

Disposition of Lump-Sum Pension Distributions: Evidence from Tax Returns

Abstract - About one-third of the disbursements from pension plans are in the form of lump-sum distributions. In this paper, we use tax-return data to study the incidence and disposition of lump-sum distributions. We find that most lump-sum distributions are small, and the probability of rolling a lump sum over is positively correlated with the size of the distribution. Also, although lower-income families are less likely to roll over any given-sized distribution, these families are less likely to receive significant lump sums in the first place so that nonrolled lump sums (leakage from the pension system) are not significant relative to income.

INTRODUCTION

Accumulation through pensions and other before-tax retirement saving vehicles in the United States now accounts for the lion's share of net private saving.¹ According to the Federal Reserve Board's Flow of Funds Accounts and industry data on Individual Retirement Account (IRA) balances, assets held in pensions and IRAs rose from 10 percent of household sector net worth in 1980 to 30 percent by the end of 1998.² That growth in aggregate pension saving is encouraging from the perspective of securing economic well-being for future retirees, and also suggests that government revenues will swell when the imminent increases in pension benefits and IRA withdrawals show up in taxable income.

If all of the activity in retirement-oriented accounts could be neatly described as a process of steady contributions by employers and employees during the working phase of the life cycle followed by steady withdrawals through a life annuity that begins at retirement, it would be straightforward to predict the consequences of increased retirement saving for both economic well-being and revenues. There is, however, significant heterogeneity in taxpayer decisions regarding pensions. Those decisions include participation in employer-sponsored pension plans, contribution rates, and the

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¹ See Gale and Sabelhaus (1999).

² The Flow of Funds Accounts data are available in the quarterly Z1 release, and aggregate IRA data are taken from Fronstin (1998). See also Sabelhaus (1998).

topic of this paper: the decision about whether to spend or save lump-sum distributions from pensions.

There are competing social objectives with regards to tax policy toward lump-sum distributions. The availability of preretirement lump-sum distributions is desirable because it improves pension portability and therefore job mobility. On the other hand, making lump-sum distributions available to taxpayers before retirement may reverse some of the social benefit of offering tax breaks to pensions in the first place. In particular, some recipients of lump sums may be tempted to raid the nest egg when they receive a distribution. The current solution to the trade-off between portability and pension preservation in the U.S. tax code is to allow withdrawals from pensions under very loose guidelines, but to impose a penalty (in addition to the tax liability due) on preretirement pension withdrawals that are not rolled into another qualified account.

Penalties levied on pension and IRA withdrawals are significant. In 1995, just over 3 million tax returns (out of the total 118 million returns filed) reported penalties on withdrawals from retirement accounts. The total amount of penalty reported was about \$1.8 billion, which, because the penalty rate is 10 percent, indicates total withdrawals subject to penalty in the neighborhood of \$18 billion. Not all penalized withdrawals are the result of lump-sum pension distributions, of course; but not all lump-sum pension distributions subject to penalty are reported to the IRS, either.³

In this paper, we use data from individual tax returns to study the disposition of lump-sum distributions in aggregate and across various groups. We use a Statistics of Income (SOI) tax return microsample supplemented with tax-

payer information returns (Forms 1099R and 5498) for pension distributions and IRA flows. Those data allow us to observe all distributions from pension and IRA accounts, as well as the immediate disposition of those distributions. In particular, we can observe whether the distribution was rolled directly into a qualified account (IRA or another pension) or paid to the individual; if it was paid out to the individual, we can observe whether it is reported as taxable on Form 1040 or rolled into an IRA after the distribution was made.

Our first set of findings speaks directly to previous research on lump-sum dispositions carried out using various household-level survey data sources. We find that, although the tax data show much more lump-sum activity than previously indicated on direct household surveys, the general patterns of lump-sum incidence and rollover behavior are similar to the survey data. We are thus able to confirm a general finding from earlier studies: although most lump-sum events do not result in rollovers, most lump-sum dollars are rolled over, because (1) the distribution of lump sums is highly skewed toward small values and (2) the probability of rolling over a lump sum is positively correlated with the size of the distribution.

The second set of findings relates to the incidence of lump sums and rollover behavior across population subgroups. Although lower-income families are less likely to roll over any given-sized distribution, the fact that these families do not receive significant lump sums in the first place implies that overall leakage (relative to annual income) is not too great even for those groups. We cannot compare our group-level estimates of nonrolled lump sums to overall group-level pension wealth, which is the appropriate measure for normative analysis, but we do show

³ Other reasons for penalties include, for example, early withdrawal from IRAs and excess contributions to retirement accounts. The SOI data do not allow us to directly discern the exact source of the penalty because all of the various penalties are reported in total on one line of Form 1040.

that the fraction of income accounted for by nonrolled lump sums is small and does not vary significantly across most of the age-income distribution.

