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MATCHING FORM 5500 EMPLOYEE BENEFIT PLAN FILINGS BY EMPLOYER

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SUMMARY

This report documents the interaction between pension and welfare benefits over the years 2005-11. The analysis is based on *Form 5500 Annual Return/Report of Employee Benefit Plan* ("Form 5500") filings for these years. Separate Form 5500 filings are required for pension plans and for welfare plans. Welfare benefits include health benefits, vision benefits, dental benefits, disability insurance, life insurance, and other non-pension benefits. The focus of our work is on the likelihood for employers that sponsor defined contribution (DC) or defined benefit (DB) pension plans to also offer long-term disability benefits or life insurance, and on the effect of replacements of DB plans by DC plans on welfare offerings.

Several previous studies have concluded that many American employers have phased out DB pension plans in favor of DC plans in recent years. This may affect both employees' retirement income and coverage for disability insurance and life insurance, because DB plans often contain such benefit features while DC plans do not. The present study explores to what extent employees are compensated for these indirect losses. To our knowledge, this is the first study to consider this issue using combined Form 5500 pension and welfare filings.

We discuss several shortcomings of the data at hand and advise that as a result of these restrictions our results are to be interpreted with the necessary degree of caution. In particular, we find that the Form 5500 filings for the study of benefit packages would be of greater use if welfare plans were required to specify the number of participants of each benefit type separately.

We find that employers that offer a DC and/or a DB plan became more likely over time to also offer a welfare plan. We also find that the larger the number of participants in an employer's pension plan the more likely it is for the employer to also offer a welfare plan. In addition, we present evidence that employers (at least partially) compensated employees for DB freezes through expanded DC plan coverage, higher DC plan contributions, and expanded sponsorship of life insurance, long-term disability benefits, and health benefits.

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1. INTRODUCTION

Unless exempt, employers that sponsor employee benefits are required to annually file *Form 5500 Annual Return/Report of Employee Benefit Plan* ("Form 5500") with details of benefit plans.¹ Separate Form 5500 filings are required for pension plans and for welfare plans. Welfare benefits include health benefits, vision benefits, dental benefits, disability insurance, life insurance, and other non-pension benefits. While research has been conducted on pension plan filings and, more recently, on welfare plan filings, we are not aware of any published research that links pension and welfare filings. This report attempts to close this gap by linking pension and welfare filings and analyzes combinations of benefits offered and their evolution over time. Among others, it sheds some light on alternative benefits offered by employers that froze their defined benefit (DB) pension plans.

As explained in detail below, it is not always possible to identify all benefits offered by a particular employer from Form 5500 filings. Form 5500 filings are therefore limited in their ability to support analyses of benefit packages.² For example, information on welfare benefits may be incomplete because most small employers are exempt from filing a Form 5500 for their welfare benefits, and information on welfare or pension benefits may be incomplete if they are provided through a union which serves employees at multiple companies. Given those limitations, our analysis centers on the subset of companies for which Form 5500 filings for multiple types of benefits could be located.

The remainder of this report contains the following. Section 2 describes the Form 5500 pension and welfare filings. Section 3 summarizes our approach to matching pension and welfare filings, documents the matching results, and discusses limitations for analyzing employee benefit packages. Section 4 presents cross-sectional and longitudinal analyses of subsets of employers for which Form 5500 filings for multiple types of benefits could be linked. Section 5 concludes.

¹ Certain plans may file a *Form 5500-SF, Short Form Annual Return/Report of Employee Benefit Plan* ("Form 5500-SF"). Unless explicitly specified, this report considers both types of filings.

² There are alternative data sources on benefit packages. For example, the National Compensation Survey (NCS) collects information on workplace establishments and the Current Population Survey (CPS) interviews individuals about the employee benefits they receive. In contrast, Form 5500 filings captures benefits at the plan level.

2. FORM 5500 FILINGS

The Form 5500 was developed to assist employee benefit plans with satisfying annual reporting requirements under the 1974 Employee Retirement Income Security Act (ERISA) and under the Internal Revenue Code. The Form 5500 consists of a main form and various Schedules or Attachments, depending on the benefit plan's characteristics. The same form is used for pension and welfare plans, though different sections may apply to one type or the other. Companies need to file a Form 5500 for each of their benefit plans. However, many companies consider all their non-pension benefits to be provided by a single plan, so that a single Form 5500 may contain information on multiple types of welfare benefits (health, dental, long-term disability, et cetera).

EBSA provided datasets with Form 5500 pension and welfare filings for 2005-11. The pension filings correspond to the Form 5500 Private Pension Plan Research Files ("Pension Files") that form the basis for the *Private Pension Plan Bulletin Abstract of Form 5500 Annual Reports*. It is our understanding that these pension files correct logical and arithmetic data inconsistencies that may have been present in the original filings or arose during the data capture process. For the remainder of this report, the datasets containing welfare filings are referred to as the "Welfare Files," and the Welfare Files and Pension Files are collectively referred to as the "Analysis Files."

The Analysis Files contain filings grouped by statistical year, i.e., the year in which the plan reporting period ended.³ The Analysis Files identify duplicative filings that EBSA considered obsolete and that relate to the same plan and plan period as another filing, such as filings that were later amended. Such duplicative filings—excluded from the analysis—made up approximately 0.3% of all filings in the Analysis Files.

