



9-1-2001

Delinking Benefits from a Single Employer: Alternative Multiemployer Models

Teresa Ghilarducci
University of Notre Dame

Follow this and additional works at: https://repository.upenn.edu/prc_papers



Part of the [Economics Commons](#)

Ghilarducci, Teresa, "Delinking Benefits from a Single Employer: Alternative Multiemployer Models" (2001). *Wharton Pension Research Council Working Papers*. 475.

https://repository.upenn.edu/prc_papers/475

The published version of this Working Paper may be found in the 2003 publication: *Benefits for the Workplace of the Future*.

This paper is posted at ScholarlyCommons. https://repository.upenn.edu/prc_papers/475
For more information, please contact repository@pobox.upenn.edu.

Delinking Benefits from a Single Employer: Alternative Multiemployer Models

Disciplines

Economics

Comments

The published version of this Working Paper may be found in the 2003 publication: *Benefits for the Workplace of the Future*.

Chapter 13

Delinking Benefits from a Single Employer: Alternative Multiemployer Models

Teresa Ghilarducci

The United States is unique among developed nations in depending heavily on the provision of social insurance through the employment relationship. That is, the employment nexus is the focus of provision in this country for health and life insurance, disability coverage, retirement benefits, and numerous other programs that, in other developed countries, are often provided at the government level. As a consequence of this country's unique approach, most analysis of the employee benefit environment has focused on how and why a particular employer offers work-based health, pension, and other programs. To date, however, there have been very few studies on alternative modes of benefit provision in the United States, including voluntarily provided employee benefit plans that span employers.

In this chapter we explore multiemployer pension plans in the United States, examining what they do and how they function. A first section assesses the historical development of these plans in the United States, while a second section traces the scope and special features of these multiemployer plans. We next turn to the developments in the employer-provided benefit paradigm. Finally we ask whether a multiemployer format might be general enough to be able to provide coverage to the substantial fraction of workers lacking employment-based pension plans in this country at present, and what role multiemployer plans might play in years to come.

A Brief History of U.S. Multiemployer Pension Plans

Most multiemployer plans in the United States are of the defined benefit (DB) variety. Thus in a typical multiemployer plan, the benefit formula is based on service times a percentage of final salary, much like the final pay-based single employer defined benefit plans. The replacement rate for a

Delinking Benefits from a Single Employer 261

twenty-five-year employee depends very much on the industry that the worker was in. A short freight driver in the trucking sector could receive \$1,700 per month from his pension, just under his social security benefit and hence equal to almost one-half of his retirement income.

What is unique about multiemployer plans is their diversity. They generally cover many occupations in one industry, one craft in many industries, or many occupations in one industry. Examples of industry-wide, geographically based pension plans in the United States include the United Food and Commercial Workers fund in Northern California, which negotiates pensions and health insurance across a number of large employers including Safeway and other grocery stores. The International Ladies Garment Workers Union and Amalgamated Clothing and Textile Workers Funds cover production workers across a range of employers in the needle trades. Taking a broader perspective, the Sheet Metal Workers, Bricklayers, Carpenters, and other building trades funds cover particular trades operating across a wide range of diverse industries. The Western Conference of Teamsters pension plan covers many occupations in several industries in the thirteen western states — grocery delivery drivers, warehouse workers, and long-haul freight truckers.

Early Developments

During the historical development of union-initiated and jointly agreed upon multiemployer pension plans in the United States, several issues became salient. In the 1880s, labor unions began as “mutual aid” societies, with their major function the collection of funds from members in order to provide collective goods such as funeral benefits. The concept of linking contributions directly to payroll was an extension of this concept of self-help.

The Brotherhood of Electrical Workers and Electrical Contractors (Local 3) of New York was probably the first union to establish a multiemployer pension plan, in 1929 (EBRI 1997). However, this was not an auspicious time since many pension plans disappeared during the Depression due to poor funding records. Other negotiated multiemployer plans were established in the needle trades and in coal mining, and in these industries, unions alone controlled their administration during this early period.

An important legislative innovation in the multiemployer pension business was put in place in 1947, with the Taft-Hartley amendments to the National Labor Relations Act (sec. 302c.5.). Under this regulation, employers sponsoring a multiemployer plan were required to have at least the same number of trustees on the pension boards, as did the union. This bill was initially opposed by organized labor, and to effect passage, Congress was forced to override President Truman’s veto.

Many of the regulations passed under the Taft-Hartley amendments were

262 Teresa Ghilarducci

intended to limit union control over the pension assets. These included prohibitions restricting employers from paying pension contributions directly to union leaders, rules holding pension trustees liable for pension decisions, and requirements that rules be applied equitably regarding both employers and workers. Though these regulations were often decried by the labor movement, they provided legitimacy and ultimately substantial strength to multi-employer plans.

While the United Mine Workers of America (UMWA) was not the first group to negotiate pensions in the United States, it greatly helped define the role that unions would have in establishing workplace pensions in years following the Great Depression.¹ Declining coal demand and automation of these dangerous debilitating jobs caused substantial worker displacement during this time. In 1945, the UMWA demanded a fully employer-paid, \$100 per month, pension for old and retiring miners, characterizing the demand as “payment for past service.” Instead of arguing that pensions were a type of deferred wage (payment for services rendered) that had to be accumulated before paying out a benefit, the UMWA (and many other industrial CIO unions afterward) argued that pensions were depreciation payments owed to labor and were analogous to employers’ accounting for capital depreciation (Sass 1997). In this light, pensions could be seen as complements to, rather than substitutes for, higher wages.

The UMWA demanded employer-paid pensions, but plan origins dictated that the coal miners’ plan be jointly trusteeed with the employers of these constituencies. In the 1940s President Truman delegated his Secretary of Interior to mediate the negotiations in the key coal industry, and he encouraged the relatively weak employers in this vital industry to settle with the powerful union.

Joint pension investment administration was initially not a hotly contested issue because the plans were operated on a pay-as-you go basis — that is, contributions collected were immediately paid out in benefits rather than investing the monies in a trust fund. Coal plan liabilities grew quickly over time as miners lost jobs during the Great Depression. The union negotiated for and won a doubling of the royalties per ton that financed the pension during the period 1948–52. President John L. Lewis argued that employers should share the benefits of automation since workers paid the costs. In an under-appreciated development, the UMWA pension plan negotiated a new funding base where contributions were structured as a function of tonnage mined per hour rather than work hours. This formula explicitly shared the benefits of greater productivity with the workers.

The industrial unions in the rubber, steel, and auto industries were also concerned with bargaining for employer-paid pensions to be paid immediately to current retirees and older workers. As a result, they concentrated on immediate payouts, rather than on building up a stock of assets in a funded plan. These unions did not argue for payments based on productivity nor

Delinking Benefits from a Single Employer 263

did they bargain for control of the pension fund investments; in fact weaker industrial unions in a sense gave up control of the fund in exchange for past service credits.