SURVEY-BASED RESEARCH ON PENSION ROLLOVERS

A number of previous studies have looked at pension-rollover decisions using household surveys in which respondents are asked about receipt and disposition of lump-sum distributions.⁴ The two main surveys that have been used to study the issue are the Employee Benefits Supplement (EBS) to the Current Population Survey, conducted in 1983, 1988, and 1993, and the Health and Retirement Study (HRS) longitudinal study of the cohort aged 51 to 61 in 1992. The HRS sample has been reinterviewed every two years since 1992.

Both the EBS and HRS data sets contain information about whether respondents have ever received a lump-sum distribution, and if so, what they did with it. The range of answers about disposition allows analysts to explore a number of different concepts about what it means to have "rolled over" the distribution. The concept of rollover can be defined narrowly to only include transferring the funds into a qualified account such as an IRA, or it can be defined more broadly to mean "not spending" the funds, which would include, for example, using the money to pay off debts.

Two recurring themes emerge from the various studies that have investigated rollover patterns using survey data. First, there is a big difference in disposition ten-

dencies with respect to numbers of rollover events and amount of dollars rolled over, because the distribution of lump sums is very skewed, and there is a positive correlation between the size of the lump sum and probability of rolling the distribution over. Second, there are a number of explanatory variables that are good predictors of rollover behavior, especially age and income. The patterns of rollover behavior with respect to these controls seem fairly stable across the various data sets and time periods studied. Each of these themes is discussed further, in turn.

The first general finding of the survey-based literature is that only about one-fourth to one-third of lump-sum distribution events result in direct rollovers, while a little over half to perhaps two-thirds of the dollar value of lump sums is rolled over, which implies that small lump sums are more frequent and less likely to be rolled over than large lump sums.⁵ This inference is based on a narrow concept of rollovers, which only counts transfers to other qualified-saving vehicles. At the other conceptual extreme, the data show that fewer than one-third of recipients report spending their lump-sum distributions on consumption, and only one-eighth of the dollar value of lump sums goes toward consumption.⁶ In between the one-fourth rolling over funds to qualified accounts and the one-third spending the funds on consumption is nearly half of the population paying off debts and making taxable investments.

The second general finding of the survey-based lump-sum research is that age, income, and other demographic variables are good predictors of rollover decisions,

⁴ Some papers in this literature include, in chronological order, Poterba, Venti, and Wise (1995); Chang (1996); Bassett, Fleming, and Rodrigues (1998); and Burman and Coe (1998).

⁵ The lower bound is based on the 1993 EBS; see for example, Burman and Coe (1998) or Bassett, Fleming, and Rodrigues (1998). The upper bounds are from the HRS and thus apply to the 52 to 61-year-old age group; see, for example, Poterba, Venti, and Wise (1995). The difference does not appear to be a function of the age restriction, however, because Poterba, Venti, and Wise show that rollover propensities for the 52 to 61-year-old group in the EBS are similar to those for the entire EBS population. Rather, it is probably attributable to better questions on the HRS and the fact that lump sums are topcoded at \$100,000 on the EBS.

⁶ Bassett, Fleming, and Rodrigues (1998), based on the 1993 EBS.

even after controlling for the size of rollovers. The probability of rolling over a lump sum rises significantly with age; Poterba, Venti, and Wise (1998) find that a 55 to 64 year old is more than twice as likely to roll a distribution than a 35 to 44 year old. They also find that income is important—families with income greater than \$50,000 per year are twice as likely to roll a distribution than families with \$30,000 to \$50,000 income.⁷ These sorts of findings generally confirm the fears that lump-sum distribution rules currently in place may be indirectly undoing the effects of the hotly debated nondiscrimination rules imposed on pension providers. Nondiscrimination rules require employers to provide benefits to a large cross section of employees if any group of employees is to receive coverage, but the types of employees the rules are designed to protect are the ones more likely to spend their lump-sum distributions.

One potentially important critique of these survey-based rollover studies is that a lot of lump-sum distribution activity seems to be going unreported in the household-level data. For example, the 1993 EBS indicates that 1.5 million lump-sum distributions occurred in 1992, and the average lump sum was \$13,900, for a total of just over \$20 billion in rollovers.⁸ Using various aggregate data sources, Woods (1996) estimates that lump-sum pension distributions were probably \$65 to \$70 billion in 1990, and it is likely that rollovers grew between 1990 and 1992.

Yakoboski (1994) used tax data to estimate lump-sum distributions for 1990 and found an aggregate value over \$100 billion. Woods (1996) noted some conceptual shortcomings of the Yakoboski (1994) estimate; Yakoboski subsequently adjusted his estimate to just over \$80 billion in aggregate lump-sum distributions for 1990.⁹ The revised \$80 billion estimate is only slightly higher than Woods (1996), and thus confirms that the survey-based EBS seems to be missing two-thirds to three-fourths of lump-sum distribution dollars.

