washington, DC.

U.S. Census Bureau. 2012. *Survey of Public Pensions: State- and Locally-Administered Defined Benefit Data*. Washington, DC.

U.S. Census Bureau. *Current Population Survey*, 1980-2013. Washington, DC.

U.S. Department of Labor, Pension and Welfare Benefits Administration, Office of Policy and Research. 2013. *Private Pension Plan Bulletin Historical Tables and Graphs*. Washington, DC.

U.S. Department of Labor, Pension and Welfare Benefits Administration, Office of Policy and Research. *Form 5500*, 1999-2012. Washington, DC.

U.S. Government Accountability Office. 2013. "Private Pensions: Timely Action Needed to Address Impending Multiemployer Plan Insolvencies." Report No. GAO-13-240. Washington, DC.

APPENDIX

Table 1. Ten Largest Multiemployer Plans, by Number of Participants, 2012

Plan name	Participants	Funded ratio		Industry	Zone status
		Actuarial	Current		
Western Conference of Teamsters Pension Plan	576,103	90.4	57.0	Transportation	Green
National Electrical Benefit Fund	491,919	84.9	44.2	Construction	Green
Pension Plan of the UNITE HERE National Retirement Fund	415,067	67.0	37.6	Finance/ insurance	Green
Central States, Southeast & Southwest Areas Pension Plan	411,238	53.9	35.2	Transportation	Red
I.A.M. National Pension Plan	265,258	104.4	56.4	Manufacturing	Green
1199 SEIU Health Care Employees Pension Fund	235,195	89.6	46.1	Health care and social assistance	Green
UFCW International Union-Industry Pension Fund	220,154	108.2	62.5	Services	Green
UFCW Consolidated Pension Fund	184,724	88.8	45.8	Services	Green
Central Pension Fund of the IUOE & Participating Employers	182,289	87.8	46.2	Finance/ insurance	Green
Southern California UFCW Unions & Food Employers Joint Pension Trust Fund	167,840	75.6	43.5	Services	Red

Source: Authors' calculations from U.S. Department of Labor, *Form 5500* (2012).

CENTER *for*
RETIREMENT
RESEARCH
at BOSTON COLLEGE

About the Center

The mission of the Center for Retirement Research at Boston College is to produce first-class research and educational tools and forge a strong link between the academic community and decision-makers in the public and private sectors around an issue of critical importance to the nation's future. To achieve this mission, the Center sponsors a wide variety of research projects, transmits new findings to a broad audience, trains new scholars, and broadens access to valuable data sources. Since its inception in 1998, the Center has established a reputation as an authoritative source of information on all major aspects of the retirement income debate.

Affiliated Institutions

The Brookings Institution
Massachusetts Institute of Technology
Syracuse University
Urban Institute

Contact Information

Center for Retirement Research
Boston College
Hovey House
140 Commonwealth Avenue
Chestnut Hill, MA 02467-3808
Phone: (617) 552-1762
Fax: (617) 552-0191
E-mail: crr@bc.edu
Website: http://crr.bc.edu

The Center for Retirement Research thanks Alert1 Medical Alert Systems, Charles Schwab & Co. Inc., Citigroup, ClearPoint Credit Counseling Solutions, Fidelity & Guaranty Life, Goldman Sachs, Mercer, National Council on Aging, Prudential Financial, Security 1 Lending, State Street, TIAA-CREF Institute, and USAA for support of this project.

The research reported herein was supported by the Center's Partnership Program. The findings and conclusions expressed are solely those of the authors and do not represent the views or policy of the partners or the Center for Retirement Research at Boston College.