Over this period employers resisted including pensions in collective agreements, but at the same time, pensions became increasingly important personnel and tax reduction tools. The tax incentive was expanded during World War II, with wartime wage/price control policies encouraging companies to boost employee benefits rather than wages. Many economists also argue that tax-favored status of pensions is an important incentive for employers to provide pensions on the margin (Reagan and Turner 2000). Pensions, health insurance, vacation, and other so-called “fringe benefits” were at that time deemed non-inflationary, and thus they were exempted from wage controls. Furthermore, profits spent on benefits were not subject to the World War II and Korean excess profits tax. In the three decades preceding World War II, the U.S. employer-based benefit system grew to cover two-thirds of the working population for health insurance, and one-half of the working population for pensions. Tax incentives made employer expenses for qualified employee benefits tax-deductible, and as explained above, the labor movement promoted the creation of health insurance and retirement programs at the company and industry level in the 1930s and 1940s. Nonunion companies frequently matched the benefit offerings provided in the union sector in order to remain competitive and thwart unionization efforts.

During this period, many employers agreed to provide employee benefits to attract scarce workers and sometimes to accede to union demands. But social expectations led to the belief that employer benefits were needed to supplement the incipient social security program. Pensions also helped employers manage skill supply and quality in dynamic industries such as construction.

More Recent Developments

The growth in benefit coverage in the United States continued into the late 1970s, but after that something seems to have changed. Pension coverage rates in particular stagnated, and have remained fixed at approximately 50 percent of the workforce. It has been argued that the continuing decline of unions, and the effectiveness of tax incentives available in individual-based group insurance solutions might explain why employee benefit coverage has stopped growing (Schiller 2000). Today some groups in society lack pension coverage, and part of the explanation may be barriers to entry to primary labor markets. About half of male workers today are covered by pensions but only 44 percent of women, 43 percent of Black workers, and 30 percent of Hispanic workers. In addition, the growth of casual labor markets in all industries, especially in fast-growing services and retail trade,

264 Teresa Ghilarducci

may threaten pension coverage. Part-time and low-wage workers are disproportionately less likely to have private benefits as are those in small and medium-size companies. Approximately 90 percent of public sector workers are covered by pensions today, but coverage rates in the private sector go as low as 30 percent and 35 percent in personal and business services and are close to zero in nonunion construction and trade jobs (EBRI 1997).

In our view, coverage gaps in employee benefits track and in fact accentuate the growing inequality in earnings experienced in the United States over the last decade. Some have argued that these gaps may be mainly attributable to worker choices (examples of studies that emphasize employee pension preferences include Goodfellow and Schieber 1993 and Ippolito 1998). Others contend that declining coverage trends reflect employer decisions not to offer plans in view of the rise of what might be termed the “individual responsibility” model. However it is at least possible that multi-employer plans might make it easier for employers to offer benefits that they could not within the single-employer framework. This is mainly because the national social security system, which is national, uniform, and mandatory, cannot be tailored to the needs of particular industries and regions. Single-employer plans cannot accomplish this either in this era, since long service with one employer is not technically practical for many firms. Moreover, even where it is technically possible, workers and firms appear not to want to form such traditional long-term commitments to each other (see Riche this volume; Camden this volume). An alternative model may be better suited to this new environment.

Other Multiemployer Pension Frameworks

Multiemployer pensions are found in sectors other than the private sector: in addition, there are also multiemployer systems in the public and not-for-profit arenas including those established for churches, the Red Cross, charities, and, of course, university and college teachers. There are also hundreds of pension plans covering public sector workers including state, local, school, police, and firefighter employees (Mitchell, McCarthy, Wisniewski, and Zorn 2001). These plans cover many hundreds or thousands of small townships, counties, state agencies, and school districts. In total, there are over 15 million participants in these plans constituting just under 11 percent of all U.S. employees but more than 20 percent of all DB participants. Legislation enabling public sector pension provision varies across state and locality, yet the structure is generally similar. Typically these plans are defined benefit in nature, though all fifty states also offer some form of defined contribution plan in addition.

Some of the largest pension plans in the nation are the long-established church and educational institutions. The Presbyterian pension fund began to cover church employees in 1717. The Episcopal Church plan originated

Delinking Benefits from a Single Employer 265

in 1917 with an initial endowment from a wealthy Episcopalian, J. P. Morgan. This plan now covers over 8,000 active ministers.² The Episcopal plan is joined by plans from several other religious denominations including the Baptists, Presbyterians, and Methodists. The Church Benefits Association in the United States has forty-five Protestant plans and the Association also includes Jewish and Roman Catholic plans. (Goldman 1996). The Teachers Insurance Annuity Association and College Retirement Equities Fund, now known as TIAA-CREF, had its roots in a system endowed by Andrew Carnegie in 1918 for universities and college teachers. It is technically an association of single-employer plans; but it is clearly one that functions as a multiemployer plan.

When establishing these pension systems, each of the plans had to confront a nettlesome “past service” issue during the plan’s startup phase. This refers to the political and practical difficulties of requiring young workers to pay for the pensions of current retirees who never contributed to the plan. In practice, the problem was solved by eleemosynary action in the teachers and church plans (the rich donated enough to cover past service liabilities). However, philanthropists were hiring and not retiring blue-collar workers and their employers. Workers and employers in industries characterized by competition and fluctuating demand either paid labor on a spot market or overcame collective action problems by creating funded pension plans that would deliver meaningful benefits and would be as trusted as banks to handle money well.

The Scope and Special Features of Multiemployer Plans

Our accounting of pension coverage trends over time brings to the fore the importance of the multiemployer alternative. In the United States, the private voluntary multiemployer pension system is sometimes seen as a model for ways to provide retirement insurance in casual labor markets. It is worth noting that the few industries that have continued to boost employee benefit spending faster than cash compensation are precisely those that rely on private multiemployer plans to deliver pensions: construction, wholesale trade, finance, and insurance. The one exception, in finance and real estate, has rising employee benefit shares but does not depend on multiemployer plans to deliver defined benefit pensions.

An assessment of the current size of the multiemployer pension system is facilitated by data presented in Table 1. Information on the nation’s 200 largest pension plans provided by Pension and Investments includes church plans (data from the U.S. Department of Labor and the Employee Benefits Research Institute do not). In this table it is clear that the assets of large public plans dominate the top 200 list, followed by corporate plans, union multiemployer plans, and church plans. Over \$4 billion in assets is

266 Teresa Ghilarducci

TABLE 1. Assets of Private Sector and Church Multiemployer Plans Among Top 200 Pension Systems

<i>Name of fund (rank by asset size)</i>	<i>Assets (billions)</i>
1. Western Conference of Teamsters (47)	\$23.8
2. Teamsters Central States (54)	21.2
3. United Methodist Church (79)	13.3
4. United Mine Workers of America (121)	8.2
5. Southern Baptist (127)	7.8
6. Operating Engineers CPF (142)	2.5
7. Boilermaker and Blacksmith (148)	4.3
8. Episcopal Church (149)	6.7
9. Presbyterian Church (155)	6.5
10. 1199 Health Care Employees (156)	6.3
11. Evangelical Lutheran Church (162)	6.0
12. Int'l. Assoc. Machinists Natl Pension Fund (168)	5.8
13. Bakery and Confectionery Wrkrs. (169)	5.8
14. Sheet Metal Workers (200)	4.9
Total assets in top 200 in private or church multiemployer plans	\$123.1
Total assets in top 200 in Church Plans	40.3
Total assets in top 200 in union multiemployer plans	82.8
Total assets in top 200 in corporate plans	1,577.7
Total assets in top 200 in public employee plans	2,461.9
Total assets in all top 200 pension funds	4,160.7

Source: *Pensions and Investments* (2001: 1).

controlled by the largest 200 pension funds, and most, \$2.4 billion, are held by public employee plans. A comparatively smaller portion, \$ 0.1 billion, is in private or church multiemployer plans and the rest, approximately \$1.6 billion, is in single employer plans. Thus from the perspective of total private pension assets, the bulk is no longer held by single employer plans in the United States.