There are no survey data for 1995, the year we are looking at in this paper, but it is possible to get a sense of how lump-sum distributions and rollovers might have changed over time using generally available tax-return data. Figure 1 shows the difference between gross and taxable pension distributions as reported by taxpayers on Form 1040 between 1980 and 1996. Most of the divergence between gross and taxable pensions is due to rollovers, but the relationship is not perfect because some pension benefits reported to taxpayers include the return of after-tax employee contributions that are not taxable and some lump-sum distributions on Form 1040 are taxable because they are not rolled over.¹⁰ Given the expansion of before-tax retirement saving vehicles in the last few decades, it is unlikely that return of after-tax contributions has grown much if at all, and therefore, most of the growth in the gap between taxable and nontaxable withdrawals is probably due to rollovers.¹¹

⁷ Other authors use different specifications and find that other correlates are also important. Bassett, Fleming, and Rodrigues (1998) find statistically significant effects from homeownership, marital status, and the presence of children in their equations. Interestingly, Chang (1996) uses an estimate of the marginal tax price of rollovers in her equation and does not find the same level of significance for other covariates as in the other studies.

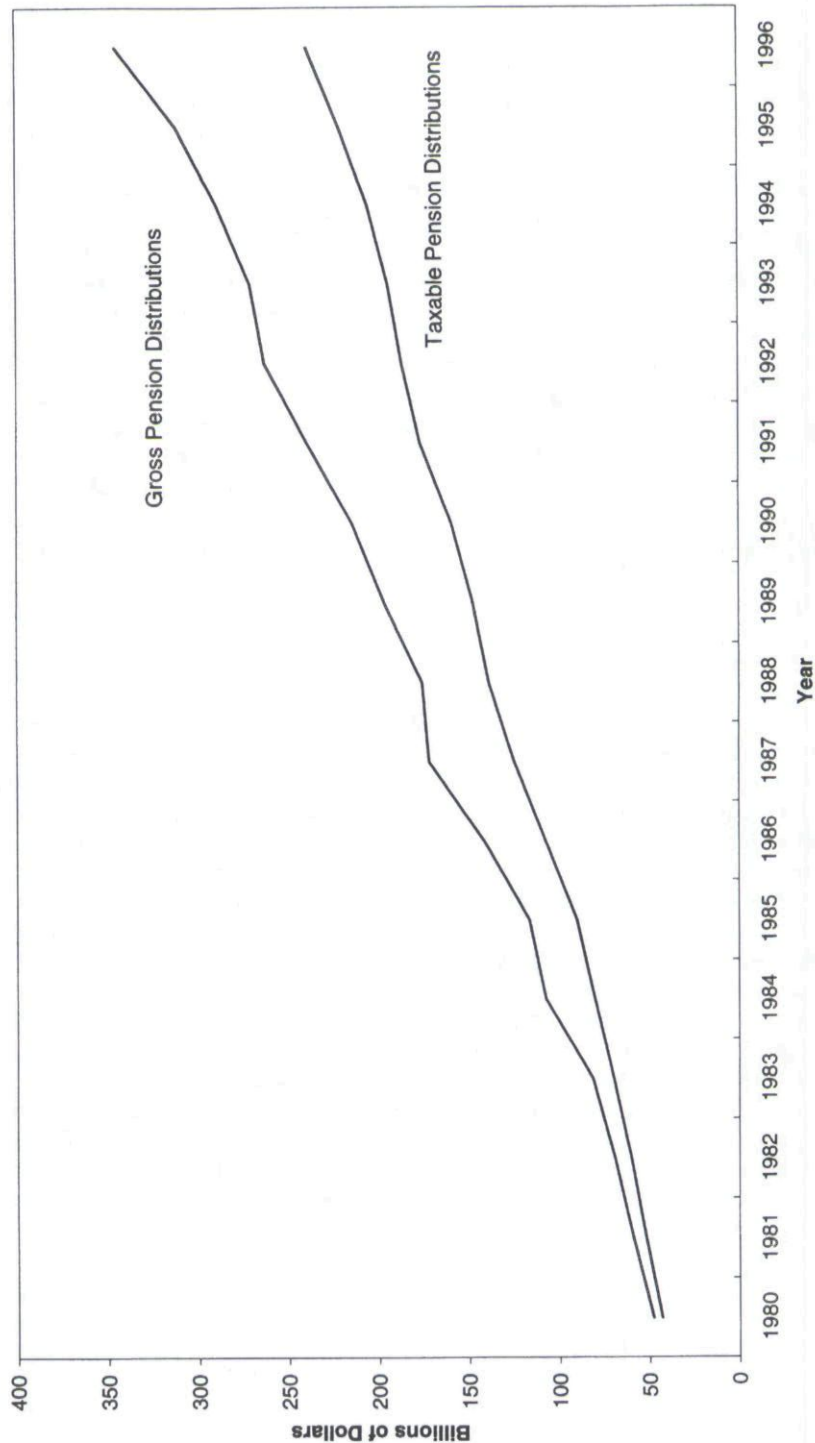
⁸ Our thanks to Norma Coe of the U.S. Treasury for providing these EBS estimates for 1992, which are published as part of a larger aggregate in Burman and Coe (1998).

