

The Significance of Integrated Plans

by Pamela Perun

As Social Security reform is debated, plan integration becomes an important issue for both the private pension system and Social Security. Because Social Security provides progressive benefits, any reform efforts will have their greatest impact (for better or for worse) on the retirement income of low-paid workers. In addition, any changes in the current program will have repercussions for the private pension system (Gregory 1998; Moore 2001; Olsen, VanDerhei and Salisbury 1997). The private pension system faces its own set of challenges, including a persistent problem of poor coverage rates for low-paid workers (Copeland 2001; Munnell and Sunden 2001). Even if they do participate in a plan, plan integration provides reduced benefits to low-paid workers and the magnitude of those reductions in integrated defined benefit plans is apparently increasing (Bender 2001). In addition, with the shift in recent years from defined benefit to defined contribution plans and the increase in “do-it-yourself” retirement plans, low-paid workers are under more pressure to fund their own retirement income. The increase in contribution limits now in effect is unlikely to benefit these workers because few can afford to contribute more (Perun 2001). Because plan integration adds to the burden on low-paid workers to generate their own retirement income, understanding its role in the private pension system is both a relevant and timely issue.

The extent of Social Security integration in the private pension system has long been a question. In the 1990s, data from employers in the Employee Benefits Survey (EBS) of the Bureau of Labor Statistics indicated that integration in defined benefit plans was declining among private employers, with less than 50% of employees participating in such plans (Bureau of Labor Statistics 2000, 1999a, 1999b; Foster 1997; Slusher 1998). Mitchell (1999), however, found substantial fluctuations in plan integration among large firm employees during the last twenty years. Only 45% participated in such plans in 1980. That percentage increased to 63% in 1989 but, by 1997, it had fallen to only 49%, close to the baseline percentage of 1980. Using data obtained from employers and employees in a subset of the Health and Retirement Study (HRS) sample, Bender (1999) found that 45%



were in integrated defined benefit plans in 1992, a similar but slightly smaller figure than that reported in the 1993 EBS survey. Data on government workers does not show the same trend, perhaps because integrated plans are rare among government employers. Recent EBS data indicate that only 7% of such workers were in integrated plans in 1998, compared to 4% in 1994 (BLS 1999; Foster 1997).

Because the EBS collected data only on defined benefit plan integration, defined contribution plan integration remains a mystery. Integration in such plans is believed to be rare. Using 1992 HRS data, Slusher calculated that less than 2% of the HRS sample ever participated in an integrated defined contribution plan. Using that same data set, Bender (1999) estimated that just 8% of HRS workers who participate only in a defined contribution plan are in an integrated plan.

Because the available information is fragmentary and often contradictory, little is known about the characteristics of employees in integrated plans or the employers who sponsor them. Slusher, for example, found no clear relationship between wage level and the prevalence of integration and only small differences by income and gender. He did report that employees of small firms are less likely to have an integrated plan. Bender (1999), using the same data, also found no relationship between firm size and plan integration. Men, non-Hispanic blacks and workers with less than a graduate level of education were less likely to be in integrated plans, while union members and workers with earnings greater than the Social Security wage base were more likely. Slusher reported, in addition, that the retail trade, manufacturing and financial industries had the highest incidence of integration, and Bender reported that the natural resources, transportation, professional and public administration industries had the smallest.¹

This article examines the prevalence of plan integration using a comprehensive and longitudinal, but not previously explored, data set. It analyzes federal Form 5500s filed between 1993 and 1997. Every year, the federal government collects census data on the private pension system through Form 5500, an annual filing required of almost all welfare and pension plans sponsored by private employers. Form 5500 ob-

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tains data on plan sponsor characteristics, plan assets and liabilities, plan participation and plan income and expenses. It also requires plans to provide some information on their design characteristics, including whether a particular pension plan is integrated. Form 5500 data therefore provide a relatively accurate and comprehensive picture of the actual plans that make up the private pension system in any given year. With some notable exceptions, such as plans sponsored by state and local government or by churches, the data encompass the universe of employer-sponsored pension plans. Few of the omitted plans are permitted to or do take advantage of plan integration, so these data largely represent the universe of integrated plans as well. In addition, the 1993-1997 period provides an appropriate time frame for studying integration because both the relevant legal rules for integrated plans and the types of data collected on Form 5500 were relatively stable during those

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FIGURE 1

Pension Plans, 1993-1997

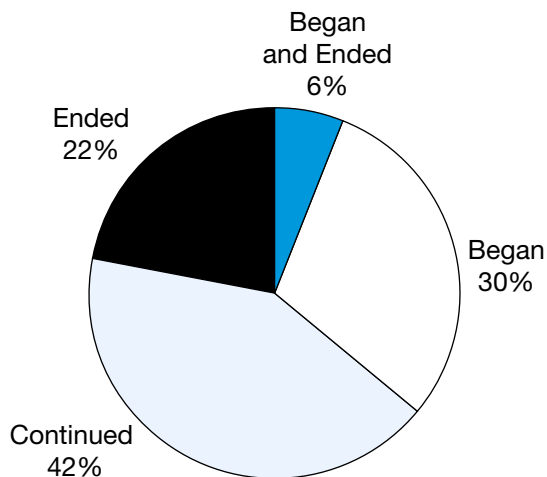
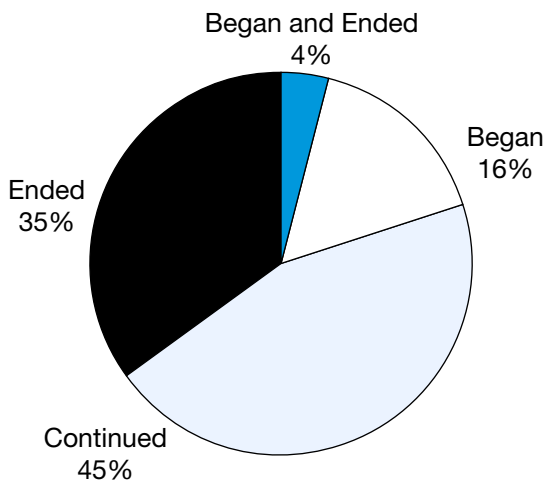


FIGURE 2

Defined Benefit Plans, 1993-1997



years. The data set analyzed in this article is large and contains about 700,000 individual pension plan records in any given year, each with about 500 variables.²

OVERVIEW OF THE PRIVATE PENSION SYSTEM, 1993-1997

In order to place plan integration in context, it is first useful to review briefly the private

pension system as a whole. At the outset, it is important to recognize two important but often overlooked characteristics. First, the vast majority of plans have fewer than 100 participants. Less than 10% of the plans filing Form 5500s in any given year—some 60,000 to 70,000 plans—have more than 100 participants. So the private pension system as a whole is largely composed of small plans.