From other sources, we find that 20 percent of active DB plan participants in the private sector had a multiemployer plan in 1996 (EBRI 1997). This represents an impressive growth since 1950, when private multiemployer plans covered only 10 percent of active pension DB participants, though the trend leveled off since 1960 when 18 percent of the active DB plan workforce had multiemployer coverage. Another way to assess the importance of collectively bargained multiemployer plans is to note that 12 percent (11 million out of a total 92 million) plan participants in any employer-sponsored plan were in multiemployer plans (U.S. Department of Labor 2000).

Almost all workers in heavy construction, shoe repair stores, liquor stores, and others depend on multiemployer plans for supplements to Social Security and their individual savings plans. Among heavy construction, 94 percent of industry workers, retirees, and dependents covered by a DB plan

Delinking Benefits from a Single Employer 267

are in multiemployer plans and 55 percent of those participating in DC plans have them through a multiemployer plan. The figures are 59 percent of apparel employees, 73 percent of retail food store employees, and 39 percent of furniture industry participants (Table 2). Table 2 also reports wage rates and shows that earnings in the service and retail area, where multiemployer plans are important delivery systems, are lower than average rate of \$13.24 per hour. However, multiemployer plans also deliver pension benefits in some highly skilled labor markets as well.

Collectively bargained Taft-Hartley funds sponsored by the same union in a given craft or industry allow participants to build pension vesting and benefit service while holding jobs with different signatory employers who contribute to the same plan. This is highly effective in facilitating labor supply in decentralized industries with migratory workforces like construction, trucking, retail food, the garment trades, and some of the service industries. This level of local labor market portability in the Taft-Hartley world can be extended geographically through formal reciprocity agreements between different pension plans nationwide in the same industry sponsored by the same union. Several unions actually administer national reciprocity agreements between large numbers of local and regional pension plans with formal dispute resolution procedures.

Scope and Special Features of Multiemployer Plans

Judging from the diversity of plans examined thus far, it might be thought that the political provenance of the multiemployer structure, deriving as it does from the early presidents' coal and steel boards, explains why these funds are jointly trustee with equal representation from labor and management. This would be mistaken, however, since the essential feature of these funds is that they are voluntary and provide funding for a long-term liability.

Governance and Legal and Fiduciary Standards

Trust law as codified under the Employee Retirement Income Security Act (ERISA) requires that pension plan trustees act according to the "duty of loyalty" principle. This means that trustees must act for the sole benefit of the plan beneficiaries.

In the case of multiemployer plans, management and labor trustees have a common purpose in the pension arena, though they may be opponents on other issues. The plans' unique joint governance structure leads to many special outcomes. For instance trustees from both sides of the table report they have a great deal of influence over the administration of the fund, which results in economic advantage as workers are provided with health insurance and pensions. The legal trust arrangement coupled with reporting

268 Teresa Ghilarducci

TABLE 2. Multiemployer Pension Plan Coverage and Wage Rates by Selected Industry, 1996

	<i>Multiemployer pension participants as percent of total DB plan participants, 1996</i>	<i>Average hourly wages for nonsupervisory and production workers in 2000</i>
<i>Agriculture</i>	13	\$9.21
Hunting and trapping	58	na
Fruit and nuts	55	na
<i>Mining</i>	2	17.04
Coal Mining	10	19.28
Construction	94	17.13
Electrical work, masonry, stone, carpeting, flooring, concrete, roofing, sheet metal, plumbing, heating/cooling, paper hanging, etc.	97-99	17.43
Highway/street, general building contractors	92-96	na
Heavy construction	73	16.74
<i>Manufacturing</i>		
Nondurable	7	13.17
Leather products/goods, commercial/other printing	58	9.69
Women's apparel	94	8.41
Durable	4	14.4
<i>Transportation</i>	49	15.67
Trucking	81	13.95
Water transportation	80	na
Public warehouse, terminals	65	na
Pipeline	56	21.79
<i>Communication</i>	0.1	17.38
<i>Wholesale trade</i>	27	14.59
Apparel, piece goods, notions	91	na
Meat and meat products	80	na
Alcoholic beverages	55	na
<i>Retail trade</i>	5	9.08
Drinking places	100	6.62
Meat and fish markets, clothing	97	na
Liquor, new car dealers, grocery, hobby	69-78	na
<i>Finance</i>	1	14.61
<i>Service</i>	29	13.38
Shoe repair and hat cleaning	100	na
General auto repair, bowling alleys	100	11.48
Producers, orchestras, entertainers	99	11.48
Nurses (RN and practical)	94	10.18
Laundry garment cleaning	91	8.76
Motion pictures	78	15.69
Hotels	78	9.22
<i>Nonprofit organizations</i>	1	na
<i>U.S. average</i>	20	\$13.24

Source: Column 1: Ratio of total participants in multiemployer DC plans to total participants in all DC plans from Form 5500 Plan data tabulated by author; industry categories based on Form 5500 industry codes. Column 2: U.S. Bureau of the Census (2000). na = not available.

Delinking Benefits from a Single Employer 269

laws makes decisions public and transparent. The equal representation requirements help solve conflict of interest problems, because neither labor nor management can act to benefit their own sides alone. In particular, trustee actions must be transparent and thus the funds must be participant-focused. As a consequence, the multiemployer fund may not forgo contributions in order to benefit an employer or preserve an agreement. In addition the plan governance structure ensures a participant focus by limiting means for contributions to be altered even in the face of potential actuarial gains. Ordinary definitions of prudent investment also apply; there is little difference in the asset allocations of public, private, and union funds.

Solving Collective Action Problems

Employers and workers in a multiemployer pension system pool their contributions so workers are covered by the same provisions, no matter where the job may be, as long as the employer is participating. This will typically be in the same industry and, often, in the same geographic region. Employers in these sectors require workers with similar skills but because of the nature of their product demand, may not be able to hire workers on a long-term basis. In this context a collective action problem exists, such that no single employer has the incentive to provide pensions, health care, or training if the returns on these investments cannot be returned to the sponsoring firm.