⁹ See Yakoboski (1997).

¹⁰ Total and nontaxable pension distributions on 1040 will also be underreported if taxpayers rolled over their lump sum and erred in believing they were not required to report that nontaxable event.

¹¹ The other piece of evidence from Form 1040 is that most nontaxable distribution dollars occur for taxpayers where virtually the entire distribution was nontaxable, suggesting a rollover event took place, rather than a pension disbursement in which a small fraction of the benefit represents after-tax contributions.

Figure 1. Gross and Taxable Distributions on Form 1040



The Form 1040 data for 1992 suggests a gross-taxable gap of over \$75 billion, which is well above the \$20 billion EBS rollover estimate and in the neighborhood of the Woods (1996) and Yakoboski (1997) estimates. The graph also suggests that rollovers have probably become even more important since 1992, perhaps passing \$100 billion in 1996. Because it appears that the surveys are only capturing a fraction of the lump-sum distributions that occur, the interesting question is whether the activity that is reported on the survey is representative, particularly with respect to the control variables in which we are interested, such as income and age.

MEASURING ROLLOVERS USING TAX DATA

The alternative to working with household survey data is to analyze lump-sum distributions and rollovers using a sample of tax returns. There are some trade-offs when moving from household-survey to tax-return data—we don't know anything about the taxpayer that cannot be obtained from tax or Social Security records, and the exact concept of a "lump-sum" distribution is somewhat difficult to pin down. But the benefits of using tax returns to study rollovers include not having to worry about respondents' ability to recall complicated financial transactions and not having to deal with topcoding of data or under-sampling at the top of the income distribution where much of the dollar-weighted lump-sum distribution activity occurs.

The ambiguity associated with measuring pension rollovers on tax returns is best characterized after describing the data

we have to work with.¹² First, for each taxpayer, we observe their Form 1040 reporting of gross and taxable pension distributions—one of the reasons a gross distribution is not taxable is if it is rolled over, and that will be reflected on Form 1040. In addition to the Form 1040 data, we also observe the Form 1099R generated when the taxpayer receives a distribution from a pension, annuity, profit sharing, insurance contract, or IRA. The Form 1099R characterizes each disbursement using 1 of about 20 distribution codes that indicate, for example, whether the distribution is rolled directly into an IRA or another qualified account. The Form 1099R also indicates whether the distribution is partial or full, from an IRA or not, and, in some cases, whether the payer believes the distribution is taxable.

There are at least two sources of possible discrepancy between Form 1099R and Form 1040, in the sense that total gross pension distributions reported on Form 1099Rs do not match gross pension distributions reported on Form 1040. In particular, some taxpayers may not be aware they are supposed to report certain non-taxable transactions (such as rollovers from pensions to IRAs) on their Form 1040. There is also a possibility of statistical mismatch, insofar as taxpayer identifiers on the Form 1040 and Form 1099R data sets differ slightly because of coding or reporting errors. Because the SOI is the base data set, the statistical mismatch will generally lead to situations where pension distributions are found on Form 1040, but there is no Form 1099R that shows the source or nature of the distribution.¹³

¹² The Appendix has more details about how we processed the SOI and information returns data sets used in the paper.

¹³ The SOI data set is the base in the sense that taxpayer identification numbers from the SOI sample are used to pull Form 1099R and other information returns from the IRS master data file for each type of information return. It is unlikely that the error will work in the other direction—SOI sample members being mistakenly assigned a Form 1099R that truly belongs to someone else, because that would involve the other party or an intermediate data processor entering the SOI sample member's identifier on the information return, or the SOI sample member entering the other person's identifier on their Form 1040. Thus, when we observe a Form 1099R that indicates a distribution and no corresponding entry on the Form 1040, we will generally interpret it as noncompliance.