Certain sponsors and certain plans are exempt from filing a Form 5500 (see e.g., *2011 Instructions for Form 5500*). For the purposes of this report, the most important exemption relates to welfare plans with fewer than 100 participants.⁴ A rough indication of the impact of this small welfare plan filing exemption is the fact that, in 2011, there were fewer than 20,000 welfare filings and over 600,000 pension filings for plans with fewer than 100 participants. For plans with 100 or more participants, the numbers of welfare and pension filings were roughly the same. In practice, this means that most small welfare plans are exempt from filing, while many small pension plans must still file. This filing exemption difference implies that

³ The reporting period end date was missing for 73 welfare filings in the 2005, 2006, and 2007 Analysis Files. For the purpose of this analysis we assume that the statistical year was equal to the year of the Analysis File for those filings.

⁴ Generally, small welfare plans that do not operate a trust are exempt from filing Form 5500. More specifically, the small welfare plan filing exemption applies to plans with fewer than 100 participants at the beginning of the reporting period that are unfunded (benefits provided from general assets), fully insured (benefits provided through an insurance contract), or a combination thereof—see, for example, the *2011 Instructions for the Form 5500*.

information on benefit combinations from linked pension and welfare filings may be incomplete, especially among small employers.

Table 1 tabulates the number of filings (or plans) in the Analysis Files by statistical year. The Welfare Files' unique plan counts range from roughly 88,000 to 94,000 in each year from 2005-11.⁵ Similarly, the Pension Files contain roughly 110,000 to 117,000 plan filings from 2005 to 2009, but in 2010, the number of pension plan filings increased to more than 690,000. Prior to 2010, the Pension Files contained a 5% sample of plan filings with fewer than 100 participants, whereas the 2010 and 2011 Pension Files contain the universe of pension plan filings.⁶ In 2011, employers filed nearly eight times as many pension plans as welfare plans. The large discrepancy between number of welfare filings and number of pension filings results in part from the filings exemption for welfare plans with fewer than 100 participants.

Table 1. Number of Plan Filings in Analysis Files (2005-11)

Year	Pension	Welfare
2005	110,493	93,905
2006	112,596	93,357
2007	114,480	92,920
2008	115,750	88,329
2009	117,369	90,272
2010	690,486	90,768
2011	674,286	88,419

Source: Form 5500 Analysis Files.

Table 2 tabulates plan sponsor entity types for the 2011 Pension and Welfare Files.⁷ Single-employer entities sponsor the vast majority of pension and welfare filings. Complicating efforts to create a complete record of individual employers' benefits offerings, multiemployer and multiple-employer entities sponsored 1.1% of pension plans and 5.7% of welfare plans.

⁵ Table 1 through Table 11 present unweighted figures.

⁶ The fact that only a subset of small pension plan filings are available prior to 2010 is not a serious limitation for our purposes because small welfare plans are largely exempt from filing and because the 5% sample is selected such that filings of the same sponsor may be linked over time. The 5% sample contains plans with the penultimate EIN digits 91, 92, 94, 98, and 99. EBSA makes the other 95% of small pension plan filings available in raw format, without the advantages of edited fields and identification of duplicative filings.

⁷ EBSA excluded Direct Filing Entities (DFEs) from the Pension Files, but 98 filings for DFEs appear in the 2011 Welfare Files. These filings were omitted from the analysis. Separately, the total sample sizes reported in Table 2 and following may differ because they exclude filings for which the field of interest is missing.

Table 2. Distribution of Plan Sponsor Entity Type (2011)

	Pension plans		Welfare plans	
	Filings	Percent	Filings	Percent
Single-employer	666,905	98.9%	83,259	94.3%
Multiemployer	2,586	0.4%	3,260	3.7%
Multiple-employer	4,788	0.7%	1,745	2.0%
Total	674,279	100.0%	88,264	100.0%

Source: Form 5500 Analysis Files.

To illustrate the implications of the filing exemption for welfare plans that cover fewer than 100 participants, Table 3 and Table 4 show the distribution of pension and welfare plans, respectively, by number of active participants at the end of the reporting period.⁸ About 573,000 pension plans covered 1-99 participants, compared with fewer than 12,000 welfare plans. Those small pension plans covered 11 million participants, compared with only 0.5 million welfare plan participants. In contrast, the numbers of pension and welfare plans with 100 or more participants are of the same order of magnitude.

Table 3. Pension Plans and Participants by Number of Active Plan Participants (2011)

Active participants in plan	Pension plans		Welfare plans	
	Plans	Percent	Active participants (millions)	Percent
Zero	40,843	6.1%	0.0	0.0%
1-99	572,971	85.9%	10.8	16.4%
100-199	23,867	3.6%	3.3	5.0%
200-499	15,369	2.3%	4.8	7.2%
500-999	5,834	0.9%	4.1	6.3%
1,000-1,999	3,492	0.5%	5.0	7.5%
2,000-4,999	2,502	0.4%	7.9	11.9%
5,000+	1,783	0.3%	30.3	45.8%
All	666,661	100.0%	66.3	100.0%

Source: Form 5500 Pension Research Files.

Note: Participants in multiple plans were counted multiple times. Active participants in DC plans refer to active participants with a plan balance.

⁸ Throughout this report, the number of active DC plan participants refers to active participants with a plan balance. For details on this metric see our 2013 report on "Defined Contribution Plan Employer Match Suspensions during the Financial Crisis."