Multiemployer plans can be a mechanism by which firms and workers can share costs, thus solving the public good problem and creating economies of scale. Particularly when labor markets are fluid and jobs contingent, valuable skills derived from experience may be lost in turnover. In such a case, occupational loyalty can become increasingly important: the mobile workers obtain portable pensions and are able to save for retirement, while employers obtain skilled workers and a way to share in the cost of training. Thus, the multiemployer plan satisfies these needs by sharing the costs and benefits of increased mobility.

To describe how multiemployer pensions provide security in a dynamic market environment, it is instructive to consider the circumstances of a group of nurses employed in New Jersey health care providers. These nurses have sought inclusion in a multiemployer plan operated by the International Union of Operating Engineers rather than their hospital's single-employer plan, since hospital ownership has changed many times through mergers and restructurings. One nurse noted that she had been covered by six separate single-employer DB plans, but she has no idea of anticipated benefits from any of them. The pension plan administrator observed, "when an industry is poorly managed and unstable the multiemployer plan is the only option for meaningful retirement coverage" (Fanning 2001). Here the multiemployer plan, by virtue of the diversity of its industry base

270 Teresa Ghilarducci

and connection with a long-standing union, is seen as providing a more secure pension promise than the traditional single-employer model.

Hybrid Features of Multiemployer Plans

In a multiemployer model, participating firms pay a specified contribution into the plan according to a collective-bargaining agreement that varies according to bargaining power. In other words contributions depend on the company's relative ability to pay and the union's ability to bargain for benefits (Chamberlain and Kuhn 1986). Thus in the typical multiemployer plan, the employer's contribution is defined but the worker's benefit is also specified — the latter is what makes it formally a defined benefit pension.

In a multiemployer DB plan, an employer would account for pension costs just as in a DC plan, with the amount not determined unilaterally but rather by a collective bargaining agreement. What makes it a hybrid is that benefits are specified as guaranteed annuities, most often based on a worker's service credits, pay, and disability conditions. Consequently these plans are hybrids between defined contribution and defined benefit plans. Most multiemployer plans have a uniform benefit according to the area contract. The employers in a given area tend to pay a uniform rate that may change as a result of varying economic conditions. For example, pension contributions have responded over time to rising health insurance premiums.

The Sheet Metal Workers' pension plan is typical in many ways of the multiemployer model. Here the retirement benefit depends on a formula that includes years of service, hours worked per year (hours over 1,400 per year are credited at lower rates), an adjustment rate determined by an actuary, and an hourly contribution that varies by local. Since contribution rates vary by local (as do wages), plan members with the same career profile but covered under different contracts will get different eventual retirement benefits.

The Central Pension Fund of the Operating Engineers (CPF) and the Western Conference of Teamsters plans tie employers' contributions directly to actual benefits paid. The benefit formula is then based on a rate determined by fund trustees and the balance of a final "account," making this approach analogous to a cash balance plan. For example, the monthly annuity is worth 3.5 percent of a retiree's account balance; if a member works thirty years and has \$50,000 of contributions credited from various employers, the retirement benefit would be \$1,750 per month (in the 2001 CPF plan). Like cash balance plans, these benefits accrue on a career basis rather than a final average pay basis, and different rates prevail in different contracts, reflecting employers' differential abilities to pay and levels of bargaining power. In the CPF, contribution rates vary from \$0.050 to \$5.60 per hour; in the Western conference of Teamsters the range is similar,

Delinking Benefits from a Single Employer 271

from \$0.60 to over \$6.00 per hour. The range is similar in the Sheet Metal Worker's plan.

While plan trustees track contribution rates for locals and determine workers' benefits, multiemployer plans are not required to keep records on what each employer pays for a given employee since this is not required by law. In practice, trustees sometimes have difficulties ensuring that employers actually pay required contributions.

Breaks in Service

The multiemployer plan environment has been able to adapt relatively flexibly to changes in the labor market. For example, defined benefit plans typically have rules about "breaks in service" having to do with how long a participant may be out of employment before losing the right to return to the plan and continue accruing benefits. In practice, multiemployer plans have exhibited substantial flexibility over the business cycle in terms of service rules, subject of course to ERISA requirements. During the 1970s recession, for instance, the Sheet Metal Workers Fund lengthened its rule regarding how long a worker could be out of employment before credited service was lost. This produces costs to the pension plan, of course, so other benefits had to be implicitly weakened in reaction. Nevertheless, this flexibility reveals multiemployer pension fund sensitivity to industry needs and worker concern with security.

Disability, Early Retirement, and Unretirement

Multiemployer plans tend to have generous early retirement eligibility and disability rules, reflective of the blue-collar and low-pay nature of the jobs. In addition, multiemployer plans tend to tailor disability and return-to-work rules to the needs of the particular group and accommodate employers' differing abilities to pay. The earliest age for collection of retiree benefits is 62, though employers may offer early retirement bonuses on an ad hoc basis.

Multiemployer plans also have special early retirement provisions that are effective responses to changes in specific industry employment patterns. Recently some Taft-Hartley plans have also liberalized "suspension of benefit" rules prohibiting retirees from returning to work in their career industry, recognizing increases in demand for experienced employees. Other Taft-Hartley pension funds are considering plan redesigns that incorporate deferred retirement option plans (DROPs), which is a way to facilitate phased retirement. Under this arrangement, plans can modify their suspension of benefit rules to suspend only a portion of the benefit based on hours worked. This approach provides greater flexibility to design a program that best meets the needs of the participants.

272 Teresa Ghilarducci

Another way multiemployer plans have been responsive to the economic environment has to do with “suspension of pension” rules. This arises because of the Employee Retirement Income Security Act, which requires funds to continue paying pension benefits if a retiree returns to work in his same industry but is employed fewer than 40 hours a month or 480 hours in a year. If he should work more than this, the fund can legally restrict his pension benefits until he leaves that employ.

In some sectors the particular threshold chosen to determine whether the pension is suspended, 40 or 480 hours, matters a great deal. For example, in construction, employers often need workers more than 40 hours per month but require them only a few months per year. As a result in that industry, a 40-hour per month rule proves more restrictive than is the 480-hour rule. In practice, since multiemployer plans are managed by employers and unions, the rules are often varied according to labor market conditions. For example, the Central Pension Fund of the Operating Engineers switched from the liberal to the restrictive rule in the 1970s to retard the growth in nonunion construction (Fanning 2001). Likewise during the 1990s the severe labor shortages in most of the major crafts put pressure on the many of the funds to switch back to the more liberal 480-hour rule restriction. The Sheet Metal Workers fund and CPF have resisted the more liberal rules arguing that collectively bargained pensions might subsidize nonunion employers and erode pension contributions, if “return to work rules” are too permissive. On the other hand, many unions have hailed the congressional rule change lifting the earnings test for older workers under social security. Indeed, the Western Conference of Teamsters plan restricts employment eligibility only for members under the age of 65. After age 65, pensions are no longer suspended for delayed retirement (Saunders 2001).

Of course the strict suspension benefit rules can hurt union employment. There are no union employers for which the older individual can work, particularly if labor markets are tight. In such cases, it is likely that the suspension of benefit rules would be liberalized so that pensioners can work without losing benefits. Further having retired union members working for a nonunion employer can improve the chances of successfully organizing. In some cases having a union employee working for a large nonunion company offers “salts” in places the union is seeking to organize.