Second, the private pension system is dynamic. Large numbers of plans are terminated every year, and even larger numbers of plans are created. Analysis indicates that there were roughly one million pension plans in existence during the 1993-1997 period.³ In those years, the number of pension plans increased about 9%, from about 660,000 in 1993 to 720,000 in 1997, but there was also some significant turnover. Figure 1 illustrates the dynamics of the private pension system during this period. There is a large, stable set of plans, comprised of about 413,000 plans (42%) that began before or in 1993 and were still in existence in 1997. About 293,000 (30%) began during this period and were still in existence in 1997, while some 217,000 (22%) were terminated. There were also a small number of short-lived plans, as some 64,000 plans (6%) both began and ended during this five-year period.

This analysis replicates the finding that the number of defined benefit plans is declining. Figure 2 illustrates the experience of defined benefit plans during this period. There were about 101,000 such plans in existence during this entire period. The largest group, roughly 43,000 plans (45%) began before or in 1993 and were still in existence in 1997. Between 1993 and 1997, the number of defined benefit plans fell by about 25%, from roughly 84,000 plans in 1993 to some 63,000 plans in 1997. A large group, about 38,000 (35%), terminated during this period while only about 15,000 (16%) new plans were created. There were also a small number, some 4,800 (4%), of short-lived plans.

This analysis also replicates the finding that defined contribution plans are increasingly dominating the private pension system. Figure 3 illustrates the growth in such plans during this period. The number of defined contribution plans increased by about 14%, from some 579,000 plans in 1993 to about 659,000 plans in

1997. The largest group of plans, some 360,000 plans (41%), began in 1993 or before and were still in existence in 1997. Roughly 269,000 defined contribution plans (31%) were created during this period, while some 174,000 defined contribution plans (21%) terminated. As was true of defined benefit plans, a small number, some 56,000 defined contribution plans (7%), both began and ended during this period.

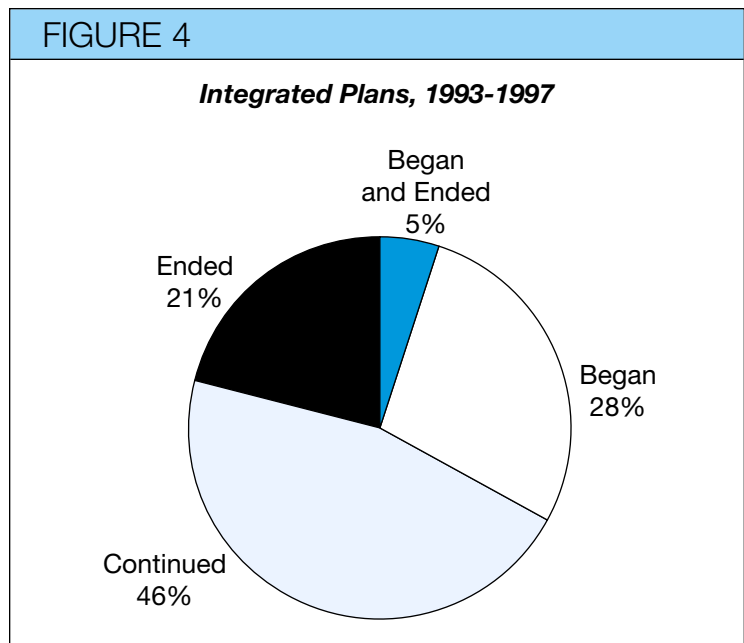
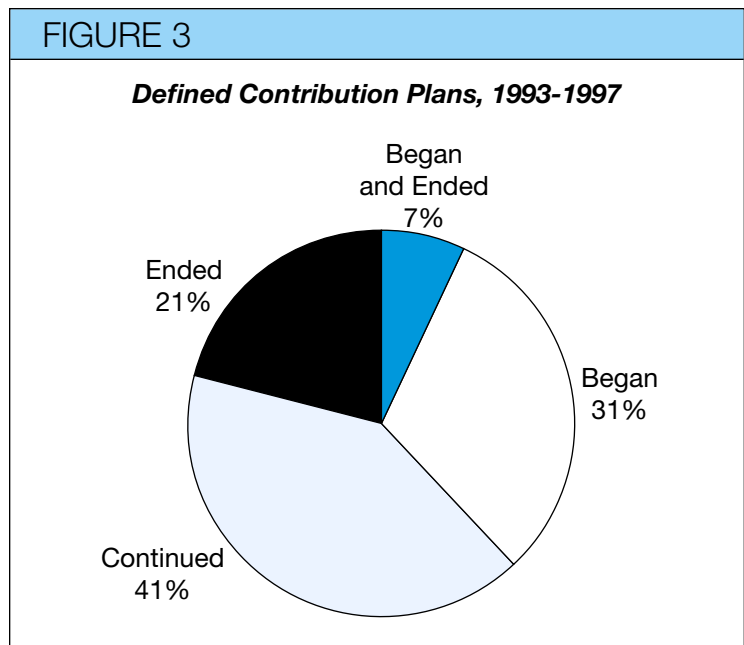
The pension system and the presence of defined contribution plans in the pension system is increasing, as the number of plans created every year exceeds the number of plans terminated. Defined benefit plans are not so fortunate. More than twice as many of these plans were terminated as created during this period. On the other hand, almost half of all defined benefit plans are quite stable and continue from year to year.

OVERVIEW OF INTEGRATED PLANS, 1993-1997

The life cycle of integrated and nonintegrated plans looks very much alike in percentage terms, as shown in Figures 4 and 5. Integrated plans seem slightly more stable than nonintegrated plans in that 46%, or 5% more than nonintegrated plans, experienced no change during this period. Among nonintegrated plans, that 5% difference is accounted for by the fact that 2% more plans were created, 1% more were terminated, and 2% more were created and terminated than was the case for integrated plans.

These differences, however, are trivial. The more interesting finding is that the experience of integrated plans mirrors that of nonintegrated plans as well as the private pension system as a whole, as depicted in Figure 5. Some 40% of all plans appear to be quite stable and continued from year to year during this period. The private pension system grew because about 10% more plans were created than terminated during this period. There are no significant differences between integrated and nonintegrated plans in this regard.

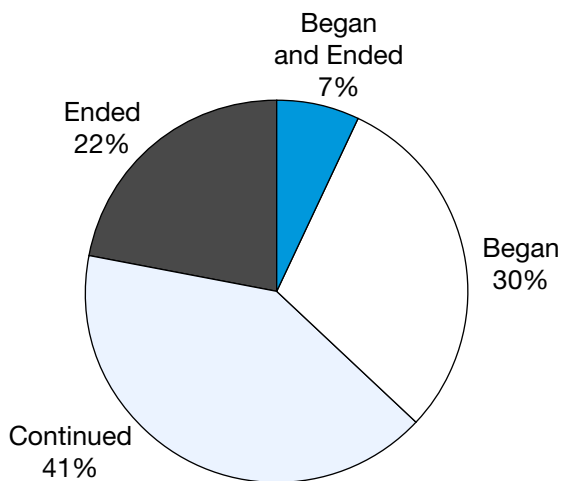
Figure 6 illustrates the numbers of integrated plans in each year from 1993-1997. The number of integrated plans grew along with the private pension system during the 1993-1997 period. As Figure 6 indicates, the number of in-



egrated plans increased from about 162,000 in 1993 to almost 174,000 in 1997, a growth rate of about 7% during this period. That rate compares favorably to a 9% growth rate experienced by nonintegrated plans. Nonintegrated plans grew from about 500,000 plans in 1993 to about 550,000 in 1997. In each year, integrated plans accounted for a remarkably steady 24% of all plans. This indicates that the use of inte-

FIGURE 5

Nonintegrated Plans, 1993-1997



grated plans by employers is a stable feature of the private pension system. As the private pension system grows, integrated plans grow with it and represent a relatively constant proportion of all plans. Expressed somewhat differently, almost one out of every four plans in any given year is likely to be an integrated plan.