Table 4. Welfare Plans and Participants by Number of Active Plan Participants (2011)

Active participants in plan	Plans	Percent	Active participants (millions)	Percent
Zero	4,733	5.4%	0.0	0.0%
1-99	11,637	13.2%	0.5	0.4%
100-199	25,288	28.6%	3.6	3.1%
200-499	23,161	26.2%	7.2	6.0%
500-999	9,572	10.8%	6.7	5.6%
1,000-1,999	5,904	6.7%	8.3	7.0%
2,000-4,999	4,246	4.8%	13.3	11.2%
5,000+	3,729	4.2%	79.4	66.8%
All	88,270	100.0%	119.0	100.0%

Source: Form 5500 Analysis Files.

Note: Participants in multiple plans were counted multiple times.

3. MATCHING PENSION AND WELFARE FILINGS

To construct employers' benefit package offerings from plan-level filings, we must define what constitutes an "employer." The Form 5500 captures several sponsor-identifying fields, including Employer Identification Number (EIN) and sponsor name. At issue is that some employers submit pension and welfare filings under different EINs or use spelling variations of their names.⁹ For example, an employer may offer its pension and welfare plans through different subsidiaries. The analysis attempts to identify clusters of plan filings that were submitted by the same corporate group. The objective is to match unique employers in the Pension and Welfare Files.

To determine a unique employer, we defined clusters of EINs and normalized sponsor names that appeared to relate to the same company. For example, a sponsor may have used two EINs, or an EIN may have been associated with multiple (possibly similar) names. Using all Analysis File EIN and sponsor name combinations, we mapped all related EINs and sponsor names into a unique cluster ID.¹⁰ We then merged those cluster IDs back onto the individual Pension and Welfare Files, so that related EIN/name combinations would share the same cluster ID. Each unique cluster ID thereby aims to represent a unique employer.¹¹

Table 5 shows the number of unique cluster IDs ("employers") by statistical year and Analysis File. The number of employers filing a welfare plan was roughly 52,000 in each year from 2005-11. The number of employers filing a pension plan increased monotonically from 2005-09; the 2010 and 2011 figures are much higher because they represent the universe and did not sample small plans.

⁹ There were up to 40 pension filings and 65 welfare filings per EIN in any year, with up to 8 and 11 different normalized pension and welfare plan sponsor names, respectively. Also, there were up to 6 different reporting period end dates among pension filings and up to 9 different welfare plan reporting period end dates per EIN per year. To simplify the process of rolling up filings into corporate clusters, the analysis considers only the year in which the reporting period ended.

¹⁰ We explored also using common addresses to cluster filings. Since many companies reported the same address (same office building), we restricted the attempt to very large companies. The incremental gain from that effort was small—the match rate for very large companies improved slightly but remained well below 100%—and the process could have introduced false matches. The current analysis does therefore not use address.

¹¹ The clustering process dropped 2 pension and 32 welfare filings that had both a missing EIN and a blank normalized name.

Table 5. Number of Unique Pension and Welfare Plan Sponsors (2005-11)

Year	Pension sponsors	Welfare sponsors
2005	87,221	52,446
2006	89,430	52,649
2007	91,452	52,825
2008	92,640	51,255
2009	94,553	52,432
2010	568,319	52,877
2011	563,025	51,776

Source: Form 5500 Analysis Files.

As discussed previously, Form 5500 filing exemptions differ for pension and welfare plans. Notably, welfare plans with fewer than 100 participants that do not operate a trust are generally not required to file a Form 5500. This has important implications for the potential to obtain a full view of employers' benefit packages. In particular, many small employers submit a Form 5500 pension filing but not a welfare filing even though they may offer welfare benefits. It may thus not always be possible to distinguish between an employer that offers pension benefits only and an employer that offers both pension and welfare benefits, but files a Form 5500 for its pension benefits only.

The opposite is presumably less common, but may also occur since some small pension plans are also exempt from filing. For example, a small employer may operate a trust for its health benefits and file a Form 5500 for those health benefits. If no matching Form 5500 pension plan filing is located, it may be because the employer did not sponsor pension benefits, or because it sponsored a Savings Incentive Match Plan for Employees (SIMPLE) or Simplified Employee Pension (SEP) plan that was exempt from filing.

In light of differential filing exemptions, we expect higher match rates of pension plan sponsors and welfare plan sponsors among large employers than among small employers. However, even among larger employers, lack of matching pension and welfare filings need not be evidence of lack of benefit coverage. In one scenario, suppose an employer with 300 employees offered health benefits which were taken up by 150 employees; 70 opted for an HMO and 80 for a PPO plan. Both plans had fewer than 100 participants and the employer may not need to file a Form 5500 for its health benefits. Separately, the employer's benefits may be offered through a multiemployer plan or, for welfare benefits, a Multiple Employer Welfare Arrangement ("MEWA").

Match Results of Pension and Welfare Filings

To obtain a view of the combined pension and welfare benefits package of any employer, the analysis rolled up all related pension plan filings (within a statistical year) into a single record. Similarly, it rolled up all related welfare plan filings into a single record. It then attempted to match pension plan and welfare plan sponsors. Ignoring any issues with filing exemptions or small pension plan sampling in 2005-09, Table 6 shows the number of employers for which we located Form 5500 pension filings only, welfare filings only, or both. Table 7 shows the corresponding row percentages.

Table 6. Matching Pension and Welfare Filings—Sponsor Counts (2005-11)

Year	Pension only	Welfare only	Pension and welfare	Total
2005	56,013	21,238	31,208	108,459
2006	57,375	20,594	32,055	110,024
2007	58,725	20,098	32,727	111,550
2008	60,032	18,647	32,608	111,287
2009	59,096	16,975	35,457	111,528
2010	524,670	9,228	43,649	577,547
2011	520,019	8,770	43,006	571,795

Source: Form 5500 Analysis Files.