Reciprocity

Most multiemployer plans in the United States developed reciprocity agreements with each other in the 1970s and 1980s. Reciprocity agreements are arrangements between local unions with different plans permitting continued benefits coverage when each others’ members work across jurisdictions. While reciprocity methods vary, the result is that workers continue to be covered when they move between member employers.

Delinking Benefits from a Single Employer 273

Economies of Scale

The average collectively bargained multiemployer plan is larger than the average single-employer plan, enabling this multiemployer format to take advantage of scale economies. Twenty percent of single-employer defined benefit participants are in plans with more than 50,000 participants, while the fraction is 42 percent among multiemployer participants (USDOL 2000). Scale economies are confirmed by many researchers, who find that larger pension plans are less expensive to administer than small plans. For example Husted (1996) found that small funds (with 15 participants or fewer) spent about 58 percent of normal cost on administrative expenses, while large plans (with 10,000+ participants) spent about 2.5 percent of normal cost. Of course these costs vary with participant mix, since service levels differ depending on the fraction of actives versus retirees (Mitchell and Andrews 1981; Ghilarducci and Terry 1999). On the other hand, multi-employer plans are often regional and the fact that they are sometimes small explains why they were formed in the first place.

Cross Subsidies

All defined benefit plans entail cross-subsidies across members. The clearest one involves transfers between retirees who die earlier than their life expectancy versus those who live longer than their life expectancy. In addition there have been periodic discussions about other types of cross-subsidies in the multiemployer context, such as between large and small employers, or wealthier and less well-off union locals. One case highlighting this issue occurred when the United Parcel Service proposed in 1997 that its employees leave the Teamsters multiemployer pension plan and instead have their own single-employer plan. The employer argued that it was subsidizing smaller employers in that multiemployer framework, a point that the union partially conceded by recognizing that UPS membership helped achieve scale economies. On the other hand, the union contended that without an actuarial study, it was impossible to know whether the resulting single-employer plan would provide benefits that were at least as good, for less money. In addition, the UPS workers would lose their trustee representatives in a single-employer plan, which they believed would affect the chances of their receiving ad hoc COLA increases in their pension benefits, and portability rights to other participating employers would also be lost.

In another context, some members of the Central Pension Fund (CPF) of the Operating Engineers have experienced higher levels of contributions and growth than others, leading to some concern that they are “carrying” the poorer and shrinking locals. In this case too, some eighty actuarial studies would have to be conducted to determine whether each local’s past and projected experience would yield better benefits than under the CPF.

274 Teresa Ghilarducci

Thus far no study has been conducted of the cross-subsidies and how they would be unwound if the parent plan were to be broken up.

In the Episcopal Church, there is an explicit policy of redistribution between higher- and lower-paid clergy. This is evident in the pension formula, where the basic benefit consists of a higher percentage (1.75 percent) of the average of the highest seven years for the first \$10,000 of salary, but 1.5 percent for pay beyond that. The benefit is not indexed to inflation formally, but the Episcopal fund has provided an ad hoc cost of living adjustment since 1980 by issuing a “13th check” that is based on years of service. Within every level of service, the 13th check is the same, however (e.g., a minister with a \$7,000 benefit will get the same amount as one with a \$30,000 benefit; Blanchard 2001).

Inflation Protection

The inflation protection provided by multiemployer pension plans is worth highlighting since it contrasts with corporate plan behavior. As mentioned above, there is no mechanism to stop contributions to the pension trust once these are set by a collective bargaining agreement. As a result, multiemployer trustees can and often do raise retiree benefits to compensate for inflation losses. These inflation payments can be made via the “13th check” discussed above, or an ad hoc basis by issuing benefit increases that depend on the retiree’s years of credited service and age.

Joint Governance and Trust Fund Structure

The multiemployer governance structure can permit the sharing of investment gains between workers and employers. In practice, multiemployer DB plans have passed on more pension fund investment gains to participants than have single employers. Thus between 1984 and 1996, single-employer DB plan contributions per participant fell 29 percent, while multiemployer plan contributions fell by 37 percent. Despite this, benefits in multiemployer plans grew 26 percent versus only 6 percent in corporate DB plans. During the same period, multiemployer DC plan contributions rose 8 percent, while (contrary to popular belief) corporate employers cut back on DC contributions by 20 percent; see Table 3.

There are also differences in behavior when a pension plan is overfunded. If robust investment earnings cause the pension fund assets to surpass 150 percent of liabilities, this eliminates tax deductibility of further contributions. In such a case, contributions must be cut, or benefits can be boosted. In practice, multiemployer plans tend to increase benefits or slow down employer contribution increases in the next round of collective bargaining. By contrast, corporate employers tend mainly to cut back on contributions. As a result, jointly trusteeed plans pass on pension funds gains

Delinking Benefits from a Single Employer 275

TABLE 3. Pension Generosity, Employer Contributions, and Worker Contributions to Pension Plans by Sponsor Type, selected years 1984–96 (2000 dollars, data weighted by share of active participants in group)

<i>Top 1000 corporate pension plans (by asset size)</i>	<i>Real change (1984–1996)</i>	<i>1984</i>	<i>1996</i>
<i>Defined benefit plans</i>			
Total employer contributions per total participants*	-0.29	\$3,379	\$2,394
Average generosity** (normal cost/active participant)	0.06	2,224	2,356
<i>Defined contribution plans</i>			
Total employer contributions per total participant	-0.20	2,924	2,327
Worker contributions per active participant***	0.51	1,907	2,879
<i>Top 100 Multiemployer Pension Plans (by asset size)</i>			
<i>Defined benefit plans</i>			
Total employer contributions per total participant	-0.37	3,104	1,962
Average generosity (normal cost/active participant)	0.26	1,399	1,763
<i>Defined contribution plans</i>			
Total employer contributions per total participant	0.08	2,679	2,901
Worker contributions per active participant	5.633	3.3	189

Source: Author's tabulations, Form 5500 data. Obvious outliers were omitted when employer contributions per participant exceeded \$20,000 and when total participants, generosity, and worker contributions were negative.

Notes:

* Employer contributions are measured as the sum of Form 5500 item 32a(1a) and item 32a(2). Total participants include total active participants (item 7a(4)) and total retirees (item 7b).

** Normal cost is defined as item 9b in Form 5500 Schedule B filings.

*** Worker contribution is defined as item 32a(1b) in Form 5500 filings.

276 Teresa Ghilarducci

to participants while single employers tend to pass these gains to shareholders and owners. These differences between corporate and multiemployer plan trends are due to differences in contribution structure, the fact that multiemployer plans have a more transparent pension decision-making structure, and the fact that multiemployer trustees tend to be held more accountable by plan participants. As a result, the two plan structures appear to behave differently in the face of similar economic shocks.