**INTEGRATION, 1993-1997:
DEFINED BENEFIT VS.
DEFINED CONTRIBUTION PLANS**

Number of Integrated Plans

The steady growth rate observed in integrated plans during this period is somewhat deceptive. That rate masks significant differences between integrated defined benefit and defined contribution plans. Figure 7 illustrates the difference in the number of integrated defined benefit and defined contribution plans from 1993 to 1997. Again, integrated plans behaved very much like their nonintegrated counterparts. As Figure 7 indicates, the number of integrated defined benefit plans fell by about 29% during this period, from some 24,000 plans in 1993 to only about 17,000 plans in 1997. Figures for nonintegrated defined benefit plans are comparable, although the decline of these plans was less severe. Nonintegrated defined benefit plans decreased by only 23%, from about 60,000 plans

in 1993 to 46,000 plans in 1997. As a percentage of all defined benefit plans, however, integrated defined benefit plans decreased only slightly—from 29% in 1993 to 27% in 1997—once defined benefit plans added to the private pension system during these years are taken into account.

In contrast, the percentage of integrated defined contribution plans held steady at 24% during this period. But because the number of defined contribution plans increased during this period, so did the number of integrated defined contribution plans. In 1993, there were about 138,000 integrated defined contribution plans. By 1997, that number had increased 13% to 156,000. Nonintegrated defined contribution plans increased by slightly less than 14%, from some 440,000 in 1993 to 500,000 in 1997.

During these years, then, integrated defined benefit plans participated in the well-documented decline in such plans and at a higher rate than nonintegrated plans. Integrated defined contribution plans also participated in the general increase in such plans but at the same rate as nonintegrated plans. This again illustrates that integrated plans are not a peculiar set of plans in the private pension system. Instead, they shared the experience of their nonintegrated counterparts during this period and exhibited very similar patterns of change.

**Number of Participants
in Integrated Plans**

Although the number of integrated plans provides some estimate of the significance of plan integration in the private pension system, it does not provide a complete picture. Because many plans are small, this measure may exaggerate the importance of integrated plans. One alternative indicator is the number of participants in integrated plans. Because of constraints in the data, the available definition of *participant* covers more than just current employees.⁴ It generally includes all individuals who are entitled to a benefit under the plan; so retired employees and beneficiaries of deceased employees entitled to a benefit, among other categories, are reflected in the number of participants in a given plan. In practice, the term *participant* is almost synonymous with current employees in defined contribution plans because most former employees take their benefits with them when

