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Future Retirement Income Security Needs Defined Benefit Pensions

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Progressive Ideas for a Strong, Just, and Free America

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Introduction

Are defined benefit (DB) pension plans dead? They certainly look dead. Last year, several airlines famously dropped their DB plans onto the government-backed insurer (the Pension Benefit Guaranty Corporation). Meanwhile, in the first week of 2006, the International Business Machines Corp. (IBM) followed the lead of the Sears Holding Corp., Verizon Communications and over 67 other companies, which froze or closed their DB plans to new hires in 2005. IBM and the other "DB freezers" have instead opted for 401(k) plans, which shift the risk of preparing for retirement from the company to the individual worker. Now, retirement savings depend on workers' ability to save regularly, invest wisely, and at low costs.

However, these trends lead to the misleading conclusion that DB plans are going the way of the dinosaur. Quite the contrary, many employers continue to offer these plans. Most Fortune 500 companies, public sector employers, new small professional firms (Frieswick 2002), schools, and hospitals all maintain DB plans. Additionally, a small number of employers that replaced DBs with defined contribution (DC) plans, such as the state of Nebraska, are now switching back. The truth is employers will continue to sponsor DB plans because both employers and workers often prefer them for sound reasons.

Moreover, the retirement landscape is characterized by three major problems, which can be better addressed by well regulated DB plans than by defined contribution (DC) plans. For one, many private sector employees are not covered by a pension plan. Second, retirement wealth creation has proceeded rather unequally, leaving many low and moderate income families with too few savings. And third, increasingly families are exposed to more and more risks when saving for retirement, which can mean that they will not have the retirement income that they expected.

In all three regards, DB plans continue to offer advantages not shared by DC plans, such as 401(k)s. For one, DB plans automatically cover every eligible worker. This universality cannot be duplicated in the DC world, unless employers are required to contribute for every worker. Not surprisingly, then, DB plan participation is associated with rising pension coverage in general to a larger degree than DC plan participation. In addition, DB plans are more efficient than DC plans. As a result, DC plan participants pay retail marketing, management, and annuitization fees — DBs pay wholesale, which means that more of each dollar saved will actually go towards retirement benefits under a DB plan. Moreover, workers are protected from

a number of important risks under DB plans: idiosyncratic risk, market risk, and longevity risk. DBs are professionally invested, which substantially reduces the risk of making unwise or unlucky investment decisions. Also, DB plans have a long time horizon, which allows them to ride out bad market performances, thus reducing market risk. And DB plans typically pay a monthly lifetime benefit upon retirement, thereby reducing the risk that a worker runs out of savings.

DB plans, though, are not only beneficial for employees. Employers can use them as an important personnel management tool. This is particularly true in companies that are in need of high skilled labor. Moreover, as the retirement of the Baby Boom generation creates a labor shortage of skilled workers for many firms, such tools to retain an important resource will gain in relevance.

II. The Importance of Employer Pensions to Workers

The only hope for older middle income Americans (the 60 percent in the three middle quintiles $20,000-70,000) to have retirement security is a diversified portfolio of retirement wealth to produce income from different sources: from Social Security, from DB type coverage, and from personal assets, including DC plans. Elderly households in the middle of the income distribution (third and fourth quintiles) receive 14.5 percent and 24.9 percent of their total retirement income respectively from private and public pensions (see Table 1). Besides Social Security, these are the most important sources of income to these middle class elderly households. In contrast, the elderly households at the highest 20 percent obtain much more of their income from earnings and wealth: 38 and 18.9 percent respectively. Whereas, the middle-class elderly obtain only 3.6-9.8 percent of their pension income from personal wealth.[1] Employer pensions are the key to middle class status in old age.

Table 1
Employer Pensions Are Important for Middle Class Retirees

	First	Second	Third	Fourth	Fifth
Total percent	100.0	100.0	100.0	100.0	100.0
Percentage from source:					
Social Security (including Railroad Retirement)	82.9	84.5	67.5	47.6	19.9
Government and private employee pensions	3.2	6.3	14.5	24.9	20.4
Earnings	1.1	2.3	7.0	14.7	38.4
Income from assets (including savings from retirement accounts)	2.4	3.6	7.4	9.8	18.9
Public assistance and other sources	10.4	3.3	3.7	3.1	2.5
Number (thousands)	5,244	5,244	5,241	5,245	5,244

Notes: Total income to each quintile by source of income of household units with member over Age 55. Quintile upper limits are: $9,721, $15,181, $23,880, $40,982. Source: Table 7.5 Percentage distribution, by marital status and quintiles of total money income www.ssa.gov/policy/docs/statcomps/income_pop55/2002

The bad news for the middle class, according to the Census Department's survey of workers (the Current Population Survey), is that the share of workers (year round and full time) whose employers sponsored a pension plan has been falling for years: most recently from 62.7 percent in 2003 to 61.8 percent in 2004. Pension participation of workers who work full time and for an entire year also fell from 54.1 to 53.4 percent in 2003 to 2004 (Purcell 2005a). The coverage and participation rates have not changed significantly since 1984.

[1] The poorest households rely on Social Security and public assistance almost exclusively – 94 percent for the first quintile and 86 percent for the second – and have very little income from employer based pension sources.

The coverage rates are larger than actual participation rates because people can be disqualified because for too few years of service or hours of work per week. Since 401(k) plans are voluntary, many people decide not to reduce their take-home pay to fund retirement. Though this is not the major reason people are excluded from 401(k) plans at work (Purcell 2005b).

The Department of Labor's survey of private employers reports slightly increasing rates of pension coverage and participation — no decrease. The 2005 National Compensation Survey (NCS) shows that 60 percent of workers in the private sector have access to (i.e., are offered) a retirement plan of some sort and that 50 percent of workers in the private sector participate in a retirement plan. (The comparable figures from the workers' survey [of those within the same age range], the CPS, are 57 percent and 46 percent.) The higher figures in the NCS may be caused by businesses probably having a better idea of who is covered than workers do.[2]

Bottom line: Private sector workers' access to pension is stagnating; participation rates have hovered around 50 percent of the work force for about 20 years. Obviously, the explosion in 401(k) coverage (discussed below) has not helped workers get access to pension plans; the growth in 401(k) plans has not improved pension coverage rates. However, growth in DB coverage boosts overall pension coverage rates; this is an important lesson for policy makers.

III. The False Divide: DB vs. DCs

The common view of a dualistic pension world is cartoonish. Almost all reports on pension trends reproduce variations of the same graph. The graph shows DB plans falling and DC plans rising. The graph suggests that DBs are declining into oblivion and that DCs are replacing them as DB plans have outlived their purposes, with DC growth as a natural response to economic change. But, if the DB world consisted of union workers in dying industries standing separate from the DC world of diverse, dynamic non-union workforces, then total pension participants would equal the sum of those covered by DBs and DCs. Increasingly, many workers are covered by both kinds of plans and thus the fact that DCs are supplementing DB plans changes the conclusion that their growth means that DCs are replacing DB plans.