Table 7. Matching Pension and Welfare Filings—Sponsor Fractions (2005-11)

Year	Pension filings only	Welfare filings only	Matching pension and welfare filings	Total
2005	51.6%	19.6%	28.8%	100.0%
2006	52.1%	18.7%	29.1%	100.0%
2007	52.6%	18.0%	29.3%	100.0%
2008	53.9%	16.8%	29.3%	100.0%
2009	53.0%	15.2%	31.8%	100.0%
2010	90.8%	1.6%	7.6%	100.0%
2011	90.9%	1.5%	7.5%	100.0%

Source: Form 5500 Analysis Files.

In 2005-09, we identified both pension and welfare filings for roughly 30% of employers. For more than one-half of employers, only pension filings were located, presumably in large part because of the small-plan welfare filing exemption. The number of sponsors of welfare plans for which no pension filings were located was much higher in 2005-09 than in 2010-11, presumably because many pension filings covered fewer than 100 participants and were not included in the 5% sample of the Pension Research Files. That issue did not apply to 2010-11.

To alleviate filing exemption and sampling issues, the next two tables exclude employers that did not file at least one plan with 1,000 or more active participants. Analogous to the previous two tables, Table 8 shows sponsor counts and Table 9 row percentages.

Table 8. Matching Pension and Welfare Filings—Sponsor Counts; Sponsors of at Least One Plan With 1,000+ Active Participants (2005-11)

Year	Pension only	Welfare only	Pension and welfare	Total
2005	953	2,003	5,803	8,759
2006	956	1,959	5,885	8,800
2007	969	1,966	5,980	8,915
2008	1,000	1,936	5,949	8,885
2009	926	1,653	6,013	8,592
2010	920	1,476	6,236	8,632
2011	929	1,472	6,286	8,687

Source: Form 5500 Analysis Files.

Table 9. Matching Pension and Welfare Filings—Sponsor Fractions; Sponsors of at Least One Plan with 1,000+ Active Participants (2005-11)

Year	Pension only	Welfare only	Pension and welfare	Total
2005	10.9%	22.9%	66.3%	100.0%
2006	10.9%	22.3%	66.9%	100.0%
2007	10.9%	22.1%	67.1%	100.0%
2008	11.3%	21.8%	67.0%	100.0%
2009	10.8%	19.2%	70.0%	100.0%
2010	10.7%	17.1%	72.2%	100.0%
2011	10.7%	16.9%	72.4%	100.0%

Source: Form 5500 Analysis Files.

As expected, the match rate among employers of plans with at least 1,000 active participants is greater than among smaller employers. For 2011, the match rate is 72%. Further restricting the analysis to single-employer plans, the 2011 match rate is 83% (not shown).

Since the match rate is well below 100% even for very large employers that sponsored single-employer plans only, we conclude that Form 5500 filings do not robustly support such statements as “X% of employers that sponsored a pension plan also sponsored health benefits.” Therefore, the analysis below centers on the benefit packages among the subset of employers for which both pension and welfare filings could be located.

Longitudinal Matching

To study changes over time in the composition of employer benefit packages, we attempted to match plan filings over time using employer cluster IDs. Table 10 shows longitudinal match rates for pension and for welfare plans by plan size and year. The bottom panel indicates that between 77% and 97% of employers that filed one or more welfare plan Forms 5500 in a certain year also filed such Forms 5500 in the prior year.¹² Match rates tend to be higher for larger plans. The top panel shows

¹² These match rates are lower bounds because plans with zero participants at the end of the plan year were excluded.

longitudinal match rates for pension plans. Overall, 81%-98% of employers that filed one or more pension plan Forms 5500 in a certain year also filed such Forms 5500 in the prior year. The exception is 2010, but its low match rate is mostly caused by the fact that the 2009 Pension Research File contained a sample of small pension plan filings, rather than the universe as it did in 2010. Indeed, the 2010 match rate for plans under 100 participants is only 9%, whereas rates for larger plans do not appear affected by small plan sampling up to 2009.

Table 10. Longitudinal Match Rates for Pension and Welfare Plan Sponsors (2006-11)

Year	Number of plan participants			Total
	1-99	100-999	1,000+	
Pension plans				
2006	80.9%	94.6%	97.5%	87.1%
2007	81.4%	95.0%	97.4%	87.5%
2008	82.1%	95.0%	97.3%	87.8%
2009	82.2%	88.8%	93.4%	85.4%
2010	9.0%	86.7%	96.0%	15.6%
2011	91.8%	97.6%	98.1%	92.3%
Welfare plans				
2006	84.9%	87.0%	96.7%	88.4%
2007	85.4%	87.1%	96.2%	88.5%
2008	87.5%	88.5%	96.5%	89.9%
2009	76.8%	82.5%	94.3%	83.6%
2010	79.6%	89.2%	95.7%	88.7%
2011	87.7%	90.8%	97.4%	91.6%

Source: Form 5500 Analysis Files.

Note: Plan size measured by total number of participants in all pension or all welfare plans of the employer.

4. ANALYSIS OF MULTIPLE BENEFIT OFFERINGS

Different filing requirements for pension and welfare plans pose a major obstacle to an analysis of employer benefit packages. If no employer match is found between pension filings and welfare filings, it is typically not possible to determine whether the employer does not offer a benefit type or whether the lack of a match is due to filing requirements or data limitations. We believe Form 5500 data do not support the calculation of such statistics as the fraction of companies that offer pension benefits only or welfare benefits only.¹³

In light of the above limitations, we address the following areas. First, we cross-sectionally analyze benefit packages among the subset of employers for which both pension and welfare filings could be located. Second, we conduct a longitudinal analysis of pension benefit packages to shed light on benefit changes around the time an employer freezes a DB pension plan.