FIGURE 6

Growth in the Number of Integrated Plans, 1993-1997

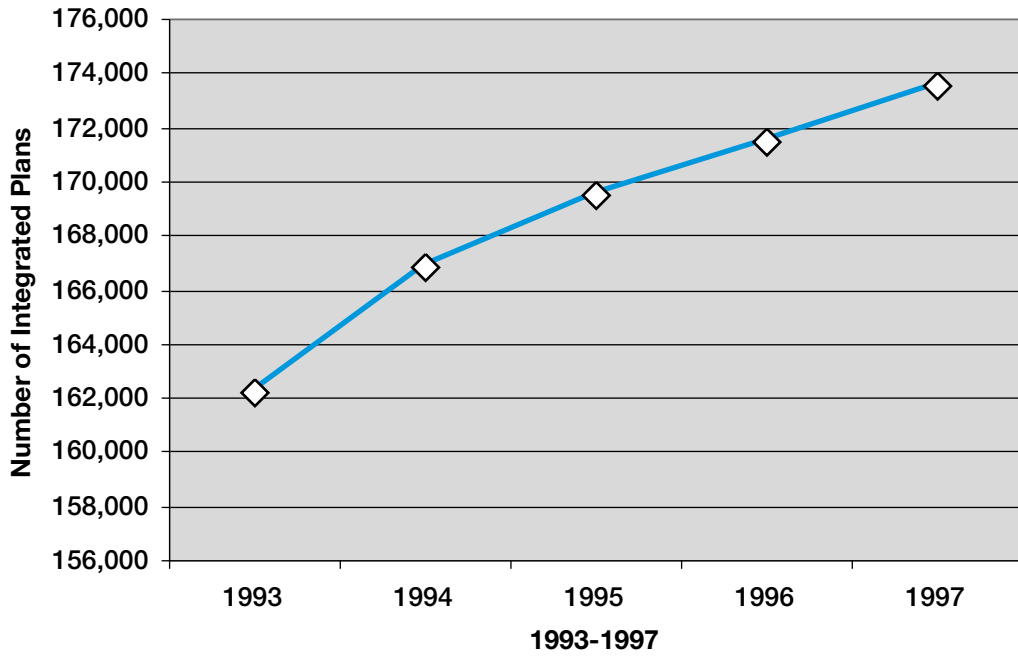


FIGURE 7

Number of Integrated Plans by Plan Type, 1993-1997

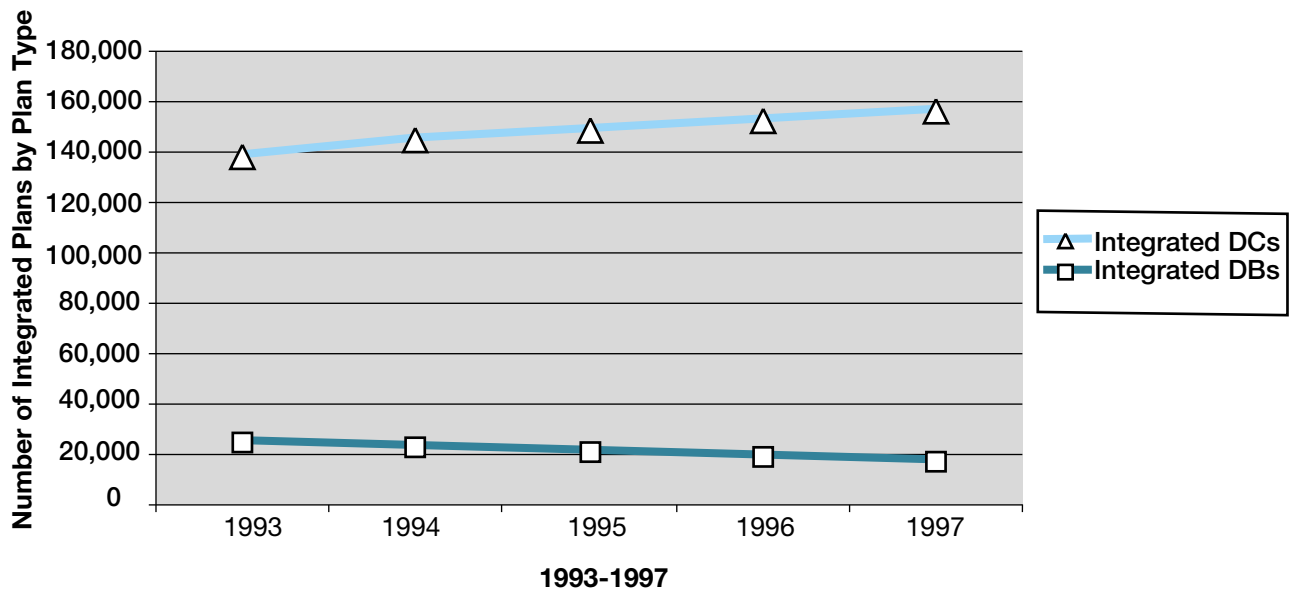
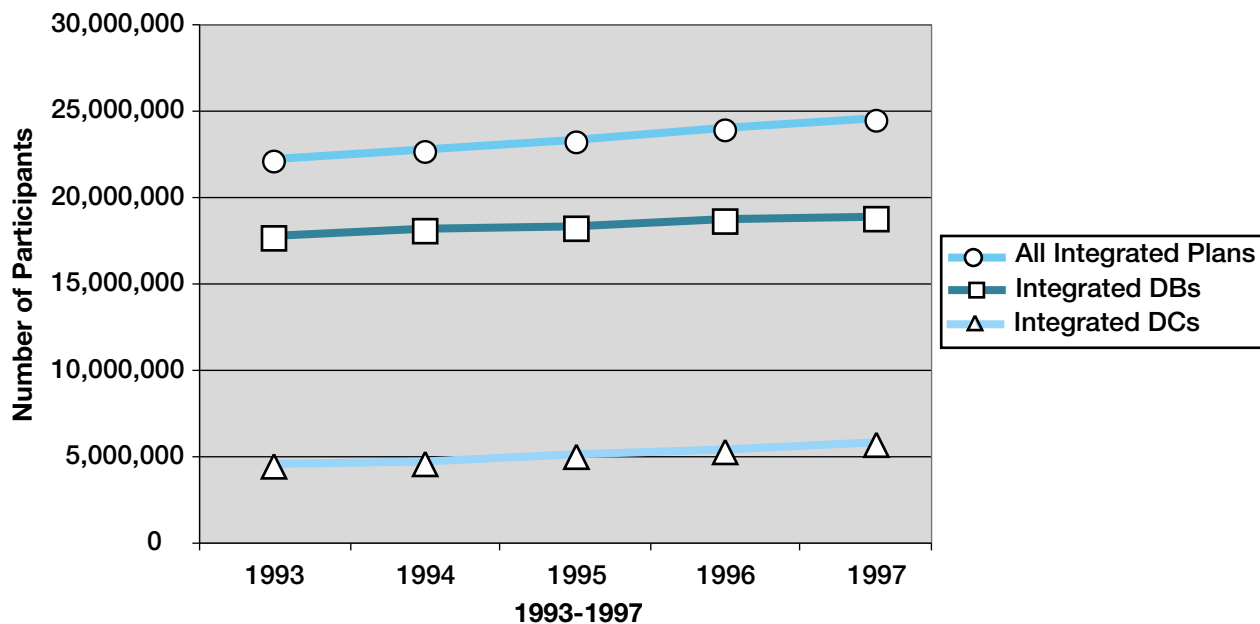


FIGURE 8

Number of Participants in Integrated Plans, 1993-1997



they leave. Defined benefit plans, on the other hand, usually require participants to attain retirement age before paying out benefits that then continue for many years. So the number of participants in these plans will include former employees who are waiting for benefits as well as retirees who are receiving them.

This analysis indicates that the number of participants in integrated plans grew along with the number of integrated plans during this period. Figure 8 illustrates the growth in participant counts in integrated plans during 1993-1997. It indicates, first, that the number of participants in integrated plans in this period grew by about 11%, from some 22 million participants in 1993 to over 24 million in 1997. This growth rate is about half that of nonintegrated plans, which increased by about 20% during these years, from some 66 million participants in 1993 to 79 million participants in 1997.

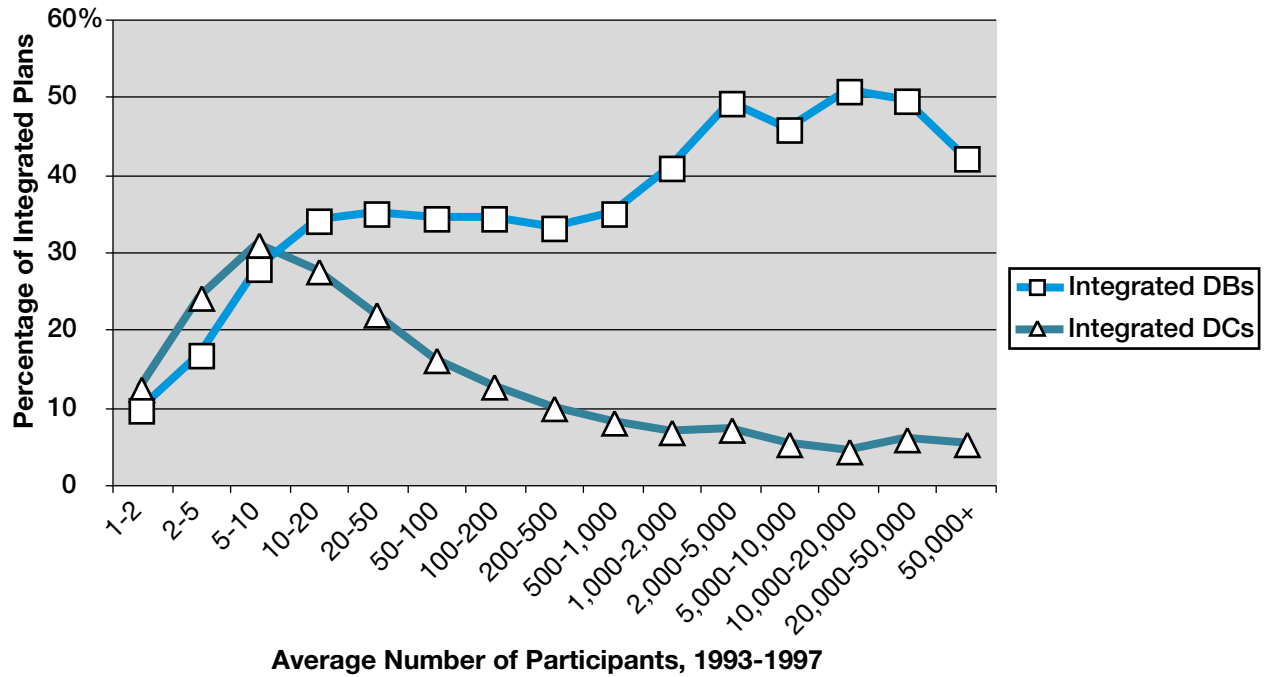
It is very important to remember that there is significant double counting in these numbers. Many employees participate in more than one plan, and the Form 5500 data provide no means of correcting for this. In general, it is rare for an