The extent to which Form 1099R and Form 1040 disagree about pension distributions for 1995 is indicated in Table 1. Line 1 indicates there is a total of \$344.8 billion of gross distributions on Form 1099R in 1995. Of that, \$22.5 billion that should have shown up on Form 1040 as taxable pension distributions (line 10) was not reported, perhaps because of noncompliance. But at the same time, \$29.1 billion of gross distributions that were not associated with any Form 1099R distribution did show up on Form 1040 (line 11), probably because of statistical matching problem or because taxpayers inappropriately reported some other form of income as a pension distribution. In total, the Form 1099R and Form 1040 data together indicate that between \$345 and \$375 billion in gross pension distributions occurred in 1995, and approximately \$320 billion of that is common to the two.¹⁴

The main split on pension distributions in Table 1 is between taxable and nontaxable. Within the distributions on 1099R,

\$122.4 billion was designated nontaxable and \$222.4 billion was taxable. Distributions were designated nontaxable if they were rolled directly into an IRA or other qualified account (\$83.7 billion), if an attached Form 5498 indicated a rollover contribution to an IRA not accounted for by any other 1099R distribution (\$7.7 billion), or if the Form 1099R indicated the distribution was nontaxable for some other reason (\$31.1 billion). Within the category of "other reported non-taxable" distributions, there are some identifiable transactions such as Section 1035 exchanges of one pension for another (\$9.5 billion) but also other cases where the 1099R issuer indicated to the recipient that the distribution was not taxable (\$21.6 billion).¹⁵

Within taxable distributions on Form 1099R of \$222.4 billion, \$200.0 billion showed up on Form 1040, of which \$9.9 billion was subject to an early withdrawal penalty. A simple explanation for the missing \$22.5 billion is noncompliance—taxpayers received the 1099R indicating a

TABLE 1
PENSION DISTRIBUTIONS ON THE MATCHED SOI/INFORMATION RETURNS DATA SET, 1995

Gross distributions reported on Form 1099	\$344.8
Nontaxable distributions reported on Form 1099	122.4
Direct distributions to IRAs and other qualified accounts	83.7
Rollovers to IRAs measured indirectly on Form 5498	7.7
Other reported nontaxable distributions	31.1
Section 1035 exchanges and overpayments	9.5
Other types of nontaxable distributions	21.6
Taxable distributions reported on Form 1099	222.4
Taxable distribution reported on Form 1040	200.0
Penalized distributions	9.9
Nonpenalized distributions	190.0
Taxable distribution not reported on Form 1040	22.5
Gross distributions reported on Form 1040, but not Form 1099	29.1
Taxable distributions	21.1
Nontaxable distributions	8.1

Source: Authors' tabulations of 1995 matched SOI/IRMF data set.

¹⁴ There are also some pension distributions paid to legitimate nonfilers that we are missing; although a Form 1099R was issued, no Form 1040 was filed, so those families are not in the SOI. By definition, however, the incomes of those families are not very high or they would have filed returns.

¹⁵ It is important to note that we can only indirectly infer that the 1099R indicates a distribution is nontaxable. For it to be nontaxable, there has to be a gross distribution with no corresponding taxable amount and the "taxable amount not determined" box must remain unchecked. Only then can we infer that the 1099R issuer thought through the tax consequences of the distribution and decided it was not taxable. If they did not enter a taxable dollar value, but had not thought it through, they should have checked "taxable amount not determined."

pension distribution had been made and did not report the amount. There is at least one other possibility that does not imply malfeasance, however—these amounts might have been indirectly rolled into an IRA (as was the \$7.7 billion on line 4), but the associated Form 5498 was not matched to the appropriate taxpayer for some reason, perhaps because of calendar and tax-year timing problems.

The second break on the pension distributions that moves us in the direction of identifying lump-sum distributions and rollovers is shown in Table 2. For pension distributions reported on Form 1099R, Table 2 simply splits each line on Table 1 into partial and full distributions. One might characterize lump-sum distributions as only having occurred when a pension account is liquidated, that is, a full distribution. However, the interaction of distribution type and partial versus full distributions in Table 2 suggests that other tenable measures of lump sums and

associated rollovers can also be generated using these data.

Our first measure of lump-sum activity is restricted to the full distribution column, and we will therefore refer to it as the "narrow" measure. Overall, there was \$103.5 billion in full distributions from pensions in 1995, of which \$83.2 billion was nontaxable. But it is inappropriate to include Section 1035 exchanges (one type of pension for another) and overpayments; excluding them lowers the lump-sum aggregate to \$95.7 billion, of which \$75.4 billion is nontaxable. Although it is not clear what is included in "other types of non-taxable distributions," there is good reason to believe those should also be excluded, and thus the narrow lump-sum estimate is \$87.2 billion and the nontaxable (narrow rollover) portion is \$66.8 billion, or about 77 percent of the total.¹⁶

Rather than focus simply on full distributions, one can also define lump sums very broadly as any pension distribution

TABLE 2
PARTIAL AND FULL PENSION DISTRIBUTIONS BY TYPE OF DISTRIBUTION, 1995
(BILLIONS OF DOLLARS)