Benefit Offerings by Employers with Both Pension and Welfare Plans

Table 11 shows combinations of benefits offered in 2011 by employers for which both pension and welfare filings were found. Excluded from this analysis are almost 7,000 employers whose largest welfare plan covered fewer than 100 participants, because the small welfare plan filing exemption implies those employers may not be representative of other employers with fewer than 100 welfare plan participants.¹⁴ The subset under analysis consists of almost 37,000 employers which jointly covered approximately 48 million pension and 105 million welfare participants. The “participants” column in Table 11 refers to the greater of pension and welfare participants.

In Table 11 the focus is on DB plans, DC plans, health benefits, life insurance, and long-term disability benefits. More than one-half (59%) of employers that submitted pension and welfare filings offered a DC plan, health benefits, life insurance, and long-term disability benefits. These employers covered approximately 34% of participants in the analysis subset. More than one-half of participants (53%) worked at the 11% of employers that covered all benefit types under consideration—a DB plan, DC plan, health benefits, life insurance, and long-term disability insurance. As noted earlier, a given employee may not receive all benefits that an employer

¹³ On a separate note, Form 5500 filings provide information on the types of benefits that an employer offers, but they do not specify which employees are covered by such benefits. For example, an employer may offer long-term disability insurance to all its employees whereas only a subset of its employees is covered by health insurance. Its consolidated Form 5500 welfare filing would report the total number of participants only and not the number covered by health insurance.

¹⁴ Employers whose largest welfare plan covered fewer than 100 participants were disproportionately likely to offer and self-insure health benefits and may not be representative of other employers with fewer than 100 welfare plan participants. Also excluded are employers that did not file any Form 5500, about 530,000 employers that submitted pension filings only, and about 8,500 employers that submitted welfare filings only—see Table 6.

sponsors. Long-term disability benefits were offered by 76% of the employers in the analysis subset, compared with 93% that offered health benefits and 91% that offered life insurance.

Table 11. Benefit Packages Offered to Subsets of Employees by Employers That Submitted Both Pension and Welfare Filings (2011)

	DB plan	DC plan	Health benefits	Life insurance	Long-term disability benefits	Sponsors	Participants
		x				0.6%	0.3%
		x			x	0.3%	0.0%
		x		x		2.0%	0.3%
		x		x	x	3.0%	0.9%
		x	x			5.6%	1.3%
		x	x		x	1.0%	0.2%
		x	x	x		12.7%	2.7%
		x	x	x	x	58.6%	34.5%
	x					0.1%	0.2%
	x				x	0.0%	0.0%
	x			x		0.1%	0.0%
	x			x	x	0.0%	0.0%
	x		x			0.3%	0.2%
	x		x		x	0.0%	0.0%
	x		x	x		0.6%	0.7%
	x		x	x	x	0.6%	2.2%
	x	x				0.2%	0.5%
	x	x			x	0.0%	0.1%
	x	x		x		0.2%	0.3%
	x	x		x	x	0.4%	0.2%
	x	x	x			0.6%	0.7%
	x	x	x		x	0.2%	0.3%
	x	x	x	x		1.3%	1.3%
	x	x	x	x	x	11.5%	53.0%
Sponsors	16.2%	98.2%	93.1%	90.9%	75.7%	100.0%	
Participants	59.8%	96.6%	97.2%	96.2%	91.5%		100.0%

Source: Form 5500 Analysis Files.

Note: Participants measured as the greater of participants in pension or welfare plans. Benefits may not be available to all employees.

Table 12 shows the prevalence of life insurance and long-term disability benefits offerings among DC plan sponsors from 2005 through 2011. Table 12, Table 13, and Table 18 present both unweighted and participant-weighted figures. Unweighted figures are based on sponsors as the unit of observation; participant weights are equal to the number of active participants (with a balance; see footnote 8 on page 4) in DB or DC plans, depending on the context.

Table 12. Life Insurance and Long-Term Disability Benefits Offered by DC Plan Sponsors, by Year

	Life insurance only	Long-term disability only	Both	Neither	Total
Unweighted (sponsor level)					
2005	20.5%	2.1%	68.3%	9.1%	100.0%
2006	19.8%	2.1%	69.4%	8.7%	100.0%
2007	19.1%	1.8%	70.5%	8.5%	100.0%
2008	19.0%	2.7%	69.4%	8.9%	100.0%
2009	16.7%	2.0%	73.2%	8.0%	100.0%
2010	16.9%	1.6%	74.2%	7.4%	100.0%
2011	16.5%	1.6%	74.8%	7.2%	100.0%
Weighted by DC plan participants					
2005	7.9%	1.1%	87.2%	3.8%	100.0%
2006	7.5%	1.5%	87.8%	3.2%	100.0%
2007	6.9%	1.1%	88.3%	3.6%	100.0%
2008	7.2%	1.6%	87.5%	3.7%	100.0%
2009	6.4%	1.2%	87.7%	4.8%	100.0%
2010	6.2%	1.0%	89.0%	3.8%	100.0%
2011	5.9%	0.8%	89.6%	3.6%	100.0%

Source: Form 5500 Analysis Files.

Note: Restricted to sponsors of at least one welfare plan with 100 or more active participants.