Challenges to the Employer-Based Benefit Paradigm and Implications for Multiemployer Plans

As noted above, pension coverage in the United States remains voluntary, and has leveled off at around 50 percent of the workforce. The fact that coverage has not risen despite a booming economy and labor shortages in some sectors has suggested to some that the employer-based pension system may have become too inflexible to accommodate the new workplace realities. Further evidence of the changed benefit paradigm can be seen in the pension arena where worker participation in DC plans has risen dramatically and fallen in DB plans (Mitchell and Schieber 1998; Turner 1993; Turner and Watanabe 1995). The shift toward DC plans and the popularity of 401(k)s also represents a move away from group-based solutions to insurance to individual-oriented solutions. This is reflected in the fact that the overall fraction of pay going to benefits has declined over time: the share of total compensation going to benefits survey declined from 42 percent to 37 percent between 1989 and 1999 (U.S. Chamber of Commerce 1999). Conversely, cash compensation dominates in casual, short-term, spot labor markets, and this benefit decline is not merely an artifact of the fastest growing industries and occupations. At the same time, the business community has been rethinking its role and its social obligation in sponsoring employee benefits.

Explanations for Shifts in the Benefits Paradigm

Various explanations have been offered for these changes in the U.S. benefits environment. Some argue that the “social contract” is being realigned between workers and employers, while other commentators argue that the traditional social contract has collapsed (Osterman 1999). It may be that increased worker mobility is driving the trend to DC plans, because pensions now need to be delinked from a single employer. Some weaknesses of the DB system may also have eroded worker confidence that employers are committed to pensions, including the lack of regular cost-of-living increases and the evidence that employers have taken contribution holidays in the last decade. Of course, the 1990s bull market may have led some to discount the investment risk inherent in DC plans. In general, these explanations

Delinking Benefits from a Single Employer 277

point to workers as agents of change. That is, the “individual responsibility” framework is the logical result of more independent “new-economy” workers rejecting traditional benefits like health insurance and pensions and paternalistic social contracts.

Another explanation for the rise of the individual responsibility model is that worker bargaining power has fallen over time. Employer norms, needs, and increased market power relative to workers has diminished employer willingness to sponsor work-based insurance programs. To illustrate this point, when workers express their choices via unions and collective bargaining, they favor benefits and have over 30 percent more compensation in employee benefits.³ Additionally, they select DB plans with supplemental DC programs.

Some policymakers contend that it would be useful to encourage the move to separate employee benefits from the employment relationship. Examples of this approach in the private sector include proposed legislation for personal tax credits for individual employee benefits, the growth of medical savings accounts, and E-commerce individual health plans. Also private sector trends toward individual responsibility have been manifested in the outright elimination of DB pensions and retiree health coverage. The largest private sector employer, Wal-Mart, with over 850,000 employees, provides health insurance to less than 40 percent of its workforce, and instead the company sponsors individual account savings plans dominated by investments in its own corporate stock. In the public sector this trend is also seen, with DC pensions being adopted in Florida and Michigan.

On the other hand, there is evidence contradicting the view that benefit trends result from employee pressure to adopt the individual responsibility model. Labor economists tentatively agree that job instability is increasing,⁴ which could mean either that workers are voluntarily leaving their jobs after shorter periods of employment, or that firms are offering low-commitment relationships. The jobs where instability has increased are particularly those for whom pension accruals might be thought to be the most crucial: for men age 45–54 and 55–64, and particularly for African-American men. Workers with more than nine years of service are those on the brink of vesting, but this group is experiencing the largest declines in job stability. Women and workers with less than two years of service have been least affected. Occupational data show managerial and clerical job security falling significantly but less than for service and blue-collar workers (Neumark 2000). In sum, the increase in cash-intensive pay and job instability suggests that employer commitment to workers over the long term is waning.

While the future cannot be predicted, it may be that the individual responsibility model of employee benefits will be short-lived. This is because the unprecedented economic growth and booming stock market of the last two decades provided a best-case incubator for the rapid expansion and acceptance of individual-account DC pensions. These trends were also

278 Teresa Ghilarducci

facilitated by substantial market deregulation and declining rates of unionization in the labor force. If the economy is to sustain a prolonged stock market downturn or a severe recession, this will test worker tolerance for risk that individual account pension plans have shifted to employees.

Advantages to Participants

Several important risks must be managed in a work-based pension scheme: employment, investment and default, consumer, longevity, inflation, and heuristic risks. Multiemployer plans' contribution and governance structure and transparency of fiduciary decisions work to workers' and retirees' advantage by maximizing pension income and minimizing many of these risks.

Employment risk is important for those covered by corporate DB plans because the benefit accrual pattern is backloaded, and benefits are worth less if the worker leaves the firm before accumulating meaningful credits or account balances. While 401(k) and other DC plans minimize this risk, retirement balances may be eroded if people cash out their lump sums when changing jobs. Multiemployer plans, on the other hand, mitigate this employment risk as long as the worker remains covered by contributing employers.

Investment and default risks are protected against in all U.S. DB plans since the retirement benefit is guaranteed by the fund, and backstopped by the Pension Benefit Guaranty Corporation in the event of asset insufficiency.

Consumer risk refers to participants' exposure to excessive administrative expenses that retail savers might otherwise face. DB plans and professionally administered DC plans can minimize such consumer risk in contrast to self-directed individual plans, via economies of scale and professional monitoring.

Longevity risk concerns the risk that retirees outlive their accounts. DB plans generally pay life benefits, protecting against this concern, whereas DC plans are far less likely to provide annuity payouts. In this sense DB plans offer a risk pool better protecting plan participants.

Inflation risk has to do with the fact that over a long retirement period, benefits fixed in nominal terms will suffer eroding purchasing power. It appears that, in practice, multiemployer plans do a far better job than do corporate DB plans in protecting against this risk.

Heuristic risk is another concern in pension plan design. This arises, for instance, due to bias toward saliency, loss aversion, undue optimism, and other factors under current investigation in the behavioral finance literature. It is been suggested that participants in self-directed pension plans, particularly 401(k)s, may see depressed investment returns because they tend to make wrong choices, trade and borrow too much, engage in market timing, and experience high costs of trading (Bureau of National Affairs

Delinking Benefits from a Single Employer 279

2001). Evidently the DB model is superior on this count inasmuch as participants do not make individual investment decisions about their pension assets.

In sum, under DB plans workers are protected from some of the risks they bear in DC plans, and multiemployer DB plans can play a role mitigating all of these.

Advantages to Employers

Some employers, particularly smaller ones, can find substantial advantages to joining a multiemployer plan. This is because the multiemployer structure allows them to provide pensions to themselves, office staff, and their workers efficiently, and help solve labor supply problems.

One way in which pensions are beneficial to employers is that having a pension plan tends to cut down on worker mobility. As a consequence, employers can invest in employee training in the expectation that these workers will be there in years to come. Such “win-win” trades help make the economy more productive (Ghilarducci and Reich 2001).