	Partial Distributions	Full Distributions	All Distributions
Gross distributions reported on Form 1099	\$241.3	\$103.5	\$344.8
Nontaxable distributions reported on Form 1099	39.3	83.2	122.4
Direct distributions to IRAs and other qualified accounts	19.2	64.4	83.7
Rollovers to IRAs measured indirectly on Form 5498	5.2	2.4	7.7
Other reported nontaxable distributions	14.8	16.3	31.1
Section 1035 exchanges and overpayments	1.7	7.8	9.5
Other types of nontaxable distributions	13.1	8.5	21.6
Taxable distributions reported on Form 1099	202.1	20.4	222.4
Taxable distribution reported on Form 1040	186.1	13.8	200.0
Penalized distributions	3.5	6.4	9.9
Nonpenalized distributions	182.6	7.4	190.0
Taxable distribution not reported on Form 1040	15.9	6.6	22.5
Gross distributions reported on Form 1040, but not Form 1099	—	—	29.1
Taxable distributions	—	—	21.1
Nontaxable distributions	—	—	8.1

Source: Authors' tabulations of 1995 matched SOI/IRMF data set.

¹⁶ Woods (1996) describes this and other possible adjustments to tax-based lump-sum estimates. The other types of distributions that may be included in the reported nontaxable category are return of the cash value in life insurance policies, loans over \$50,000 from qualified accounts, and total distributions from privately purchased annuity contracts. There are no direct data sources for these flows.

that is *not* a taxable, nonpenalized, partial distribution. The level of taxable, nonpenalized, partial distributions in 1995 was \$182.6 billion (partial distribution column), which implies a total lump-sum distribution level of \$162.2 billion based on the Form 1099R data (\$344.8 billion total less \$182.6 billion) and something higher if any of the extra pension distributions on Form 1040 (\$29.1 billion) are included. Again, however, it makes sense to exclude nontaxable distributions (\$31.1 billion), which lowers the aggregate lump-sum distribution value to \$131.1 billion. The direct and indirect rollovers together account for \$91.4 billion of lump-sum distributions (\$83.7 billion plus \$7.7 billion), which represents 70 percent of the total. Thus, the fraction of broadly defined lump sums rolled over is a few percentage points lower than the narrow measure.

Whichever tax-based measure is used to analyze lump sums, it is clear that a lot of money is involved. Lump sums represented between 25 and 40 percent of total pension disbursements in 1995, depending on whether the narrow or broad measure is used and whether just Form 1099R distributions or the superset of Form 1040 and Form 1099R distributions is used to measure total pension payouts. Lump sums are also a noticeable share of aggregate pension balances; based on Flow of Funds Account data from the Federal Reserve Board, lump sums represented about 1.7 to 2.6 percent of beginning-of-year pension assets in 1995, again depending on whether the narrow or broad measure is used. And total pension assets may not even be the appropriate base; lump-sum distributions equaled about 7.3 to 10.9 percent of the beginning-of-year balances in private defined-contribution pensions.¹⁷

INCIDENCE AND ROLLOVERS OF LUMP-SUM DISTRIBUTIONS ACROSS GROUPS

Both the narrow and broad measures of aggregate lump-sum distributions reported on Form 1099R are quite large—between \$87 and \$130 billion of lump-sum disbursements were made in 1995, and approximately 75 percent of that was rolled over directly to another qualified account. In this section, we explore the incidence of lump-sum distributions across age and income groups using both the narrow and broad lump-sum measures. We also investigate what determines the rollover decision, focusing on the size of the lump sum along with age and income.

Table 3 shows the fraction of taxpayers receiving lump-sum distributions and the average size of distributions using both the narrow and broad measures. The tax data indicate that, overall, 4.7 percent of taxpayers received a lump sum if we use the narrow concept, but the fraction rises to 8.5 percent using the broad concept. The average lump sum was \$15,637 using the narrow concept and \$13,106 using the broad measure.

Table 3 shows the expected relationship between lump-sum distributions and age—both the probability of getting a distribution and the average distribution rise through the age when most people retire (age 60 to 64) and then fall off. What seems striking, however, is that the pattern is not more hump shaped: using the narrow measure, taxpayers aged 60 to 64 are only slightly more likely to get a distribution than taxpayers in other age groups. There is a steeper increase across the age distribution using the broad measure, but at the same time, the average size does not rise as rapidly.

¹⁷ The FFA data are from the Z1 release dated March 12, 1999. Total pension sector assets were \$5.1 trillion in the beginning of 1995. Of that, \$0.9 trillion was held at life insurance companies, \$1.2 trillion in private defined-benefit plans, \$1.2 trillion in private defined-contribution plans, \$1.3 trillion in state and local government employee pensions, and \$0.5 trillion in federal employee retirement plans.