Most DC plan sponsors offered both life insurance and long-term disability benefits, and that has been increasingly the case over time: in 2011, 75% of DC plan sponsors offered both benefit types, up from 68% in 2005. Similarly, the share of DC plan participants whose employer sponsors both life insurance and long-term disability benefits rose from 87% in 2005 to 90% in 2011. It was more common to offer life insurance only than long-term disability benefits only.

Table 13 shows the prevalence of life insurance or long-term disability benefits offerings among DB plan sponsors from 2005 through 2011. The figures and trends are similar to those among DC plan sponsors, though the prevalence of offering both life insurance and long-term disability benefits is slightly higher than among DC plan sponsors, whereas the participant coverage fractions are slightly lower. However, Table 13 may not provide a full view because DB plans may include features that provide financial protection against employee death or disability, so that participants may receive life insurance or long-term disability benefits without a separate plan for such benefits. We return to this issue in the next section.

Table 13. Life Insurance and Long-Term Disability Benefits Offered by DB Plan Sponsors, by Year

	Life insurance only	Long-term disability only	Both	Neither	Total
Unweighted (sponsor level)					
2005	16.5%	2.3%	72.5%	8.6%	100.0%
2006	15.6%	2.2%	74.3%	7.9%	100.0%
2007	15.1%	2.1%	75.4%	7.4%	100.0%
2008	15.4%	3.1%	73.4%	8.1%	100.0%
2009	13.2%	2.2%	77.1%	7.5%	100.0%
2010	13.4%	1.7%	77.4%	7.4%	100.0%
2011	13.3%	1.8%	77.6%	7.3%	100.0%
Weighted by DB plan participants					
2005	11.1%	1.3%	82.5%	5.0%	100.0%
2006	10.8%	1.6%	83.4%	4.2%	100.0%
2007	11.7%	1.1%	82.9%	4.3%	100.0%
2008	11.2%	1.1%	83.2%	4.4%	100.0%
2009	10.5%	1.1%	82.6%	5.8%	100.0%
2010	8.8%	1.4%	84.5%	5.3%	100.0%
2011	8.2%	1.1%	85.2%	5.5%	100.0%

Source: Form 5500 Analysis Files.

Note: Restricted to sponsors of at least one welfare plan with 100 or more active participants.

Table 14 shows the prevalence of life insurance and long-term disability benefits in 2011 among sponsors of DC plans, by DC plan size. Sponsoring levels of life insurance and long-term disability benefits generally increased with DC plan size. Table 15 indicates that the same patterns held among sponsors of DB plans, by DB plan size.

Table 14. Life Insurance and Long-Term Disability Benefits Offered by DC Plan Sponsors, by DC Plan Size (2011)

Plan size	Life insurance only	Long-term disability only	Both	Neither	Total
1-99	28.5%	2.1%	57.4%	12.0%	100.0%
100-199	19.6%	1.8%	70.8%	7.9%	100.0%
200-499	13.1%	1.4%	79.7%	5.7%	100.0%
500-999	9.3%	1.3%	84.5%	4.9%	100.0%
1,000-1,999	6.8%	1.3%	88.0%	3.8%	100.0%
2,000-4,999	4.5%	1.2%	90.5%	3.9%	100.0%
5,000+	4.2%	0.8%	91.7%	3.3%	100.0%
All	16.5%	1.6%	74.8%	7.2%	100.0%

Source: Form 5500 Analysis Files.

Note: Restricted to sponsors of at least one welfare plan with 100 or more active participants.

Table 15. Life Insurance and Long-Term Disability Benefits Offered by DB Plan Sponsors, by DB Plan Size (2011)

Plan size	Life insurance only	Long-term disability only	Both	Neither	Total
1-99	15.9%	1.1%	74.7%	8.3%	100.0%
100-199	15.3%	1.7%	76.2%	6.8%	100.0%
200-499	13.6%	1.5%	77.2%	7.7%	100.0%
500-999	14.3%	2.9%	75.5%	7.3%	100.0%
1,000-1,999	9.7%	2.6%	79.3%	8.4%	100.0%
2,000-4,999	8.7%	2.6%	82.6%	6.1%	100.0%
5,000+	9.3%	1.0%	84.6%	5.1%	100.0%
All	13.3%	1.8%	77.6%	7.3%	100.0%

Source: Form 5500 Analysis Files.

Note: Restricted to sponsors of at least one welfare plan with 100 or more active participants.

Benefit Changes around the Time of a DB Pension Plan Freeze

The remaining analysis is restricted to employers for which pension filings could be matched over time. Insofar as welfare benefits are analyzed, the sample is further restricted to employers for which pension and welfare benefits could be matched to each other and over time.

As has been widely reported elsewhere, many American employers have phased out DB plans in favor of DC plans.¹⁵ The transition has potential implications for not only retirement income, but also for financial protection against death or disability of the worker. The Bureau of Labor Statistics reported that in 2010, 71% of private-industry workers with traditional DB plan coverage had access to disability benefits as part of their DB plan. Also, 91% of such workers were in a plan that featured pre-retirement survivor benefits.¹⁶ This section attempts to shed light on the extent to which employers that freeze their DB plan may strengthen their offerings of replacement benefits, including DC plans, life insurance, or long-term disability benefits.

Table 16 shows the fractions of DB plans (top panel) and their participants (bottom panel) that are not frozen, newly frozen, or previously frozen. According to the *2011 Instructions for Form 5500*, a plan is frozen if no participant accrues any benefits as of the last day of the plan year.¹⁷ Unless terminated, a frozen plan typically

¹⁵ For example, annual Private Pension Plan Bulletins (accessible at <http://www.dol.gov/ebsa/publications/form5500dataresearch.html>) indicate that the number of active participants in DB plans declined from 25 million in 1993 to 17 million in 2010, whereas those in DC plans increased from 40 million in 1993 to 73 million in 2010.