Another way multiemployer plans help employers manage the supply of labor is through reciprocity. This means that skilled workers from one geographic region can work in another geographic region without losing benefit coverage. This has proven useful in industries experiencing substantial volatility such as in construction. For instance, the University of Notre Dame is adding an extension to its football field, something the university does only once or twice a century. As a result, the handful of bricklayers and masonry workers in South Bend cannot meet the demand and workers had to be imported from other regions. During this time, work in South Bend still counts toward service credit in their home pension plan. Such pension reciprocity in regional multiemployer plans keeps employers and workers from overspending on training, and helps protect workers from fluctuations in earnings.

Pensions and the Income of the Elderly

Concern over the well-being of the elderly also motivates concern over the lack of growth in employment-based pension coverage. Pensions today represent two-fifths of retirement wealth for the average American household on the verge of retirement (Moore and Mitchell 2000). Slottje, Woodbury, and Anderson (2000) show that only Social Security and the ownership of primary residence does more to counteract the unequalizing effects of business assets and stocks and bonds on income and wealth inequality among elderly Americans. Employment-based pension income is less equally distributed than total retiree income, an unsurprising finding since those in higher tax brackets have more incentive to shelter pay in pension plans.

The Future of Multiemployer Plans

Because growth in U.S. pension coverage has apparently stalled, several groups have called for a new institutional framework that can serve to increase coverage among the noninsured. As ERISA attorney Michael Gordon has noted, this requires devoting attention to “the twin areas” of small business and the nontraditional workforce (Gordon 2000). He notes that in single-employer plans, benefit provision is often motivated by corporate tax breaks for pension contributions. By contrast, high turnover rates among small businesses render such incentives rather valueless. Instead, Gordon posits that the multiemployer model could be extended by offering tax incentives to workers and small employers for participation in a new form of statutorily approved multiemployer plan. Gordon claims that some representatives of collectively bargained multiemployer plans would welcome employers not in a collectively bargained agreement. This would permit employees to have complete portability between member employers, akin to the voluntary plans in Europe.

One disadvantage to pooling is that firms have to overcome competing with one another in order to coordinate the establishment of plans. Unfortunately these barriers are so high that most multiemployer plans are coordinated by a union or are in a nonprofit setting. The exceptions are public sector multiemployer plans where governing bodies initiate the coordination. Another disadvantage, related to the first, is that the arrangements are voluntary. When one firm views its liability as much less than average they will have incentive to leave. (The adverse selection problem is one reason that Social Security, unemployment insurance, workers’ compensation, and the like have been structured as mandatory programs.)

From one perspective it would seem that individual-oriented plans would be chief competitors and substitutes for multiemployer plans. After all, single-employer pensions cover the worker population relevant to a given firm. But perceived barriers to expansion of group-based multiemployer pensions may be turned around to help create them. The popularity of 401(k) and 403(b)s stress their portability advantages, while stock market volatility highlights their disadvantages. Multiemployer hybrids, with portability and defined benefit features, may look better in contrast.

Moreover, much of the focus on these plans is mainly because of the technologies that can make them more visible. Because of this narrow focus, workers have a difficult time seeing how their 401(k) plan fits in with their entire package of employer benefits. It is possible that instead of being a barrier to the creation and maintenance of multiemployer plans, multiemployer plan sponsors can facilitate employee education and provision of a range of benefits. There are at least eleven different types of multiemployer plans including pensions. Employers would gain from using the technology to help workers recognize and appreciate all the noncash compensation provided.

Delinking Benefits from a Single Employer 281

Perhaps the technology allowing individuals and employers to find medical plans on the Internet do what group-based employer plans did, which is to get economies of scales. Perhaps the technology allows individual arrangements to be cheaper than employer-coordinated plans. The fundamental impetus for employers to combine and provide pensions is not economies of scale but to restrain competition and the "race to the bottom." The most profitable short-term strategy is to provide no benefits at all and get market share with low prices. But employers from the beginning of the Industrial Revolution knew competition through cost cutting was cannibalism. Taking wages and service and skill-related compensation out of competition, the industry can invest in more capital and training.

Multiemployer plans may become a key labor-organizing tool in the Silicon Valley. Amy Dean, president of the South Bay Central Labor Council, AFL-CIO, promotes multiemployer plans because of the chronic lack of coverage by small employers. "There is potential for taking advantage of economies of scale in administrative costs by pooling small employers in the same industry together thereby increasing the portability of pensions" (Brenner et al. 1999: 67). The union-based organization, Working Partnerships, USA envisions employer-training networks to be connected to the health and pension consortiums.

Conclusion

In our view, the increasing prevalence of cash compensation and the decline of employee benefits as a fraction of payroll are attributable to a sea change in the nature of the employer-employee relationship in the U.S. labor market. In contrast to years gone by, a lifelong mutual commitment between firms and workers is no longer the norm. The multiemployer benefit framework, in our view, offers an important exception to this trend.

Although multiemployer plans in both the private and public sectors cover very different types of workers, from janitors to university presidents, they are similar in that they solve three key problems. First, but perhaps least important, multiemployer plans can take advantage of savings on large group annuities and professional management fees. Second, multiemployer plans recognize the skill management and insurance needs of a heterogeneous workplace, where patterns differ by unique industry/occupation. Third, multiemployer plans can help solve the collective action problem: that is, no one employer may have an incentive to provide benefits or training without its competitors doing so, so joint action can be efficient for all.

The continuing importance of negotiated multiemployer plans attests to how a central agent, such as a union, can offer a key benefit function in the service of employees and also of assistance to employers. Compared to the one-size-fits-all structure of Social Security, multiemployer plans can adapt to the idiosyncrasies of particular industries and occupations. In this

282 Teresa Ghilarducci

sense, delinking pensions from the single employer via multiemployer plans may hold out hope to resolving portability and income security problems. Multiemployer plans may also serve as a model for expanding social insurance across employers. These plans do what human resource experts and industrial innovation experts say must be done: the plans can lower the cost of training by reducing the chance of workers leaving the industry or occupation.

Notes

1. In the 1930s and 1940s the UMWA covered a majority (80 percent) of mine-workers. The union was so wealthy that it helped organize emerging unions in the Congress of Industrial Organization (CIO) which covered workers in the rubber, steel, and auto industries. In the mid 1940s, the UMWA directed its bargaining power toward pensions.

2. The Episcopal Church plan idea came from a patron who noticed “that pastors and priests were working way past their age of effectiveness and they wanted to help people retire at a reasonable age. The age was set at 68.” Human resource management needs therefore shaped the development of this clergy plan.

3. The difference in benefits is substantial if one compares them across union and nonunion sectors. For example union workers had 37 percent of compensation devoted to benefits versus 29 percent for nonunion manufacturing employees in 1999. This gap persists in non-manufacturing where benefits make up 33 percent of union workers’ compensation and 25 percent of workers’ remuneration (USBLS 1999). The positive union effect on benefits may result from the workings of group processes enabling workers to overcome myopia and overoptimism regarding risks due to poor health, disability, and retirement. Economies of scale may also explain the relative growth in benefits in multiemployer settings. In addition, unions provide job protection and “voice,” helping form training and deferred compensation agreements.