employee to participate in more than one defined benefit plan with the same employer, but it is very common to participate in more than one defined contribution plan. In addition, an employee will usually participate in only one integrated plan. Even if an employer sponsors multiple integrated plans, tax rules will limit the amount by which any employee's cumulative benefit across all plans can be integrated. So many employers prefer to restrict integration to a single plan to avoid the administrative burden of complying with this limit. It seems reasonable to assume, then, that the reported numbers for participation in defined benefit plans, whether or not integrated, should be prone to much less double counting than the numbers for defined contribution plans. It also seems likely, given the cumulative limits on integration across plans, that the reported numbers for participation in integrated defined contribution plans are relatively reliable. The numbers for participation in nonintegrated defined contribution plans, however, are clearly exaggerated but it is impossible to estimate by how much.

Figure 8 also indicates that, although there are far more integrated defined contribution

FIGURE 9

Integration by Plan Type and Size, 1993-1997



plans than defined benefit plans, the majority of participants in integrated plans are in defined benefit plans. But participation in integrated defined contribution plans is growing rapidly. In 1993, there were about 4.4 million participants in integrated defined contribution plans. By 1997, there were 5.6 million, an increase of about 29% during that period. Integrated defined benefit plans have about four times more participants. In 1993, there were almost 18 million participants in integrated defined benefit plans but, by 1997, that number had increased by only about one million participants, an increase of some 6%.

Because the double counting problem makes any conclusions about participation rates in integrated and nonintegrated defined contribution plans suspect, the most that can be safely said is that integrated defined contribution plans probably represent *at a minimum* some 10% of all defined contribution plan participants. In 1993, there were 41 million participants in noninte-

grated defined contribution plans, and that number increased to about 54 million in 1997.

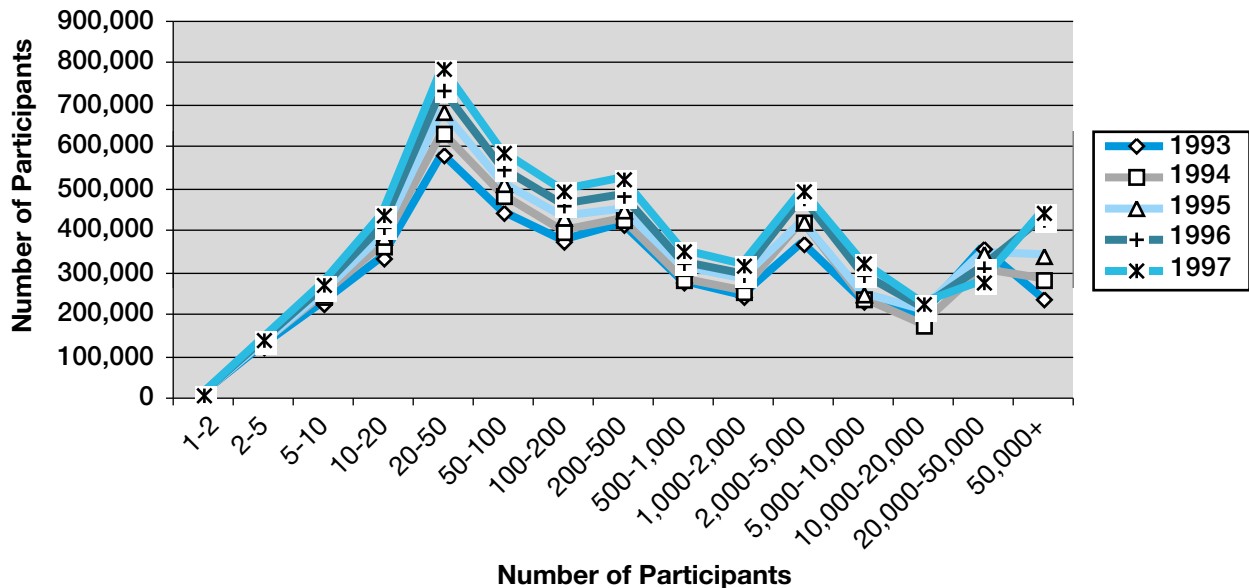
The story with respect to defined benefit plans is different. In 1993, there were 24.6 million participants in nonintegrated defined benefit plans, and that number increased to only 24.8 million by 1997. This rate of increase parallels that of integrated defined benefit plans. As a result, integrated defined benefit plans represented about 42% of all participants in defined benefit plans throughout this period.

Integration by Plan Type and Size

One of the reasons why there are more integrated defined contribution plans but integrated defined benefit plans have many more participants is that integrated defined contribution plans tend to be small. Figure 9 illustrates the percent of plans that are integrated by type and size of the plan, determined by using each plan's average number of participants during this five-

FIGURE 10

Yearly Participation in Integrated Defined Contribution Plans, 1993-1997



year period. It indicates that there is a bimodal distribution of integrated defined benefit and defined contribution plans in terms of plan size. Participants in integrated defined contribution plans are concentrated in small plans, and about 75% of integrated defined contribution plans have fewer than 20 participants. Less than 10% of defined contribution plans with more than 200 participants are integrated. Defined benefit plans exhibit a very different trend. They closely resemble integrated defined contribution plans among the smallest plans. As the size of the plan increases, however, so does the percent of integrated plans. Once defined benefit plans have more than 2,000 participants they represent about 45-50% of all such plans. The very largest plans, those with more than 50,000 participants, are slightly less likely (42%) to be integrated, but there are only a few (128) such plans.