Surveys of workers do not ask enough questions to untangle the double counting. However, the double counting problem can be partially solved by examining firms and the plans they sponsor. Among 724 firms (that remained in existence between 1981 and 1998 and sponsored a pension in all years — though not a representative sample because it does not include new firms;

[2] Also, many CPS respondents are not the actual worker but his or her spouse or other relative and may not know about the employee's pension plans.

these firms are often the largest and most profitable) the most popular plan structure in 1981 was a DB plan standing alone; 43.9 percent of firms offered this structure; 13.8 percent were offering only DC plans, and 42 percent offered both DBs and DCs. By 1998, among the same firms, only 11.2 percent offered just a DB plan and those offering only a DC plan rose to only 17.1 percent. Overwhelmingly, the most common pension design adopted was the combination of a DB and DC: 71.7 percent of large firms that have been in existence since 1981 in 1998 sponsored both types, compared to 42 percent in 1981 (Ghilarducci and Sun 2005). The trend shows why pension participation is not correlated with DC coverage: DCs are mainly supplements to DBs. Therefore, inhibiting the growth of DB plans inhibits the expansion of pension coverage.

IV. DBs Raise Pension Coverage More than DCs in the Private Sector

Despite the less than welcoming regulatory environment, DB coverage has been rather stable. Although, DB coverage for workers in the goods-producing sector has decreased in the last seven years (1999-2005); for union and service industry workers (see Table 2) and for white and blue collar workers (see Table 2), DB coverage rose during this time, offsetting that decrease to a virtually zero percent change in DB coverage rates from 1999 to 2005.

If DC coverage and participation growth expanded access to pension plans rather than replaced or supplemented an already existing plan, then growing DC rates should pull up total pension coverage and participation rates. With overall coverage rates increasing by only two percentage points from 1999 to 2005, that clearly is not happening. Participation rates for all workers in all pension plans rose 4.2 percent (see Table 1 that displays data from the employers' survey — the National Compensation Survey) and DC coverage rates grew 19.4 percent.

Union workers had one of the largest increases in pension coverage rates — and this group had already started from a high base (79 percent participated compared to an average of 54 percent for non-union workers) and also had one of the largest increases in DB coverage, 2.9 percent, and a sizable increase in DC coverage with over 10 percent. Because unions almost always bargain DC plans to complement DBs, we can be fairly certain that in this case, the increase in the DB rate boosted pension access. This relationship holds up in an evaluation of the correlation between general pension and DB participation rates.

Table 2
Percent of all Private Sector Workers Participating In All Plans

	Coverage Rates in All Pension Plan		Coverage Rates in DB Pension Plan		Coverage Rates in DC Pension Plan		Growth from 1999-2005 (in percent)		
	a	b	c	d	e	f	g	h	i
	1999	2005	1999	2005	1999	2005	Overall Pension Coverage	DB Coverage	DC Coverage
All workers	48%	50%	21%	21%	36%	43%	4.2%	0.0%	19.4%
Non union members	44	46	16	15	35	41	4.5%	-6.3%	17.1%
Larger firms, over 100	64	67	37	36	46	53	4.7%	-2.7%	15.2%
Goods-producing	61	64	36	32	44	50	4.9%	-11.1%	13.6%
Service industries	44	47	17	18	34	39	6.8%	5.9%	14.7%
Full time workers	56	60	25	25	42	50	7.1%	0.0%	19.0%
Union members	79	85	70	72	39	43	7.6%	2.9%	10.3%
Small firms, 0-99 employees	34	37	8	9	27	32	8.8%	12.5%	18.5%

Notes: All figures are in percent. Categories are ranked in descending order of growth in participation rate. Source is National Compensation Survey: Employee benefits in private industry, author's computations from data available on the website: www.nbls.gov/ncs/ebs.

The evidence suggests that increases in DC participation rates are not correlated with increases in overall coverage, whereas increases in DB participation rates are. A calculation of the correlation between the overall expansion of pension participation and DB participation rates (column g and h) is a strongly positive 79 percent. Nevertheless, the correlation between all pension and DC growth (column g and i) is a negative10 percent. This means that groups with the highest growth rates in DC plans are not the most likely to experience a significant increase in pension access. The highest growth rate in DB coverage was 12.5 percent for workers in small firms and this group happened also to have the largest increase in overall growth rates — a boost of 8.8 percent.

Likewise, pension coverage rates by occupations for 2003 and 2005 show DB rates rose the most for white-collar workers, even though they already had high levels of participation rates in 2003. The levels were 59 percent for white collar and 50 percent for blue collar, compared to those in service occupations at 21 percent. The DC rates grew fastest for those with the lowest levels of participation (service workers). That the DC growth was correlated with

overall growth rates in coverage is due to the base being so low in service occupations. (See Table 3.)

The results indicate that DBs expand pension coverage; DCs do not. Why is that? The answer may be found in the way pension plans operate. When firms adopt new DB plans they cover workers who are not already covered. This is largely a feature of universal coverage. Universal coverage of all eligible employees is one of the advantages of DBs. In comparison, when a firm offers a DC plan, it is incumbent on the employee to sign up for participation in a DC plan (opt-in option) or not to contribute, even if they are automatically involved (opt-out option). This means it is likely that pension access increases more where DB coverage rate growth is the highest.

Table 3
Pension Coverage Rates Are High Where DBs are Growing

	Pension Participation Rates in 2003			Growth between 2003 and 2005		
	All pension types	DB	DC	All	DB	DC
White collar	59	22	51	3.4%	9.1%	3.9%
Blue collar	50	24	38	2.0%	8.3%	0.0%
Service occupations	21	7	16	4.8%	0.0%	12.5%

Notes: All figures are in percent. Author's calculations based on National Compensation Survey, Employee Benefits in Private Industry.

Just like the survey of employers, the National Compensation Survey, the workers' survey, the Current Population Survey (CPS), also provides evidence for the surprising conclusion that DC coverage does not boost overall access to pensions, but DB coverage does (see Table 4). By examining the pension coverage rates of certain groups of workers, we see that the groups with the highest pension coverage rates are more likely to have DB plans. There is no such correlation with the DC rates. For example, in this sample, all unionized women who earn above average wages have pension coverage. What explains the high rates of pension coverage among these high paid union women? Their DB coverage is 300 times that of the part-timers who have the lowest rates of pension coverage among these subgroups (at 47 percent). Again, looking at the simple correlations between a group's rate of pension coverage and its DB and DC coverage we find the same relationship. A group's DB coverage rate is 94 percent correlated with the overall pension coverage rates of the group.

However, a group's DC coverage rate is only 55 percent correlated with pension coverage rates. Men and women in unions with above average wages are most likely to have DB coverage because the union bargains for DB pensions, and earnings are high enough to trade for pensions. On the other hand, less than half of part time workers have pensions — 37 percent have DCs and only 11 percent have DBs. The type of plan affects the likelihood of being covered. If the type of pension plan dominant for your demographic group is a DC plan, you are more likely not to have a pension at all rather than to have a pension. This is because DCs, despite their much touted attractive traits, have not been used to expand pension coverage.