¹⁶ Statistics based on the National Compensation Survey; see <http://www.bls.gov/ncs/ebs/detailedprovisions/2010/ownership/private/table33a.pdf>.

¹⁷ Plans in which no participants accrue benefits are "hard frozen," as opposed to "soft-frozen" plans which are closed to new employees but continue to accrue

continues to submit Form 5500 filings for some time because it continues to pay benefits to retired workers and continues to promise benefits to current workers who in prior years accrued rights to future benefits. The Form 5500 introduced an indicator for whether a plan is frozen in 2007, and the table therefore starts with 2008.

Table 16. Previously and Newly Frozen DB Plans (2008-11)

Year	Not frozen	Newly frozen	Previously frozen	Total
Plan-weighted				
2008	84.0%	4.3%	11.7%	100.0%
2009	77.9%	9.3%	12.8%	100.0%
2010	73.2%	4.5%	22.3%	100.0%
2011	74.4%	4.6%	21.0%	100.0%
Weighted by active DB plan participants				
2008	94.5%	1.8%	3.7%	100.0%
2009	90.8%	4.1%	5.1%	100.0%
2010	90.7%	1.5%	7.9%	100.0%
2011	89.9%	1.0%	9.1%	100.0%

Source: Form 5500 Analysis Files.

Note: Sample restricted to plans for which the prior year's filing was located. Weighted by plan weight and (in the bottom panel) by the number of active DB plan participants.

The fraction of DB plans that are not frozen decreased from 84% in 2008 to 74% in 2011. The incidence of DB plan freezes was between 4% and 5% in 2008 and 2010-11, but peaked at over 9% in 2009, possibly because of the recession in that year. Weighted by plan participants, 90% of active plan participants continued to accrue benefits, suggesting that frozen plans tend to be smaller, on average, than plans that continue to accrue benefits.

As shown in Table 17, differences across industry sectors existed. In 2011, DB plans in utilities were more likely continuing to accrue benefits than those in other sectors, whereas DB plans in manufacturing and retail trade were more likely to be frozen. Separately, participants in the agriculture and mining sectors were the most likely to have had their DB plan frozen.

benefits to existing employees. The Form 5500 does not permit identifying soft-frozen plans; our analysis applies to hard freezes only.

Table 17. Previously and Newly Frozen DB Plans, by Industry (2011)

Year	Not frozen	Newly frozen	Previously frozen	Total
Plan-weighted				
Agriculture	73.1%	5.1%	21.8%	100.0%
Mining	71.7%	4.3%	24.1%	100.0%
Construction	74.9%	5.4%	19.7%	100.0%
Manufacturing	64.3%	4.0%	31.7%	100.0%
Transportation	75.0%	2.7%	22.4%	100.0%
Communications and information	70.4%	3.4%	26.2%	100.0%
Utilities	90.2%	0.9%	9.0%	100.0%
Wholesale trade	70.6%	5.2%	24.2%	100.0%
Retail trade	67.1%	5.0%	27.9%	100.0%
Finance, insurance & real estate	77.3%	4.5%	18.3%	100.0%
Services	77.8%	4.8%	17.4%	100.0%
Misc. organizations	68.4%	3.2%	28.4%	100.0%
Total	74.4%	4.6%	21.0%	100.0%
Weighted by active DB plan participants				
Agriculture	82.8%	0.8%	16.4%	100.0%
Mining	83.3%	5.9%	10.8%	100.0%
Construction	98.9%	0.3%	0.8%	100.0%
Manufacturing	89.2%	1.4%	9.4%	100.0%
Transportation	92.4%	0.2%	7.4%	100.0%
Communications and information	88.5%	0.2%	11.2%	100.0%
Utilities	99.3%	0.1%	0.6%	100.0%
Wholesale trade	86.6%	0.8%	12.6%	100.0%
Retail trade	92.4%	0.1%	7.5%	100.0%
Finance, insurance & real estate	92.8%	0.6%	6.6%	100.0%
Services	84.3%	1.7%	14.0%	100.0%
Misc. organizations	87.9%	1.0%	11.1%	100.0%
Total	89.9%	1.0%	9.1%	100.0%

Source: Form 5500 Analysis Files.

Note: Sample restricted to plans for which the prior year's filing was located.

Weighted by plan weight and (in the bottom panel) by the number of active DB plan participants.

At issue is to what extent frozen DB coverage was replaced with other benefits. We therefore focus on sponsors with at least one plan that was newly frozen in 2008, 2009, 2010, or 2011, and tabulate various metrics for the years immediately prior to, during, and immediately after the year in which a DB plan was frozen. See Table 18; the top panel represents statistics for sponsors of newly frozen DB plans, the bottom panel for DB plan participants at those sponsors.