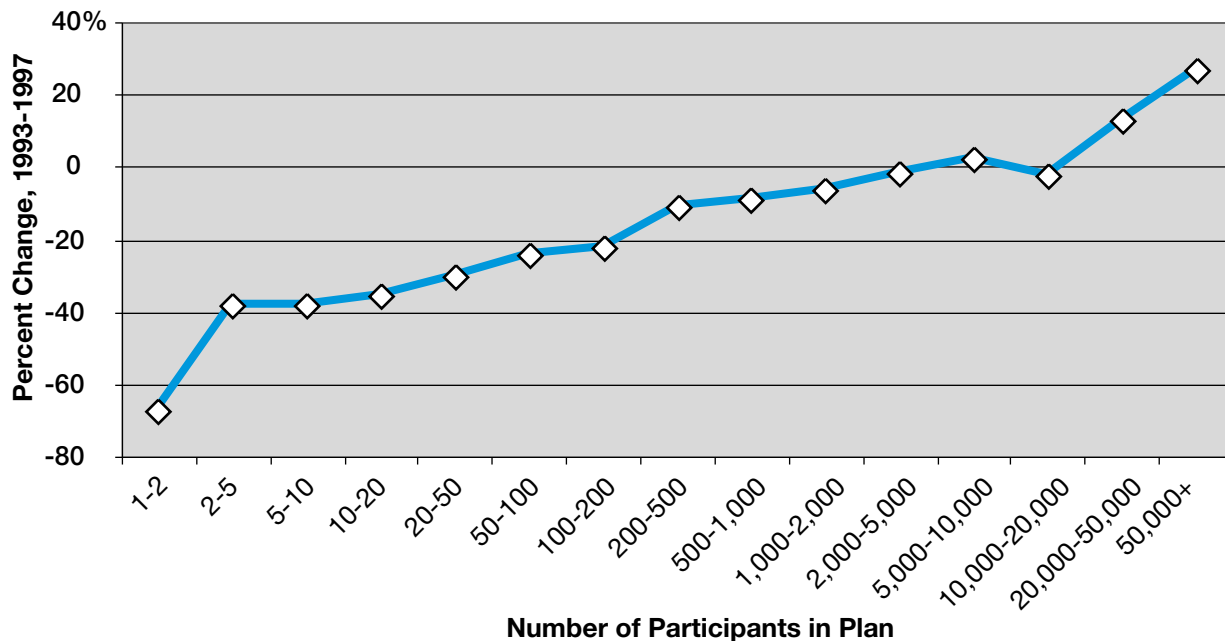
When participation is examined on a year-to-year basis rather than an average basis, the pattern of participation by plan size among integrated defined contribution plans is interesting. Figure 10 illustrates the number of participants in integrated defined contribution plans in each year. In almost every plan size, the number of

participants increased uniformly each year during this period. For example, the number of participants in each plan category with between ten and 200 participants increased by over 30% between 1993 and 1997. Similar rates of increase are found in some larger plans as well. Plans with between 1,000 and 5,000 participants also increased by over 30%, while plans with between 5,000 and 10,000 had the greatest percentage increase, 40%, during this period. The largest plan size, plans with more than 50,000 participants, had the highest percentage increase during this period. There are, however, only four plans in this category, so this change has little significance.

Integrated defined benefit plans exhibit a very different pattern during these years. Figure 11 depicts the percentage change in participation in each plan category between 1993 and 1997. It indicates that small integrated defined benefit plans, such as those with between one and 50 participants, experienced the greatest decrease in number of participants. As plan sizes increase, the decline in the number of participants also decreases. Plans with between 500 and 5,000 participants incurred only single digit losses. Only the largest plans, those with more

FIGURE 11

Percentage Change in Participation, 1993-1997, Integrated Defined Benefit Plans



than 20,000 participants, experienced any increase in participation, and there were so few plans in these categories that this increase has little significance. The pattern of decreased participation among integrated defined benefit plans is consistent with the experience of all defined benefit plans during this period, which saw a continued decline in the number of defined benefit plans, particularly those with relatively few participants.

Total Plan Assets

An additional indicator of the significance of integrated plans is their financial status as measured by their total assets during the 1993-1997 period. The term *assets* for this purpose means the value of all assets held in each plan at the end of every plan year. Figure 12 illustrates the assets held in integrated and nonintegrated plans each year between 1993 and 1997. Between 1993 and 1997, the assets for all types of plans increased significantly by almost 60%, from \$2.3 trillion to \$3.6 trillion. The assets held in nonintegrated defined contribution plans increased the

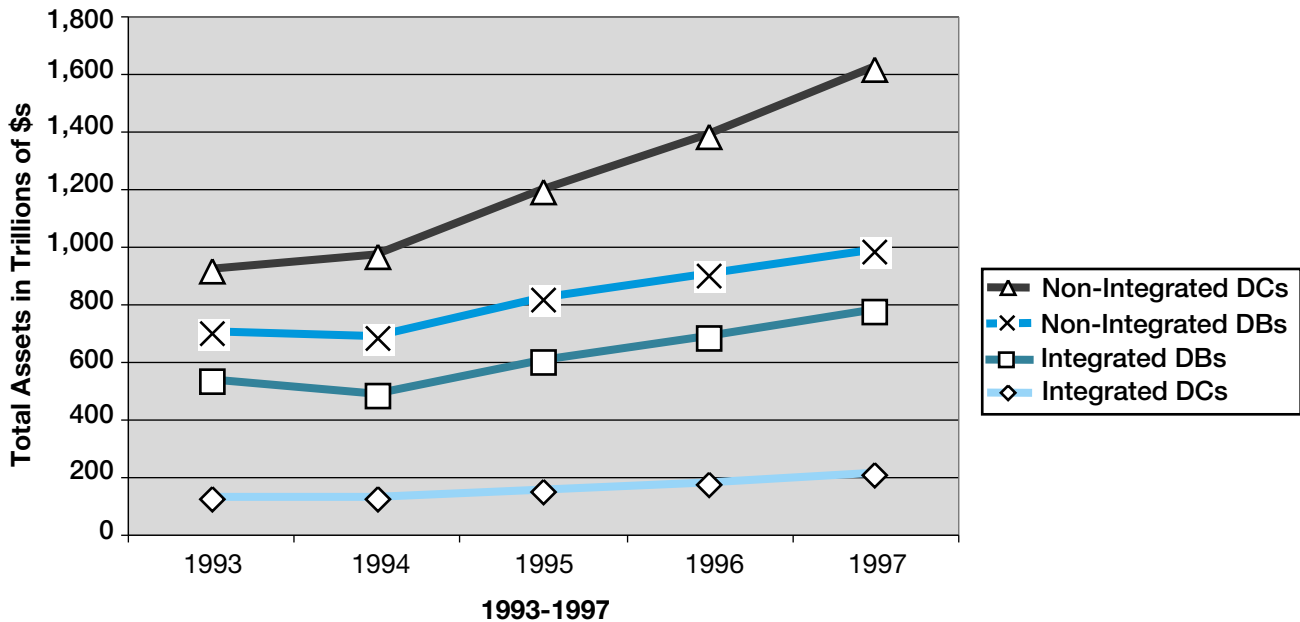
most as their value grew about 75%, from \$900 billion in 1993 to \$1.6 trillion in 1997. The assets held in integrated defined contribution plan assets are much smaller, only about 13% of those held in nonintegrated defined contribution plans. The value of these assets, however, also grew significantly, increasing from about \$126 billion in 1993 to \$205 billion in 1997, a 63% increase. The assets of integrated and nonintegrated defined benefit plans have a much smaller spread, and the assets in integrated defined benefit plans are the equivalent of 42% of those held in nonintegrated defined benefit plans. During this period, the assets of integrated defined benefit plans increased by some 44%, from \$536 billion in 1993 to \$774 billion in 1997. Assets in nonintegrated defined benefit plans increased by the smallest amount, 40%, from \$700 billion in 1993 to \$983 billion in 1997.