Table 4
Workers with Pensions Are More Likely to Have DBs Plans

	Pension Coverage Rates	DB	DC
Union Female: Above average wages	100	72	48
Union Male: Above average wages	91	58	56
Female: Above average wages	81	33	63
Union Male	80	36	53
Union Female	78	43	39
Full-time: Above average wages	73	23	62
Male: Above average wages	71	21	61
Married men	64	16	38
Female	59	18	43
Never married women	58	18	28
Married women	58	19	42
Male	56	14	38
Part-time: Above average wages	54	12	50
Full-time	53	16	40
Part-time	47	11	37
Correlations between DB and pension coverage		94%	
Correlations between DC and pension coverage		55%	

Notes: All figures are in percent. Groups pension coverage rates by type of pension ranked by coverage rates. Author's calculations from the 2003 Current Population Survey.

V. DBs are Favored in the Public Sector

DBs are more prominent in the public sector — 90 percent of public employees participate in DB plans. Although a number of public sector employers have added DC options to their DB plans, attempts at DC-only plan structures have been largely unsuccessful. For example, the state of Nebraska and a division of Indiana state government actually abandoned their experiment with DC-only plan structures and switched back to the DB form (Carlson 2005). Participants in state and local government pension plans include more than 14 million workers, which is 10 percent of the U.S. labor force. Another six million participants are government retirees, which constitute over 13 percent of persons over age 65 in the U.S. (Anderson and Brainard 2005).

Many reasons explain the predominance of DBs in the public sector — history, culture, and different types of regulation and unionization. But, fundamentally, the popularity of DBs in the public sector flows from the structure of public sector work and the unique characteristics of the workforce. Public sector workers are more educated than private sector employees and work in many diverse occupations. Private sector firms that need workers who have characteristics similar to public employees (diverse workforce, professional, and more likely female) and have similar production processes and characteristics (such as long-term focus and high degree of service), tend to have DB plans.

Public employers are able to create more stable environments for the demand for their services and the supply of revenue. This unique characteristic, namely to operate in more stable conditions, is difficult to quantify, but it may explain why DBs predominate in the public sector. By the very virtue of their design, DB plans reduce risks people face after they retire. These risk reduction mechanisms may appeal to some employers and workers more than others.

VI. Pension Wealth Grows Faster and More Equitably Under DB Plans

Under DC plans, workers do not save consistently enough, and when they do, they do not tend to save substantial sums. For instance, the median retirement account would buy less than $80 per month for life in 2005. In the aggregate, there is substantial evidence that a comparatively large minority of households nearing retirement do not have enough savings for a decent standard of living in retirement (Butrica, Iams and Smith 2003; Weller and Wolff 2005). That is, workers not only need to participate in a pension plan, but they also need to save enough money in it. Making sure that their saved

dollars are going further will help to improve retirement income security. Under DB plans, saved dollars go generally further than under DC plans for a number of reasons.

All pension experts agree that DBs are more efficiently managed and tend to offer a greater insulation from the primary risks associated with saving for retirement. Management fees tend to be substantially lower in DB plans because they can better take advantage of economies of scale than DC plans. That is, the costs per dollar invested is lower when only one large pool of money is managed, as in DB plans, than when a large number of small account balances is managed, as in DC plans. Under DC plans, the allocation of retirement portfolio assets and the level of fees can crucially affect overall risk-adjusted returns to a pension plan. Individuals are increasingly directing their own 401(k) plan accounts. This means individuals select their assets among a list of for-profit mutual funds which are usually selected by the employer. Individual control often means accumulations are stymied by individuals who make poor investment choices. A 2006 study showed individuals manage "dumb money"; investors tend to invest in mutual funds before they fall in value and sell funds before they peak (Frazzini and Lamont 2006). In addition, typical fees charged to defined contribution accounts can reduce account values by up to 21-30 percent depending on the size of the account (CBO 2004).

DBs earn more than DCs and DB administrative costs are lower. In 2001, the median defined benefit plan returned -3.8 percent compared with -7.3 percent for the median 401(k) plan return. Likewise, in 2000, DBs outperformed DCs by 4.3 percent. Only in the bull market years of 1998-99 did 401(k) plans' median returns exceed those of defined benefit plans. Even worse, companies that only offer a 401(k) plan experienced lower 401(k) returns than the 401(k) plans in companies that offered both defined benefit and defined contribution plans. The explanation is that DB plan assets are professionally managed and that professionalism spills over to the 401(k). 401(k) plans are invested in ways that reduce returns relative to DBs: individuals often direct the investments, 401(k) accounts have more employer stock than DB plans, and DCs have fewer equities and are less likely to be diversified into different kinds of equity funds (Appell 2004). In terms of fees, workers most often pay hefty retail fees for the investment services of the 401(k) managers, whereas DB administration obtains economies of scale reductions (CBO 2004).

Anderson and Brainard (2004) underscored the importance of DBs' comparative efficiency by arguing that state and local government could make no better investment than DB retirement funds because taxpayers' dollars went farther when spent on DBs.

Another way in which DB plans improve retirement wealth is that they prohibit workers' assets against pre-retirement leakages. Many DC plans allow for pre-retirement borrowing or even withdrawal of assets. While these withdrawals are often understandable, they tend to reduce the amount workers will have available upon retirement (see also the discussion below on dead weight losses and plan design).

This phenomenon is described as temptation risk. Temptation risk inhibits DC accumulations. Putting other priorities ahead of retirement savings dooms most people in their attempts to accumulate adequate assets. The median annual salary deferral into a 401(k)-type plan was just $1,896, and thus the median account balance for near retirees (those aged 55 to 64) is fairly low — $23,000, which would yield an inflation adjusted annuity at age 65 in 2005 of about $100 per month (Vanguard 2005). The percentage of people who are covered by 401(k)s who say they cannot afford to save has risen from 1998 to 2003 from less than 15 in 1999 to 19 percent in 2003 (Purcell 2005b: 10). Seventy-two percent of workers have 401(k) plans that allow 401K) loans, which also reduce accumulations) and 10 percent of participants have taken one out; the median outstanding balance is $2,000 (Purcell 2005b: 15).

Not only do beneficiaries under DB plans get to keep more of each dollar saved, incentives to save are also more equitably distributed. Employers receive a tax incentive to contribute to a DB plan in the form of tax deductibility of their pension plan contributions. For 2006, this subsidy is estimated to be $50.4 billion for the federal government (OMB 2006). Because all eligible workers are automatically enrolled and are covered by the same benefit formula, each dollar in retirement savings in a DB plan receives the same tax incentive from the federal government, regardless of a participant's income level.

The same is not true for DC plans. Here, individual contributions are tax deductible. That is, a high income earner, who falls into the 35 percent marginal tax bracket, receives a 35 percent subsidy for each dollar she contributes. In comparison, a low income worker, whose top earnings fall into the 15 percent marginal tax bracket, only receives a 15 percent subsidy for each dollar contributed. The current DC plan structure showers the largest rewards onto those workers who already save the most and the smallest incentives onto those who face the largest retirement income shortfalls (Sperling 2005).