TABLE 3
INCIDENCE AND SIZE OF LUMP-SUM DISTRIBUTIONS BY AGE AND INCOME

	Number of Tax Returns (Thousands)	Narrow Lump-Sum Measure		Broad Lump-Sum Measure	
		Percent with Lump Sum	Average Lump Sum	Percent with Lump Sum	Average Lump Sum
By age of primary taxpayer					
Less than 30	31,541	2.7%	\$2,455	3.3%	\$2,448
30 to 34	12,706	6.7	5,884	8.6	5,569
35 to 39	12,843	5.4	8,817	8.4	8,095
40 to 44	11,532	5.4	10,578	8.5	9,746
45 to 49	10,162	5.8	16,080	10.4	12,741
50 to 54	7,940	5.5	24,356	10.6	19,531
55 to 59	6,339	5.7	35,924	12.2	25,441
60 to 64	5,198	6.9	43,139	16.1	26,414
65 to 69	4,669	6.1	37,074	18.0	20,423
70 and older	9,636	3.9	19,131	12.1	11,286
All ages ^a	118,220	4.7	15,637	8.5	13,106
By AGI					
Less than \$10,000 ^b	28,733	1.6	3,590	3.0	4,943
\$10,000 to \$19,999	24,953	3.5	7,515	6.6	6,357
\$20,000 to \$29,999	17,812	5.3	8,033	9.3	7,127
\$30,000 to \$39,999	12,384	6.1	8,612	10.5	7,667
\$40,000 to \$49,999	9,097	6.5	10,151	11.6	11,025
\$50,000 to \$74,999	13,678	7.5	18,208	13.5	14,463
\$75,000 to \$99,999	5,375	9.0	27,555	15.5	22,259
\$100,000 or more	5,348	8.1	61,353	14.2	48,932
All incomes	118,220	4.7	15,637	8.5	13,106

Source: Authors' tabulations of 1995 matched SOI/IRMF data set.

^aIncludes taxpayers for whom age is missing, not shown separately.

^bExcludes taxpayers with negative AGI, are included in total.

Table 3 also shows that higher income taxpayers are more likely to get a lump sum, and if they do, the distribution will usually be much larger than at lower income levels.¹⁸ While the incidence of both narrow and broad distributions rises by about 50 percent as we move from the median income (\$20,000 to \$30,000 adjusted gross income (AGI)) group to the highest income (over \$100,000 AGI) group, the average lump sum goes up by a factor of about seven in both cases. Again, however, what jumps out of the table is how many taxpayers in the bottom half or two-thirds of the income distribution are getting lump sums, and how big those distributions are: in the median income

group, 5 to 10 percent of taxpayers are getting distributions, and the average distribution is about 30 percent of average AGI in that group.

Tables 4 (narrow measure) and 5 (broad measure) again stretch the data across age and income groups, but add the dimension of distribution size. The overall distribution of lump sums is highly skewed toward smaller amounts: although average narrow distributions are over \$15,000, about one-third (1.5 percent of taxpayers out of 4.7 percent getting narrow lump sums) are less than \$1,000, and another one-third are between \$1,000 and \$5,000. The skewness of broad distributions (Table 5) is similar.

¹⁸ The classifier used in the bottom half of Table 3 and throughout the rest of the paper is reported AGI, which includes some nonrolled lump-sum pension distributions. We tested various other classifiers that excluded all or part of pension income from AGI and the results do not change significantly.

TABLE 4
INCIDENCE OF NARROWLY DEFINED LUMP-SUM DISTRIBUTIONS BY AGE,
INCOME, AND SIZE OF DISTRIBUTION

	Number of Tax Returns (Thousands)	Size of Lump-Sum Distribution					
		Less Than \$1,000	\$1,000 to \$5,000	\$5,000 to \$20,000	\$20,000 to \$100,000	\$100,000 or Larger	All Lump Sums
By age of primary taxpayer							
Less than 30	31,541	1.4%	1.0%	2.0%	0.0%	0.0%	2.7%
30 to 34	12,706	2.5	2.3	1.3	0.5	0.0	6.7
35 to 39	12,843	1.7	1.9	1.3	0.5	0.0	5.4
40 to 44	11,532	1.6	2.0	1.2	0.6	0.1	5.4
45 to 49	10,162	1.6	1.8	1.4	0.7	0.2	5.8
50 to 54	7,940	1.5	1.5	1.2	1.0	0.3	5.5
55 to 59	6,339	1.0	1.9	1.2	1.2	0.4	5.7
60 to 64	5,198	1.0	1.9	1.6	1.7	0.7	6.9
65 to 69	4,669	1.6	1.6	1.2	1.2	0.6	6.1
70 and older	9,636	1.3	1.2	0.8	0.4	0.2	3.9
All ages*	118,220	1.5	1.5	0.9	0.5	0.1	4.7
By AGI							
Less than \$10,000*	28,733	0.9	0.4	0.1	0.0	0.0	1.6
\$10,000 to \$19,999	24,953	1.6	1.2	0.5	0.2	0.0	3.5
\$20,000 to \$29,999	17,812	1.9	1.9	1.1	0.3	0.1	5.3
\$30,000 to \$39,999	12,384	2.1	2.1	1.2	0.6	0.1	6.1
\$40,000 to \$49,999	9,097	1.8	2.6	1.3	0.7	0.1	6.5
\$50,000 to \$74,999	13,678	1.8	2.4	1.9	1.1	0.3	7.5
\$75,000 to \$99,999	5,375	1.2	2.9	2.2	2.2	0.5	9.0
\$100,000 or more	5,348	1.0	1.6	1.9	2.5	1.1	8.1
All incomes	118,220	1.5	1.5	0.9	0.5	0.1	4.7