Other Plan Characteristics

The analysis revealed several other variables, with industry classification and union status being the most interesting, which provide more in-

FIGURE 12

Total Assets by Plan Type, 1993-1997



formation about integrated plans. All plans are required to indicate the SSIC classification of the plan sponsor on their Form 5500 each year. The largest number of all plans designated SSIC classification 8, which covers the health care industry and the professions. Some 52% of integrated defined contribution plans were in this category, as were 24% of integrated defined benefit plans. SSIC classification 5, which covers retail industries, was the second largest category and represented between 12-14% of integrated and nonintegrated plans. Union status also provided some interesting data that distinguish integrated from nonintegrated plans. Analysis of these data indicates that union plans are far less likely to be integrated. Only 5% of union defined contribution plans and 14% of union defined benefit plans were integrated. Among nonunion plans, the comparable percentages are 23% and 29%, respectively.

Predicting Plan Integration

In an effort to test what factors influence the use of plan integration, a series of logistic regres-

sions were performed on a number of variables in the data set. The data set is not rich in information about the characteristics of employers who sponsor plans, but it does provide some limited data about their corporate structure and the industry in which they operate. There is also information about whether a plan is a union plan, when it was created and how many low- and high-paid current employees there are in the plan, as well as in the company (or related companies) as a whole.

Table I describes the final set of variables used in the regression described below, and each variable is coded “1” if the defined characteristic is present and “0” if it is not. The variables indicate if the plan is a union plan, when it was created, its size, the industry code (SSIC) of the plan sponsor, its concentration of high- and low-paid employees, whether the plan sponsor was a single company or part of a controlled group, and the concentration of active employees.⁵ In general, these variables were selected to explore the following hypotheses about plan integration, namely, that integration is less likely

if the plan (1) is a union plan or (2) has a high percentage of low-paid workers, and more likely if the plan (1) is in the retail or health care industries or the professions, (2) is part of a controlled group of companies or (3) has a low percentage of active employees, if it is a defined benefit plan.

The results of the regression indicate that this set of variables is not a strong predictor of whether any given plan is an integrated plan. Largely because the data set contains so many observations, all the variables were statistically significant, but as a set they had low predictive power. The coefficients produced by the regression, however, can be used to indicate the probability of a plan's being integrated, given the observed values of the individual variables for that plan. Table II provides the regression coefficients and standard errors of each of the variables listed in Table I.

For example, a plan that is a defined benefit plan (that is, DB5, DB10 and DB1,000 all equal "1") has a 38% probability of being integrated. That probability changes when additional variables (each equaling "1") are added one at a time as follows. The probability of being an integrated defined benefit plan rises to about 45% if it is also either an SSIC classification 8 or an SSIC classification 5 plan. If it is a plan with a high percentage of low-paid workers, its probability of being integrated falls to 35% but rises to 50% if it has a high percentage of high-paid workers. Its integration probability also rises to 50% if it is a plan sponsored by a single employer and increases slightly more to 53% if the sponsor is part of a controlled group. But if it is a union plan, its probability of being integrated is only 13%. In addition, the probability of being an integrated defined benefit plan with a combination of an SSIC 8 classification, a high percentage of both high-paid workers and nonactive participants and sponsored by an employer that is part of a controlled group of corporations is 72%. If, instead of being just a "dying" plan, the plan actually terminated between 1993 and 1997 and had the other previously stated characteristics, its integration probability rises to 78%. In either case, its probability of being integrated decreases by some 30% if the plan is a union plan.

Alternatively, if a plan is a defined contribution plan with between two and 50 participants

TABLE I

| <i>Regression Variables</i> | |
|-----------------------------|---|
| Name | Definition |
| Union | Plan is a union plan |
| DB5 | DB has more than five participants |
| DB10 | DB has more than ten participants |
| DB1,000 | DB has more than 1,000 participants |
| DC2-50 | DC has between two and 50 participants |
| New DB | DB was created 1993-1997 |
| New DC | DC was created 1993-1997 |
| Ended DB | DB was terminated 1993-1997 |
| Ended DC | DC was terminated 1993-1997 |
| SIC5DB | DB in retail industries company |
| SIC5DC | DC in retail industries company |
| SIC8DB | DB in health care or professional services company |
| SIC8DC | DC in health care or professional services company |
| Low | Plan has a high percentage of low-paid employees |
| High | Plan has a high percentage of high-paid employees |
| Single | Employer is a single company |
| Group | Employer is part of a controlled group of companies |
| Early | Plan was created before 1983 |
| Mid '80s | Plan was created in the mid-1980s |
| Dying DB | DB has less than 75% active employees |

(DC2-50 equals "1"), its probability of being an integrated plan is just 14%. By changing one additional variable at a time, its probability of being an integrated plan rises to about 18% if it is also either an SSIC classification 8 or an SSIC classification 5 plan. If it is a plan with a high percentage of low-paid workers, its probability of being integrated falls to 13% but rises to 21% if it has a high percentage of high-paid workers. Its integration probability also rises to 21% if it is a plan sponsored by a single employer and increases slightly more to 23% if the sponsor is part of a controlled group. But if it is a union plan, its probability of being integrated is only 4%. The probability of being an integrated defined contribution plan in combination with having an SSIC 8 classification and a high percentage of both high-paid workers while included in a controlled group is 39%. If

TABLE II

Regression Results

| Variable | Beta | Standard Error |
|-----------------|-------------|-----------------------|
| Union | -1.38 | 0.03 |
| DB5 | 0.94 | 0.02 |
| DB10 | 0.55 | 0.02 |
| DB,1000 | 0.65 | 0.03 |
| DC2-50 | 0.81 | 0.01 |
| New DB | -0.03 | 0.02 |
| New DC | -0.03 | 0.01 |
| Ended DB | 0.38 | 0.02 |
| Ended DC | -0.07 | 0.01 |
| SIC5DB | 0.27 | 0.02 |
| SIC5DC | 0.19 | 0.01 |
| SIC8DB | 0.26 | 0.02 |
| SIC8DC | 0.59 | 0.01 |
| Low | -0.12 | 0.04 |
| High | 0.47 | 0.01 |
| Single | 0.47 | 0.02 |
| Group | 0.61 | 0.02 |
| Early | 0.02 | 0.01 |
| Mid '80s | 0.14 | 0.01 |
| Dying DB | 0.01 | 0.02 |
| Constant | -2.62 | 0.02 |

it is also a relatively “old” plan—that is, created in the mid-1980s—in addition to the variables described above, its integration probability rises to 42%. In either case, its probability of being integrated decreases by some 30% if the plan is a union plan.

The regression results largely confirm the hypotheses about plan integration. Union status substantially decreases the likelihood that a plan is integrated and having a high percentage of low-paid workers decreases it slightly. A plan is also more likely to be integrated if its sponsor is in the retail or health care industries or the professions and is part of a controlled group of companies. If the plan is a defined benefit plan, having a low percentage of active employees or actually terminating raises the likelihood of being an integrated plan.