VII. Risk Exposure is Reduced Under DB Plans

A final consideration is risk exposure. By definition, realized risks mean that workers will have less retirement income available than they expected. Put differently, the more protections workers can enjoy against risks associated with saving for retirement, the more money they will ultimately have available for retirement.

The size advantage of DB plans also work to protect employees from a common form of financial risk, so-called idiosyncratic risk, or the risk of making unwise or unlucky investment decisions. DB plans can diversify their assets over a large number of investment options. In fact, the Employee Retirement Income Security Act of 1974 prohibits DB plans from investing more than 10 percent of its assets in one asset. Moreover, large funds can also invest in investment categories that small investors cannot invest in, such as venture capital, which allows for a maximum of asset diversification and thus the maximum level of protection against idiosyncratic risk.

Many DC plan holders face a particular form of idiosyncratic risk, namely the risk of employer default – not unlike many beneficiaries in DB plans. Over 40 percent of 401(k) assets are invested in the employers' own stock (Munnell and Sunden 2004). DCs could easily not hold as much employer sponsored stock, but the fact that they do may be a key reason that firms choose to sponsor 401(k) plans — the firms want a captured buyer of its own stock. Moreover, the Pension Benefit Guaranty Corporation (PBGC) insures most (but not all) DB benefits, which reduces the employer default risk for DB. The health of an employer affects DC plan participants in another way. Specifically, DC participants face the risk that employers may stop or shrink matching contributions. In fact, many employers lowered or stopped matches in the 2001 recession (Munnell and Sunden 2003).

This still leaves the enduring concern if workers can really expect companies to keep DB plan promises made for 40 years in the future. The Pension Benefit Guaranty Corporation (PBGC) was created responding to that longstanding concern. It insures accrued pensions in the event that a plan sponsor can no longer pay for the pension. Premiums to the PBGC are paid by other DB sponsors. The PBGC was not designed for catastrophic losses and pensions collapsing in an entire industry. The premium structure was designed for random idiosyncratic defaults. The agency has enough reserves for projected losses over the next decade or so but faces long term losses if default rates and the lack of new entrants continues. The fate of the PBGC depends crucially on the future growth of DB plans. As long as many DB sponsors exist in the

private sector under current law, there will be enough capital reserves in the system to make the promises from any one company secure. Importantly, no such insurance for the eventuality of employer default exists for DC plans.

Another risk protection of DB plans arises from the fact that there is no finite end to their life span. This affords them some protection against market risk, i.e., the risk that there can be a bear market for a prolonged period of time. If DB plans experience massive losses in their investments, they can typically wait for substantial periods of time until financial markets improve. The current crisis in DB plans actually supports this notion. Despite massive underfunding in all DB plans — the PBGC estimated $450 billion in 2005 — only a small fraction of plans are terminated. At the same time, the PBGC itself showed a small gain in 2005, despite takeovers of large underfunded plans, most notably from United Airlines. It is a high likelihood that after financial markets experienced a large downturn they will see a recovery. Because pension plans do not have to terminate on or around a specific date, they can typically wait until things improve.[3] This is not the case for DC plans. If an employee finds out that he has saved too little for retirement, there is generally no possibility to wait for long periods until things substantially improve. That is why market risk is one risk that DC plans can typically not insure against.[4]

Further, DB plan generally also offer a measure of protection against a third risk, so-called longevity risk, or the risk of outliving one's saving. This leads some retirees to not spend enough, or to have a sudden drop in living standards at very old ages when the "money runs out." Annuities, such as those that exist in DB plans and Social Security, however, have no longevity risk.

DB plans typically offer annuities, or monthly lifetime benefit payments. Importantly, many DB plans "self-annuitize", i.e., they pay those benefits out of their assets and regular income, thereby eliminating the need to pay fees to insurance companies for this service. When DB plans purchase annuities, they often do so at wholesale prices, or group annuity rates, which are substantially lower than the typical retail fees of five percent of assets (Poterba and Warshawsky 2000).

Even if the accumulations under DB and DC are the same, the form of payout matters a great deal for retirees. A few studies (Bender and Jovan 2005; Panis 2003) linking pension structure and retiree satisfaction found that those DB plans that pay an annuity boost elderly persons' self-reported satisfaction by six percent. Meanwhile having both a DB plan and a

[3] This logic underlies proposals for more averaging of pension plan contributions (Weller and Baker 2005).

[4] For a discussion of market risk and its implication, see Weller and Wenger (2004).

401(k)-type plan boosts satisfaction even more, by eight percent. However, merely having a 401(k)-type DC plan alone does not add to an elderly person's satisfaction.[5] The interpretation that the elderly would rather have an equivalent level of income coming from a DB plan or a combination of a DB and a DC plan, rather than just from a DC plan, suggests that retiree satisfaction depends in part on the minimization of risk, as well as a level of income and wealth. This is borne out by the additional finding that having a supplement to Medicare or Medicaid — even if a person is healthy — substantially increases satisfaction. Even if a person wanted to buy an annuity with a lump sum generated by a DC, there are virtually no good retail options.

Objectively DB plans are superior at reducing risk for workers. However, when workers exaggerate and "overvalue" the risks associated with DBs while undervaluing the risks associated with DC plans, they usually choose DCs over DBs against their better interests. Workers who feel insecure in their jobs and distrust their employer view DB plans with suspicion because employers control the plans. In addition, humans as a rule undervalue longevity risk and investment risk and often do not appreciate inflation risk, which further makes DBs look less valuable. On the other hand, humans are notoriously overconfident about their ability to resist temptation and invest well. Many firms rely on this irrationality of DCs' appeal to workers. Michael Clowes, conservative writer and editor of the influential pension industry publication *Pensions and Investments*, views the workers seeming preference for DC plans (though clearly not preferred by retirees):

> *It's ironic that employees seem to prefer the new species of retirement plan, although it might not be as good for them* (2004, 11).

VIII. DB Plans Do Not Financially Destroy Companies

As already mentioned, employees under DB plans face employer default risk. However, this does not mean that DB plans cause employer bankruptcies. The widely reported airline defaults of 2004, which are reminiscent of the 1980s steel industry crisis, have left many people with the impression that pension obligations cause bankruptcies. The causation, however, actually is that bankrupt companies tend to eliminate their pension obligations because, under U.S. law, pensions and other labor costs are easier to avoid than other obligations. DBs are, in fact, associated with successful ventures as well as poorly run firms, but the connection between DBs and successful business does not make front page news. Halliburton, Boeing and General Electric are successful businesses who all have DB pensions.

[5] Note that this study also found that being forced to retire and being unhealthy dominated the determinants of satisfaction; being forced to retire decreased the level of satisfaction by 30 percent; and being in poor health by almost 20 percent.