Table 18. Plan Sponsorship Metrics Before and After a DB Plan Freeze

	Year before freeze	Year of freeze	Year after freeze
Unweighted (sponsor level)			
DC plan sponsorship	70.3%	72.5%	83.6%
Average number of DC participants			
— in existing DC plans	1,600	1,646	2,464
— in new DC plans		323	440
— in all DC plans	1,559	1,548	2,212
Median per-participant employer contribution			
— to existing DC plans	1,631	1,525	1,716
— to new DC plans		1,367	1,407
— to all DC plans	1,609	1,514	1,659
Median participant contribution			
— to existing DC plans	3,317	3,160	3,289
— to new DC plans		2,458	2,331
— to all DC plans	3,316	3,089	3,164
Sponsorship of life insurance	91.3%	91.8%	92.8%
Average number of life insurance participants	4,074	4,044	4,405
Sponsorship of long-term disability benefits	79.4%	80.8%	84.7%
Average # of LT disability benefit participants	3,851	3,913	4,042
Sponsorship of health benefits	91.0%	91.2%	94.0%
Average number of health benefit participants	4,373	4,442	4,522
Weighted by active DB plan participants			
DC plan sponsorship	92.9%	94.4%	96.8%
Median per-participant employer contribution			
— to existing DC plans	2,278	2,440	2,917
— to new DC plans		1,171	1,579
— to all DC plans	2,269	2,440	2,848
Median participant contribution			
— to existing DC plans	5,020	4,737	4,830
— to new DC plans		2,974	3,272
— to all DC plans	4,942	4,737	4,830
Sponsorship of life insurance	96.6%	97.1%	98.3%
Sponsorship of long-term disability benefits	95.5%	96.5%	97.3%
Sponsorship of health benefits	98.9%	99.1%	99.4%

Source: Form 5500 Analysis Files.

Note: Number of participants and per-participant contributions are conditional on the presence of a corresponding plan. DC plan participants are defined as active participants with a balance. Number of participants in life insurance, long-term disability benefits, or health benefits may include participants in other welfare plans. Dollar amounts have been converted into 2011 dollars.

Most sponsors of newly frozen DB plans also sponsored a DC plan, even before the year of the freeze. The DC sponsorship rate increased slightly in the year of the DB plan freeze, from 70% to 73%, and subsequently increased further to 84% in the year following the freeze. The average number of participants in both previously existing and newly established DC plans increased, and indeed, the fraction of DB plan participants who were covered by a DC plan climbed from 93% in the year before the freeze to 94% in the year of the freeze and 97% the following year.

The median per-participant employer contribution to previously existing DC plans dropped by about \$100 as a DB plan was frozen, to \$1,525 per participant in the year of the freeze from \$1,631 the prior year (in 2011 dollars), but subsequently increased by almost \$200 to \$1,716 the following year. Weighted by plan participants, employer contributions increased both during and after the freeze. The participant-weighted increase in median employer contributions was particularly strong in the year following the freeze, from \$2,440 to \$2,917. It thus appears that employers (at least partially) compensated for reduced DB accruals through higher DC plan contributions.

Turning to welfare benefits, the analysis is further restricted to employers with pension and welfare filings that could be matched to each other and over time.¹⁸ In the year following a DB plan freeze, employers appear to have expanded life insurance, long-term disability benefits, and health benefits to more employees, possibly also in part to compensate for reduced DB plan benefits. For example, sponsorship of life insurance increased from 91% in the year before a DB plan freeze to 93% in the year following a DB plan freeze, and the average life insurance plan size increased from 4,074 to 4,405 participants. Similar trends were present for long-term disability benefits and health benefit coverage after DB plan freezes.

¹⁸ The welfare plan findings in Table 18 need to be interpreted with caution; companies often submit a single Form 5500 for multiple welfare benefits and the number of participants of specific benefit types may be overstated, because only a single participant count is then available for total participants across all benefit types. Not all participants may in fact receive, say, health benefits. This caution applies especially to participant-weighted figures, because large companies tend to sponsor all listed benefit types for at least some of their employees, and those sponsorships could be attributed to all employees.

5. CONCLUSION

It has been widely documented that many American employers have phased out DB pension plans in favor of DC plans. In addition to the direct effect of this action on the employees' retirement income, one may also suspect to find an impact on the availability of other benefits, such as disability or pre-retirement survivor benefits, since these can be features of DB plans which would not be reported on Form 5500 filings. It is possible, for example, that the phasing out or "freezing" of DB plans in favor of DC plans can motivate employers to provide additional welfare offerings in order to smooth total employee compensation. The present report attempts to shed light on the interaction between pension and welfare benefits and document the evolution over the years 2005-11. This report represents, to our knowledge, the first attempt to combine Form 5500 pension and welfare filings for this purpose.

However, as we have noted, the data are not necessarily ideal for learning about benefit packages. Notable shortcomings include that the data at hand are measured at the sponsor level (rather than employee level), that a variety of filing exemptions exist, and that some benefits may be provided through external sponsors (for example through unions or MEWAs). Among others, we believe that the usability of Form 5500 filings for the study of benefit packages would be greater if welfare plans were required to separately specify the number of participants of each benefit type.

Nevertheless we find the data useful to investigate benefit packages among the subset of employers for which both pension and welfare filings could be located. For both DC and DB plans we see that the prevalence of welfare plans increased over time. That is, we find that, over time, employers that offer a DC or a DB plan became more likely to also offer a welfare plan. We also note that the larger the number of participants in its pension plan the more likely it is for an employer to also offer a welfare plan.

Regarding the replacement of DB plans by DC plans, we show that incidence of DB plan freezes was elevated in 2009—when a recession took place—compared to 2008 and 2010-11. In addition we show that the likelihood to freeze a plan varied by industry; for example firms in manufacturing and retail trade appeared to be more likely to freeze their DB plans than those in other industries. Finally, we find some evidence that employers (at least partially) compensated employees for DB freezes through expanded DC plan coverage, higher DC plan contributions, and expanded sponsorship of life insurance, long-term disability benefits, and health benefits.

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