The regression analysis indicates that, at least with respect to these variables, it is easier to account for integration among defined benefit than defined contribution plans. Integration in defined contribution plans remains a puzzle.

With the exception of union status, the regression variables are so much weaker for defined contribution than defined benefit plans that, as a set, they fail to account for even a 50% likelihood of plan integration. Obviously, there is much more to be learned about plan integration among defined contribution plans. It may be that there is much more variability among integrated defined contribution plans, given that there are so many more plans and so many plans are quite small, than among defined benefit plans. In any event, more research on integrated defined contribution plans is warranted because they are the future of plan integration. As a practical matter, it would be particularly helpful to have more data on the employers who sponsor integrated plans, their reasons for choosing an integrated plan and the characteristics of their workforces, in addition to more comprehensive information about all the plans they sponsor.

CONCLUSION

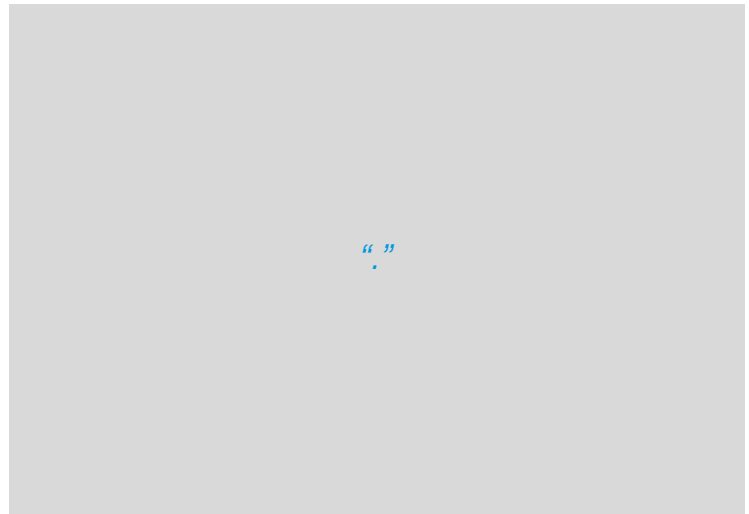
Integration with Social Security is a persistent and stable feature of the private pension system. One out of every four plans is an integrated plan, and the number of integrated plans increased by 7% between 1993 and 1997. Integrated plans exhibit very similar rates of plan creation and termination to those of nonintegrated plans. The number of participants in all integrated plans grew by 11% during this period to 24 million by 1997. Integrated plans are most commonly found in the health care industry and the professions (SSIC classification 8) and also in retail industries (SSIC classification 5). Union plans are far less likely to be integrated than other plans.

There are far fewer integrated defined benefit than integrated defined contribution plans, but slightly less than one out of every three defined benefit plans is an integrated plan. As measured by the number of participants on an annual basis, integration in defined benefit plans does not appear to be decreasing. These plans represented about 42% of participants in all defined benefit plans each year. Integrated defined benefit plans have about four times as many participants as integrated defined contribution plans, but they grew only modestly in participation (6%) between 1993 and 1997, to about 19 million participants. Integrated de-

defined benefit plans tend to be large and represent almost half of all plans with 2,000 or more participants. Integration will increasingly be a large plan phenomenon in the defined benefit world because the observed decline in the number and participation rates of small integrated defined benefit plans is expected to continue. Although there are fewer integrated defined benefit plans, the surviving plans seem to be financially stable. Their assets grew to \$774 billion by 1997, equivalent to about 42% of the assets in nonintegrated defined benefit plans.

Integrated defined contribution plans represent the wave of the future for integrated plans. Integration in such plans is not rare. As measured by the number of plans, about one in four defined contribution plans is integrated, and their numbers increased at the same rate (14%) as nonintegrated defined contribution plans from 1993 to 1997. As measured by the number of participants, some 5.6 million people participated in an integrated defined contribution plan by 1997. Unfortunately, it is difficult to estimate the proportion of defined contribution plans that are integrated with any rigor. Neither the number of plans nor the number of participants is an accurate measure; the first is biased by the various ways different plan types can be combined and the second is subject to double counting. It is evident, however, that integrated defined contribution plans tend to be small, with 75% having fewer than 20 participants. Even so, the number of participants in integrated defined contribution plans of all sizes increased in every year from 1993-1997. Moreover, by 1997, the total assets held in such plans were about \$205 billion, a 63% increase over 1993 values.

Regression analyses of several key variables were reasonably successful in accounting for integration in defined benefit plans. The likelihood of integration in such plans is related to not being a union plan and to having a high percentage of low-paid employees in the plan. It is also related to being a plan in the health care industry, the professions or the retail trade; to having a high percentage of high-paid employees in the plan; to being sponsored by a controlled group of corporations; and to having a large percentage of former employees in the



plan. The regression results for defined contribution plans were similar but much weaker.

Additional research will be required to broaden our understanding of integration in defined contribution plans. Such research will require, at a minimum, more data on the employers who sponsor integrated plans, their reasons for choosing an integrated plan and the characteristics of their workforces, in addition to more comprehensive information about all the plans they sponsor. Learning more about integration in defined contribution plans is important beyond the integration context. Defined contribution plan integration seems to be an important characteristic of very small plans. This suggests that integration may make plan sponsorship more attractive to small employers. Because this is the employer group where pension coverage issues are most acute, more research could contribute to an enhanced understanding of the dynamics of pension coverage. Finally, learning more about integration in defined contribution plans is both relevant and critical to the debate over Social Security reform. The primary effect of plan integration is to make low-paid workers even more dependent on Social Security for retirement income, and responsible proposals for reform will need to take that consequence into consideration. ◀

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clusions are solely those of the author and should not be construed as representing the opinions or policy of the Social Security Administration or any agency of the federal government, or the Center for Retirement Research at Boston College.

Endnotes

1. The discrepancies between the findings reported by Slusher and Bender are largely due to the different variables, HRS sub-samples and techniques used.
2. Detailed information on how the data set was constructed and analyzed can be found in Pamela Perun, "Social Security and the Private Pension System: The Significance of Integrated Plans," Boston College Center for Retirement Research Working Paper No. 2002-02, July 2002, available at www.bc.edu/centers/crr/wp_2002-02.shtml
3. The total number of plans in this data set in existence at any time during this period was 987,570.
4. Only plans filing the full Form 5500 were required to provide data on the different types of individuals—current employees, retired employees, etc.—in their plans. Plans filing the Form 5500C/R series were only required to give participant totals at the beginning and end of each plan. This article uses year-end participant counts for plans filing the Form 5500C/R series and the comparable data for plans filing the full Form 5500.
5. A plan was considered to have a high percentage of high-paid participants if its ratio percentage test, averaged over the available years, was between .7 and .9 and a high percentage of low-paid participants if its ratio percentage test, averaged over the available years, was greater than 2.

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