The problem lies in the U.S. regulatory environment, which does not require regular contributions from employers to their pension plans and which provides strong incentives for employers who enter bankruptcy to shed their pension obligations. DB plans have had few favorable tax rules, just new administrative burdens — e.g., restrictions on withdrawals, interest rate assumption use placed on them by Congress during the last 10 years (Academy of Actuaries 2004). Moreover, legislation has failed to pass which would create a more predictable environment for employers who sponsor so-called cash balance plans, other types of hybrid plans, and multiemployer plans. Cash balances plans, which have developed over the last 20 years, are "notional" accounts. Employers contribute to workers accounts that are essentially bookkeeping devices. The employer takes the risk; the fund does not earn the defined return and is obligated to pay the balance when the individual retirees. The cash balance account looks like an individual account and its value is expressed as one, but the firm invests the funds and bears all the performance risk. Cash balance plans cannot be spent or used as collateral for a loan. The other major type of DB/DC hybrid is over 70 years old: the defined benefit multiemployer pension plan. Multiemployer plans cover approximately 20 percent of defined benefit participants and exist in industries where workers are often skilled and mobile, for instance in mining, needle trades, trucking, and construction. TIAA-CREF is not technically a multiemployer plan but it functions as one. It is the largest pension institution in the nation and close to the largest in the world. It covers research, university, and college professionals in a large number of employers linked by their function as universities or research institutions and contain many DB and DC characteristics. Continued regulatory uncertainty among plan sponsors for hybrid plans has contributed to them abandoning existing plans. Put differently, a more predictable regulatory environment could strengthen DB plans — a point I will return to further below.

In the United Kingdom, where a similar boom in the stock market and popularity for DCs occurred, high quality employers are instituting DB plans. The U.K. regulatory environment has been warmer toward DBs than in the U.S., allowing more flexibility in benefit design to encourage more DBs. A UK version of the PBGC was just instituted in 2004. Practices in industry reflect overall approval for DBs. The investment banker Barclays Bank PLC converted its DC plan into a career-average defined benefit plan (very similar to a cash balance) in 2004. The Marylebone Cricket Club and the property administration for the British royalty, Grosvenor, also replaced their DC plan with a DB plan.

Further, the Netherlands has a strong DB system. In contrast to regulation in the U.S., pension regulation in the Netherlands safeguards solvency but is not so restrictive that pension fund sponsors switch to DC plans (Bikker and Vlaar 2006). Dutch pension funds are required to maintain a coverage ratio of 105 percent at all times. This is not the case for U.S. funds. U.S. funds must fund shortfalls over a period of 15 years. Legislation requires Dutch plans to build a cushion of up to 130 percent if the risk profile of the portfolio is high.[6] The key differences between the Dutch and U.S. situation, besides the strictness of the funding rules, are that Dutch funds can restore funding levels by lowering benefits. Most Dutch workers have unions to represent them in this process. In the U.S. steel industry, the unions did agree to a cut in benefits — most early retirement benefits were cut — but they had to terminate the plan first and have the benefits assumed by the PBGC. Though no one has suggested that a reduction in benefits would have saved the steel and airlines companies from filing bankruptcy, there should be ways that firms and workers can negotiate a work-out solution in bankruptcy that prevents complete termination of a DB plan.

IX. The Importance of DB Plans to Employers Facing Baby Boomer Retirement

In addition, a factor that is important for the future aging workforce and the employers that need to hire them is that DBs are especially valuable to middle-aged workers. DBs are designed so that the value of the benefit increases quickly as workers become older (Johnson and Uccello 2004).

Pension plan design — whether the plan is a DC plan or a DB plan — affects employee loyalty and turnover. Loyalty is still a valued feature in the so-called new economy. Firms created insecurity for workers by breaking apart long-term contracts and internal labor markets in the 1970s and 1980s. But in the future, firms are going to face fewer younger workers and more older workers. Forward-looking firms are focusing on issues of retention, not recruitment.

University of Virginia economist Leora Friedberg and Federal Reserve economist Michael Owyang (2004) found DB plans are associated with very high levels of loyalty among middle-aged workers; they are much less likely to search for another job and leave if they are covered by a DB plan. Federal Reserve Bank economists Stephanie Aaronson and Julia Coronado (2004) found that firms that have a higher than average increase in mobility are correlated with firms that have DC plans. These correlations lead to an unwarranted conclusion by many interpreters that workers who are mobile

[6] Based on the FTK legislation, which comes into effect in 2007.

want DC plans and not DB plans. It is more likely that firms that choose DC plans are the same firms that do not value long-term employer-employee relationships.

In fact, Friedberg and Owyang (2004) note that large DB sponsors outsourcing to smaller contractors — for strategic purposes unrelated to compensation design — was responsible for some of the growth in DC plans and foreshortened careers. Employees of a new spun-off firm had once been a long-term DB-covered worker. He or she was newly employed by the new firm and had no DB pension. The statistician could wrongly interpret the situation as one in which workers with short tenure prefer not to have DB plans.

A human resource-consulting firm warns employers not to accept the notion that employees generally prefer DC plans, particularly 401(k) plans to DB plans. They found that younger employees, when exposed to the pros and cons of each type of pension plan, prefer the employer make the investment decisions and bear the various risks and choose a DC-DB hybrid over a 401(k) plan. The fact that two-thirds of workers in a large electronics employer that offered its workers a choice between a traditional DB plan and a DC plan with an employer match chose to remain under the traditional formula and forego the DC alternative evinces worker support for DB characteristics in a pension plan (Rappaport 2004).

X. Why Some Employers Want 401(k) Plans

There are, however, reasons, why employers prefer DC plans over DB plans. In particular, the fact that 401(k) plans can reduce pension costs powerfully motivates some employers to choose 401(k) plans despite DBs' positive effects in retaining and attracting older workers, an especially important feature as the workforce ages. The motivation is apparent when the vexing problem that eligible employees irrationally "leave money on the table" by not participating in 401(k) plans is viewed from the vantage of the employers' delight, not the policy economist's dismay. Despite the convenience of payroll deduction and expensive education campaigns, the average participation rate for 401(k)-eligible workers has stagnated at about 80 percent. Twenty percent of employees do not take advantage of an employer's match or tax break. Pension experts and academics invariably write this off to quirky human nature. This view ignores the obvious reality that when workers leave money "on the table," they leave it on the employers' table and that the outcome could be anticipated and factored into the employers' compensation strategy. Between 2002 and 2004, if all eligible workers participated in their employers' 401(k) plans, employers would have had to contribute 26 percent more — for an annual total of $3.18 billion. Employers not wanting 100 percent participation helps solve

the mystery why, although automatic enrollment is a documented, effective way to increase participation in 401(k) plans, 82 percent of 401(k) sponsors don't offer it. As mentioned above, one-fifth of employers are considered to provide a pension even though they don't contribute anything to their employees'401(k)s.[7] Ghilarducci, Sun, and Nyce (2004) found that merely adopting a 401(k) can reduce pension costs by as much as 25 percent.

Another way to see how employers maximize profits by inhibiting 401(k) participation is by noting which employers do not. In 2003, *Plan Sponsor* magazine celebrated companies that achieved above average participation rates in 401(k)-type plans. The effective techniques were easy to spot.[8] Those employers achieving 99 to 100 percent participation used a surefire way of boosting participation: mandatory participation. These employers were primarily government and not-for-profit firms. Yet, one for-profit company did get 100 percent participation, the Sun Coke Company. The company attributed its success in not requiring employee contributions to its profit-sharing plan (which is not a 401(k) plan).