4. Job tenure among men has fallen over time in the U.S. For example, average seniority on the job for men age 45–54 fell from almost 13 years to over 9 years. Among men age 55–64, average seniority was over 15 years in 1983, but had dropped to 11 by 1998. Among women, by contrast, tenure has increased by 5 percent over this same period, with the largest increases seen among older women workers (USBLS 1998).

References

- Blanchard, Alan. 2001. Administrator for the Episcopal Pension Fund. Personal interview with Ghilarducci, February 23.
- Brenner, Chris, Bob Brownstein, and Amy Dean. 1999. *Walking the Lifelong Tightrope*. San Jose, Calif.: Working Partnership USA and Economic Policy Institute.
- Bureau of National Affairs. 2001. “Offering Internet Access to 401(k) Plans Can Bring out the Day Trader in Employees.” *Pension and Benefits* 1, 38 (February): 6.
- Camden, Carl T. This volume. “Benefits for the Free Agent Workforce.”
- Chamberlain, Neil and James W. Kuhn. 1986. *Collective Bargaining*. 3rd ed. New York: McGraw-Hill.
- Copeland, Craig. 2000. “Pension Coverage.” EBRI Notes. Washington, D.C.: Employee Benefits Research Institute. September.

Delinking Benefits from a Single Employer 283

- Employee Benefit Research Institute (EBRI). 1997. *Fundamentals of Employee Benefit Programs*. 5th ed. Washington, D.C.: Employee Benefit Research Institute.
- Fanning Mike. 2001. Administrator for the Central Pension Fund of the International Union of Operating Engineers. Personal interview with Ghilarducci, February 20.
- Ghilarducci, Teresa and Michael Reich. 2001. "Multiemployer Plans as Solutions to Pension and Training Collective Action Problems." *Journal of Labor Research* 22, 3 (Summer): 615–34.
- Ghilarducci, Teresa and Kevin Terry. 1999. "Scale Economies in Union Pension Plan Administration." *Industrial Relations* 38, 1 (January): 11–17.
- Goldman, T. R. 1996. "God Squad; Church Alliance; Acting on Behalf of the Church Benefits Programs." *Legal Times* (American Lawyer Newspapers Group), February 19.
- Goodfellow, Gordon P. and Sylvester J. Schieber. 1993. "Death and Taxes: Can We Fund for Retirement Between Them?" In *The Future of Pensions in the United States*, ed. Ray Schmitt. Pension Research Council. Philadelphia: University of Pennsylvania Press. 126–187.
- Gordon, Michael S. 2000. Testimony on "ERISA at 25; Has the Law Kept Pace with the Evolving Pension and Investment World?" U.S. Congress, 106th Congress, Subcommittee on Employer-Employee Relations, Committee on Education and the Workforce, U.S. House of Representatives, February 15.
- Greenough, William C. 1959. *Retirement and Insurance Plans in American Colleges*. New York: Columbia University Press.
- Hustead, Edward C. 1996. *Pension Plan Expense Study*. Completed for the Pension Benefit Guaranty Corporation. Hay Huggins Consulting Group. Washington D.C.
- Ippolito, Richard A. 1998. *Pension Plans and Employee Performance* Chicago: University of Chicago Press.
- Mitchell, Olivia S. and Emily Andrews. 1981. "Scale Economies in Private Multi-Employer Pension Systems." *Industrial and Labor Relations Review* 34: 522–30.
- Mitchell, Olivia S., David M. McCarthy, Stanley C. Wisniewski, and Paul W. Zorn. 2000. "Developments in State and Local Pension Plans." In *Pensions in the Public Sector*, ed. Olivia S. Mitchell and Edwin C. Hustead. Pension Research Council. Philadelphia: University of Pennsylvania Press. 11–40.
- Mitchell, Olivia S. and Sylvester J. Schieber, eds. 1998. *Living with Defined Contribution Plans*. Pension Research Council. Philadelphia: University of Pennsylvania Press.
- Moore, James F. and Olivia S. Mitchell. 2000. "Projected Retirement Wealth and Saving Adequacy." In *Forecasting Retirement Needs and Retirement Wealth*, ed. Olivia S. Mitchell, P. Brett Hammond, and Anna M. Rappaport. Pension Research Council. Philadelphia: University of Pennsylvania Press. 68–94.
- Neumark, David, ed. 2000. *On the Job: Is Long-Term Employment a Thing of the Past?* New York: Russell Sage Foundation.
- Observatoire des Retraits. 1999. *The European Union and Retirement Pensions*. Paris. No. 11, March.
- Osterman, Paul. 1999. *Securing Prosperity*. Princeton, N.J.: Princeton University Press.
- Pensions and Investments*. 2001. "Steady as She Goes: Assets for Top 200 U.S. Funds Pass \$4 Trillion." January 22.
- Reagan, Patricia B. and John A. Turner. 2000. "Did the Decline in Marginal Tax Rates in the 1980s Reduce Pension Coverage?" In *Employee Benefits and Labor Markets in Canada and the United States*, ed. William Albert and Stephen A. Woodbury. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research. 475–96.
- Riche, Martha Farnsworth. This volume. "The Demographics of Tomorrow's Workplace."

284 Teresa Ghilarducci

- Rosen, Sherwin. 2000. "Does the Composition of Pay Matter?" In *Employee Benefits and Labor Markets in Canada and the United States*, ed. William Albert and Stephen A. Woodbury. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research. 13–30.
- Sass, Steven A. 1997. *The Promise of Private Pensions: The First Hundred Years*. Cambridge, Mass.: Harvard University Press. 139–59.
- Saunders, Mike. 2001. Personal interview with Ghilarducci, February 27.
- Schiller, Robert. 2000. *Irrational Exuberance*. Princeton, N.J.: Princeton University Press.
- Slotte, Daniel, Stephen A. Woodbury, and Rod W. Anderson. 2000. "Employee Benefits and the Distribution of Income and Wealth." In *Employee Benefits and Labor Markets in Canada and the United States*, ed. William Albert and Stephen A. Woodbury. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research. 349–78.
- Turner, John A. 1993. *Pension Policy for a Mobile Labor Force*. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research.
- Turner, John A. and Noriyasu Watanabe. 1995. *Private Pension Policies in Industrialized Countries: A Comparative Analysis*. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research.
- U.S. Bureau of the Census. 2000. *Statistical Abstract of the United States*. Washington, D.C.: U.S. Government Printing Office.
- U.S. Chamber of Commerce. 1999. *Employee Benefits Survey 1999 and Annual Benefits Report*. Washington, D.C.: U.S. Chamber Research Center.
- U.S. Department of Labor. 2000. *Private Pension Plan Bulletin 9* (Winter 1999-2000). Final 1996. Pension Benefits and Welfare Administration, Washington, DC: U.S. Government Printing Office: P. 5 (Table A2.)
- U. S. Department of Labor, Bureau of Labor Statistics (BLS). Various years. *Employment Cost Index*. Washington, D.C.: U. S. Department of Labor.
- . Job Tenure. <stats.gov/news.release/tenure>.
- Woodbury, Stephen A. 1983. "Substitution Between Wage and NonWage Benefits." *American Economic Review* 73 (March): 166–82.