XI. The New (Exaggerated) Mobile Workforce: Does it Matter and Does it Even Exist?

A main argument against DBs is that they are supposedly a bad fit with today's workers. An extreme form of the argument is that DBs reward workers who stay with the same employer for their entire career. Which can make little sense if workers are becoming more mobile, because if workers leave DB-covered employment at a young age, or before vesting or at least 10 years of service, DB benefits are zero to miniscule. Yet, this argument is fragile; it is built on incorrect assumptions about the labor market.

Younger workers have always engaged in "job hopping," but they were also more likely to end up in a beneficial DB plan. Mobile workers can gain from a DB plan even if they do not settle into a job at age 40 for 25 years because after 10 years a worker can lock in a significant DB pension benefit. DBs offer ways that middle-aged workers, especially women entering or returning to the workforce at older ages, can accumulate a reasonable retirement income in their 40s and 50s even if they changed jobs a lot in their 20s and 30s and do

[7] I used information from Munnell and Sunden (2004) on participation rates, average contribution levels by earnings, the distribution of employees by earnings (calculated from the CPS (2003) to make the three billion dollar estimate). The average savings per worker is $156; Madrian, Choi, and Laibson (2005) calculated for their sample of over 800 employees in one firm that the employer saved over $250 per older worker who did not participate in the 401(k), even when they were eligible. Fidelity's (2004) annual report documents employers' match behavior.

[8] The magazine sampled 3,500 defined contribution sponsors and identified the 35 plans with the highest participation rates ("Easy Does It" 2004).

not stay with their current employer for more than 10 years. Furthermore, since most workers use their 401(k) account balances as severance payments, spending them when they quit, are laid off or fired, means that job-hopping has even worse consequences for retirement savings in a 401(k) world.

However, before we allow mobility to determine the most effective pensions, we need to know the facts. Mobility trends differ depending on the point of view — what time period, what industries, what aged workers, for men or for women. In many ways, workers have become more stable. One measure is that the share of employees with more than 10 years of service has increased since 1996; up for men from 30.5 to 30.6 percent and up for women from 27.9 to 28.6 percent (Wiatrowski 2005). It is true that compared to the 1970s and early 1980s men stayed in their jobs longer — the share of male employees with 10 or more years of tenure was 37.7 percent in 1983. In addition, older men, who experience more job displacement and have lost their employer pensions, have had to "to screw their courage to the sticking-place" in order to save for retirement on their own. In 1983 over 57 percent of men aged 45-50 years would have been with their current employers for over 10 years — a standard unit of measurement; the probability in 2004 has fallen 48.1 percent. But, women have become more stabile: The probability a women in this age group would have been with their employer for over 10 years increased from 33 percent to 36.2 percent.

Another reason mobility increases can be exaggerated is that mobility is decreasing in industries where the most new jobs are appearing. The average tenure for all workers over age 16 increased from 3.5 years to four years from January 2000 to January 2004, which means more workers will have reached the five-year mark where they must be vested (Bureau of Labor Statistics 2004, 2005). Yet, tenure growth is higher in the industries projected to produce the most jobs in the next two decades (see Table 5). Industries adding the most jobs are retail trade, employment services and computer design, state and local governments, food services, and in health care (offices of health practitioners, ambulatory health care services, and hospitals). In all but one of these, large job growth areas mobility is decreasing and tenure is increasing. Over all, the average growth in job tenure for most of the fastest growing industries is 16.3 percent compared to the average of 14.3 percent. Bottom line: job security has improved slightly rather than the workforce becoming more mobile.

Table 5
Changes in Job Tenure for Industries with the Largest Job Growth

Industries expected to grow the fastest (2002 to 2012)	Average years of tenure with current employer	Increase in job tenure to January 2004
	January 2000	
Retail trade	2.5 years	12.0%
Employment services and computer design*	2.6	38.5%
State and local government **	5.5	16.4%
Food services	1.4	14.3%
Offices of health practitioners, Ambulatory services	3.2	3.1%
Construction	2.7	11.1%
Educational services	3.2	18.8%
Hospitals	5.1	-7.8%
Average for all industries		13.3%
Average for all industries without hospitals	3.5	14.3%

Notes: Source is U.S. Census, *Statistical Abstract of the United States*:*2004-2005*). * The job tenure figures often include categories that do not correspond with the employment growth categories. The tenure figures are for professional and technical services, which is a larger category than "employment services and computer design." ** The job tenure figures only include state employment because the employment growth categories are reported in larger categories than for job tenure. (Average tenure in local employment decreased slightly from 6.7 to 6.4.)

XII. Head on Comparisons: DB vs. 401(K) Simulations

Even in a mobile society, a worker would likely accumulate a pension worth much more in a DB plan than a 401(k). The simulation assumes a worker has three jobs after age 30 and four jobs before age 30. The simulation also assumes that the worker with a 401(k) saves 25 percent of her 401(k) balance when she changed jobs before age 30 and then 100 percent after age 30. Participation in 401(k) plans is voluntary and there are many exclusions, so most workers do not participate (Munnell and Sunden 2004, 56), but participation rates do increase with a person's age. Munnell and Sunden (2004, 56) calculate that participation rates are about 28 percent up until age 30, and then grow gradually to 44.2 percent by age 45, and then drop down to 38.8 percent. Assuming that workers and employers together contribute nine percent to a 401(k) (Munnell and Sunden 2004, 58) and it earns 3 percent (after adjusting for risk and fees) per year, then under real life circumstances this worker accumulates $33,335; this amount is not far-fetched since the median account balance for a 60-64 year old is $59,000 (Munnell and Sunden 2004, 69). The annuity value is only about $2,700 per year. On the other hand, the DB annuity accumulated under a common formula of two percent of salary per year of service credit adds up to $35,000 per year. Workers are automatically in a DB plan, and the amounts are guaranteed by the government agency, the PBGC. The 401(k) is worth more only under ideal circumstances, which are that the worker never skips

a contribution, always participates, and never withdraws. Under these ideal circumstances, the lump sum is over $647,000 and the annuity value is over $51,000. (See the Appendix)

But, the ideal 401(k) world — where young workers always have a job, steadily saves 12 percent of their income, always get low fees, and never touch the accrual or principal — is in the big rock candy mountain in the sky, not on this planet, even with investor education.

XIII. DBs Are Imperiled and This is Why

In the United States, there have been few new favorable regulations or laws passed to encourage participation in DB plans. Instead, Congress has tilted in favor of DC plans. In almost every year since 1978, legislation designed to encourage people to save in individual retirement accounts has sailed through the legislature. Only 401(k) plans can accept voluntary tax-deferred employee contributions, employer matches, and profit based contributories. Moreover, Congress has allowed more and more contributions in 401(k) to be sheltered from tax but have not provided the same shelter for income contributions to DBs (McCaw 2004). Moreover, decreases in tax rates for capital gains and dividends reduce the tax advantage for DB plans (Mercer 2004). The American Academy of Actuaries concludes that most of the decline in DBs is due to the favorable regulatory treatment of DCs over DB plans (Academy of Actuaries 2004).

Moreover, despite the hostile environment for DB hybrids, i.e., cash balance accounts (Weller 2005) and the dearth of facilitating legislation, it is remarkable that the number of U.S. companies threatening to freeze their DB plans is not even higher. According to a 2005 survey by Hewitt Associates, 16 percent said they were likely to freeze benefit accruals for all or a portion of current participants (Geisel 2006).

The sluggish economic recovery after 2001, especially in DB-rich industries, combined with legal uncertainties about the status of cash balance plans and White House DB proposals (which propose to trigger larger contributions from firms during times of economic difficulty), explain much of the lukewarm enthusiasm for DBs. Nonetheless, despite the doldrums and bad publicity, DB plan sponsorship has been constant from 2000-2004, at about 63 percent (Watson Wyatt 2005). This finding is notable because seven percent of firms on the "Fortune 1000" list change every year. The constant sponsorship rate indicates that firms joining and leaving the "Fortune 1000" list have the same DB sponsorship rate. However, the number of sponsors who froze or terminated at least one of their plans rose from seven percent

of all defined benefit plan sponsors in 2003 to 11 percent in 2004. DBs impose long-term obligations onto firms but not long-term costs when the pension plans are fully funded. Intuitively, a well-managed firm would want a DB plan rather than a DC plan because they can fully fund the DB plan in good times and cut back on bad times without causing workers to lose any benefits. In a DC plan, the firm will maintain a defined level of funding — if the firm has good faith. If a firm does not have good faith they would stop funding a DC plan and workers would lose accumulations.

In other words, although just as many of the nation's largest firms sponsor DB plans, more are freezing or terminating them. Smaller and less profitable firms are more likely to retrench DBs. Between 2001 and 2004, about half of the companies that terminated their DB plan dropped off the "Fortune 1000" list. Half of the companies that had frozen or terminated their DB plans had below investment-grade credit ratings, which is twice the rate as the large firms with active defined benefit plans.

The bottom line is that some companies that underfund their pension plans at some point do well and some eventually fail. It is a well recognized fact that firms that are doing poorly tend to pull back on their pension funding and fail for cataclysmic reasons — high debt to equity ratios, declining profits, etc., not because of how they secured their pension promises (Chava and Jarrow 2004). The bankruptcy and pension protection rules allow firms to run down their pension funding before firms default on other obligations, such as the phone bill or maintaining dividend payments to shareholders. Distressed companies diminish their DBs; healthy companies maintain them.

XIV. Who Drives Pension Changes?

> *"I feel liked I was kicked in the stomach."*
>
> *That was the reaction of one employee after December 5 when Verizon Communications told its salaried employees that it would freeze their pensions at the end of June 2006.*

(From the first page of a website for Verizon workers http://www.verizonretirementwatch.com/ accessed January 13, 2006).

Employers are causing the move away from DB plans. Employers, not workers, determine pension design. However, not all employers are alike and not all are adopting individual-based employee benefits. Many employers who do adopt the individual model choose 401(k)-style plans in order to lower short-term pension costs and help many firms manage cash flow problems. A firm offering 401(k)s does not have to commit to contributions at all. In

fact, over 20 percent of employers stopped contributing to their 401(k) plans in 2001 (Munnell and Sunden 2004).[9] While DBs are superior in retaining workers in their late 40s and early 50s (Johnson and Uccello 2004), and employers face impending shortages of skilled labor, worker loyalty seems less highly valued today by some large firms. It has always been the case that some business models stress low pay labor and a tolerance for high turnover. A memo from Wal-Mart's human resource director leaked to the press (Greenhouse and Barbaro 2005) advised supervisors to include vigorous physical tasks in all jobs so that senior workers, who are paid higher wages, are subtlety encouraged to quit.

These trends away from offering pay to longer tenure employees may come back to haunt firms. Industries enjoying rapid growth may face high turnover costs, especially if they must recruit from other companies, making hiring more expensive than retaining older workers. As the baby boomers retire over the next 20 years, and more companies — especially those that depend on skilled and semi-skilled labor — find it difficult to hire without raising wages, they likely will regret not having DBs. Certainly, many successful employers maintain DBs or DB hybrids in order to attract and retain older workers. Federal policy should not make DBs extinct for lack of action or imagination or because fads are moving in another direction in the short term.

XV. DB Plans Need Help: Taking Down the Barriers to DB

The stagnation in developing hybrid DBs, documented above, demonstrates the need for federal policy to embrace several of the existing good ideas to promote pension plans with DB characteristics. These plans include DB-DC hybrids — versions of cash balance plans (Weller 2005), the DB(k), and traditional multiemployer portable DB plans that have existed in dynamic industries with mobile workforces.[10]

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[9] Commonly cited advantages of 401(k) plans for workers are overstated. Theoretically, these plans offer the benefit of being transferable from job to job. But as many as half of people participating in these plans cash them out when they change jobs, so that the 401(k) plans really serve as severance plans that help alleviate the costs associated with being out of work and changing jobs. Facing rising living costs and stagnant wages, middle class workers often use these funds to pay for their children's education, household expenses, and housing needs. Women workers are more likely to cash out their 401(k) for non-retirement related needs. Early 401(k) withdrawals reduce the account levels. The average 401(k) account for someone nearing retirement is about $70,000 — about enough to replace only 3 percent of an average income.

[10] Academy of Actuaries DB(k) proposal allows workers to supplement their DB plan with their own contributions. This is an attractive feature for employees in the 401(k) context for it helps an employee make personalized decisions about deferring current consumption to the future and individuals have an important sense of control and connection to their retirement plan.

A group of nurses in a New Jersey hospital offers an example. In the late 1990s they finally got their longstanding demand to join the multiemployer pension plan that the hospital's operating engineers belonged to. Why operating engineers?! The hospital had changed ownership so many times that each single employer plan ended when another firm bought the hospital. The employees did not move — it was the employers who were mobile. Joining the multiemployer plan let the nurses build up credits in one DB plan (Ghilarducci 2003).

There should be more single employer plans merged with multi-employer plans. Through collective bargaining, the union representing mechanics and other workers brought in employees from United, US Airways, and Aloha airlines after their other plans terminated and were taken over by the PBGC. This means that when a single employer DB plan in the airline industry failed, the International Association of Machinists multiemployer plans stepped up to replace them, offering better benefits than the airlines' proposed DC plans for the same contribution. The plan is more stable for the workers because it is a DB plan that includes the other airlines. These workers could lose their jobs at US Airways or any other airline; but not necessarily lose active membership in their pension plans (Almeida 2005).

Promoting the transfer of single employer DB plans to multiemployer DB plans cannot be done easily without enabling legislation and regulatory changes. The law is not helpful, nor is the PBGC, in preventing single employer terminations. The PBGC should encourage multi-employer plans to take on distressed single-employer plans by offering financial assistance. This may be much cheaper than the PBGC taking over an entire plan. The law already allows the PBGC to financially assist a distressed single employer plan to be merged into a multiemployer plan. A demonstration project in the airline or auto parts industries could greatly expand the multiemployer universe.

XVI. Public Policy Suggestions

In addition to bringing down the barriers to DB plans, I proposed two initiatives that mimic what unions and government legislatures already do to cover workers with pensions so effectively. These institutions provide multiemployer pension structures. If no union is available, I propose that small firms and workers could access the services of their state's professionally managed pension funds. Clearly, as the late ERISA attorney Michael Gordon has noted, new institutional frameworks aimed at increasing coverage require devoting attention to "the twin areas" of small business and the nontraditional workforce (Gordon 2000). Single-employer plans are motivated by long-term generous corporate tax breaks for pension contributions; in contrast, the high mortality rate and low profits among small businesses render such incentives valueless.

The Department of Labor could hold down the cost of forming multiemployer plans for small businesses by providing safe harbors and model legal documents that groups of employers or employee organizations and their legal counsels could use to establish multiemployer plans. Tax incentives could sweeten the deal and counsel could send the signal that forming such plans is encouraged.

Alternatively, or in addition to federal efforts, states could help. Each state could help its employers form such networks and provide pension coverage by providing administrative and investment services for low fees (reflecting costs) through their state and local pension funds. An example is the Governor's proposal in Michigan (Plansponsor 2006) and the proposed legislation in Washington state. Recognizing that workers, especially low-income workers, pay high fees to retirement fund managers, the legislation would give state residents access to the professionals managing the state employee pension funds (Watkins 2002).

In designing public policy solutions, particular attention needs to be paid to the lack of retirement savings, especially among low and moderate income workers, who often work for small companies. The GAO notes that proposals to "expand pooled employer arrangements and mandate private pensions" are unattractive not because of their design but because small firms don't want to bear the short term costs for the uncertain and long term gains (GAO 2002, 36).

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 sense, de-linking pensions from a single employer via multiemployer plans may hold out hope to resolving skill shortages and income security problems.

Usually the analysis ends with a discussion of the three reasons lower income workers are less likely to have pensions, namely: 1) they are uninfluenced by pension policy that relies on tax favoritism to induce retirement savings because they pay little in federal taxes (Perun 2000); 2) low-income workers are almost always poor and they have little discretionary income to save; and 3) low-income workers are more apt to work in small firms that are unlikely to sponsor pensions.

From these observations the following three proposals follow: 1) make DB plans attractive again; 2) provide not-for-profit money managers for individual accounts; and 3) target the small firm coverage problem by urging financial institutions to develop full-service and low-cost multiemployer plans (Pension Rights Center 2004).[11]

Small firms that want to provide pensions need some relief on various aspects of pension provision, primarily relief from their own inertia. Small firms also need relief from the high administrative costs of administering pension plans and accepting fiduciary liability, and small firms especially need some flexibility in funding and contribution levels that are sensitive to varying abilities to pay. Since existing options — simple IRAs, SEPs, 401(k)s (U.S. DOL 2001) —
clearly are not an effective course, I have provided an outline of a creative institutional approach to expanding pension coverage to those workers who need it the most.

Last, in response to the frozen and failed plans of major corporations, Congress should bolster the PBGC's statuary requirement to advance DB plans and should encourage multiemployer plans to take on distressed single-employer plans by offering financial assistance to the multiemployer plans for doing so.

[11] The Ford, Annie E. Casey and Charles Stewart Mott Foundations financed a two-year project conducted by the Washington, D.C.-based Pension Rights Center project called Conversation on Coverage. This year-long project was composed of high-level experts and policy professionals who explored solutions to the pension coverage gaps, which were described in a final report released July 22, 2004.

XVIII. Conclusion

The pension landscape is not divided between a new world of 401(k) plans and an old world of DB plans. Although many firms have exited DB plans in a drive to reduce costs and stop providing pensions, the case for DBs has never been stronger. As the workforce ages, public policy needs to husband the precious dollars accumulating for retirement benefits and make sure they are contributed consistently, invested well and efficiently, and provide income for the rest of a retiree's life.

To that end, we need pension reform. With the right kinds of policies, the nation can encourage plans that incorporate the favorable characteristics of both DB and DC plans. DB-DC hybrids include cash balance plans, single employer plans, and multiemployer DB plans. In addition, public policy solutions need to be furthered that can address consistent problems in the DC world. These include lower costs, fewer risks, better coverage, and more equitable wealth creation. As these problems are addressed, DC plans will ultimately become more like DB plans, albeit in a somewhat less cost efficient fashion.

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Appendix

Table A1
Under Real Life Conditions DBs are Better than 401(k)s

This is a simulation of a worker's pension accrual. This simulation assumes that the worker and the employer contribute the average to their 401(k) and participate at the average rates if they are covered by a DB or DC plan. The resulting pensions under both types of plans are compared with a career where the worker has the ideal rates of contribution, withdrawal, and participation.

This simulated worker has eight jobs, retires at age 65 with an ending salary of $52,240. Ideally, she would have $647,379 in her account and take it out in an annuity of $51,790. The ideal 401(k) is better than the average DB plan, which yields $35,364 for life. However, under real life conditions, the real-life 401(k) is worth $33,335 or $2,667 for life.

					Real life 401(k) plan			Ideal behavior in a 401(k) plan			Average DB
Job	Age	Salary	Yrs on the job	Contri-bution rate	With -dra wal Rates	Participa-tion rates%	Net at age 65	With-drawal	Partic ipation	Lump and annuity	formula 2% for each service year
										$21,177	
1	20	$35,000	2	9%	75%	0.28	$1,482	0%	1	$32,718	0
2	22	36,050	3	9%	75%	0.28	$2,224	0%	1	$11,233	0
3	25	37,132	1	9%	75%	0.28	$678	0%	1	$11,570	0
4	26	38,245	1	9%	75%	0.28	$699	0%	1	$35,752	0
5	27	39,393	3	9%	75%	0.28	$1,862	0%	1	$223,452	0
6	30	49,241	15	9%	0%	0.416	$14,916	0%	1	$153,437	$14,772
7	45	50,718	10	9%	0%	0.442	$6,025	0%	1	$158,040	$10,144
8	55	52,240	10	9%	0%	0.388	$5,448	0%	1		$10,448
retire	65	same	0	0	lump	Leakages for adult children, etc.	$33,335 or $2,667 for life	annuity		$647,379 or $51,790 for life	$35,364 for life

About the Author

Teresa Ghilarducci is a professor of economics at the University of Notre Dame and director of the Higgins Labor Research Center at the University. Her new book, underway, The End of Retirement, for Princeton University Press, investigates the effect of pension losses on older Americans. Her book Labor's Capital: The Economics and Politics of Employer Pensions, MIT Press, won an Association of American Publishers award in 1992. She co-authored Portable Pension Plans for Casual Labor Markets in 1995. Ghilarducci publishes in referred journals and testifies frequently before the U.S. Congress. She served on the Pension Benefit Guaranty Corporation's Advisory Board from 1995-2002, and on the Board of Trustees of the State of Indiana Public Employees' Retirement Fund from 1997-2002.

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