Source: Authors' tabulations of 1995 matched SOI/IRMF data set.

^aIncludes taxpayers for whom age is missing, not shown separately.

^bExcludes taxpayers with negative AGI, included in total.

Tables 6 (narrow) and 7 (broad) show the fraction of lump-sum distributions rolled over by age and size of distribution, then by income and size of distribution. Both tables indicate that the probability that a lump sum will be rolled over is positively correlated with size of the distribution, rising from 12 percent (broad) to 17 percent (narrow) of lump sums in the less than \$1,000 size class to over 90 percent (both) in the \$100,000 or larger distribution class. Overall, as noted in the aggregate analysis above, 70 to 77 percent of lump-sum dollars are rolled over, depending on the measure chosen.

Controlling for size of distribution, there is little perceptible difference by age in terms of propensity to roll over lump sums, but there is a strong positive correlation with income. In both Tables 6 and

7, there is an increase in the total fraction of lump sums rolled over as age increases from the less than 30-year-old group to the 60 to 64-year-old (retirement-age) group, but that is driven by increases in the size of lump sums as age rises, not an underlying increase in the propensity to roll over a distribution of a given size. The effect of income is more noticeable, however, as the propensity to roll over a distribution of a given size rises with income.

To put these propositions to a more formal test, we ran a simple logit regression relating the probability of a rollover to the size of the distribution and dummies for the age and income groups shown in Tables 6 and 7. The results of the estimation for both narrow and broad rollovers are shown in Table 8. As expected, the size of the distribution is the most significant

TABLE 5
INCIDENCE OF BROADLY DEFINED LUMP-SUM DISTRIBUTIONS BY AGE,
INCOME, AND SIZE OF DISTRIBUTION

	Number of Tax Returns (Thousands)	Size of Lump-Sum Distribution					
		Less Than \$1,000	\$1,000 to \$5,000	\$5,000 to \$20,000	\$20,000 to \$100,000	\$100,000 or Larger	All Lump Sums
By age of primary taxpayer							
Less than 30	31,541	1.8%	1.2%	3.0%	0.0%	0.0%	3.3%
30 to 34	12,706	3.4	2.9	1.7	0.6	0.0	8.6
35 to 39	12,843	2.7	3.0	2.0	0.7	0.0	8.4
40 to 44	11,532	2.9	3.0	1.7	0.7	0.1	8.5
45 to 49	10,162	3.3	3.3	2.6	1.0	0.3	10.4
50 to 54	7,940	3.1	3.1	2.5	1.4	0.4	10.6
55 to 59	6,339	2.7	4.1	2.8	2.0	0.6	12.2
60 to 64	5,198	3.4	5.1	3.7	3.2	0.8	16.1
65 to 69	4,669	5.1	6.1	4.2	1.8	0.8	18.0
70 and older	9,636	4.6	3.5	2.9	0.9	0.3	12.1
All ages ^a	118,220	2.9	2.8	1.8	0.8	0.2	8.5
By AGI							
Less than \$10,000 ^b	28,733	1.4	0.9	0.7	0.1	0.0	3.0
\$10,000 to \$19,999	24,953	2.8	2.1	1.4	0.2	0.1	6.6
\$20,000 to \$29,999	17,812	3.5	3.5	1.7	0.5	0.1	9.3
\$30,000 to \$39,999	12,384	3.8	3.8	2.0	0.9	0.1	10.5
\$40,000 to \$49,999	9,097	3.8	4.2	2.4	1.0	0.2	11.6
\$50,000 to \$74,999	13,678	3.6	4.6	3.1	1.8	0.3	13.5
\$75,000 to \$99,999	5,375	3.2	4.8	3.9	3.0	0.6	15.5
\$100,000 or more	5,348	2.7	3.1	3.3	3.5	1.6	14.2
All incomes	118,220	2.9	2.8	1.8	0.8	0.2	8.5

Source: Authors' tabulations of 1995 matched SOI/IRMF data set.

^aIncludes taxpayers for whom age is missing, not shown separately.

^bExcludes taxpayers with negative AGI, included in total.

determinant of rollover behavior, the set of income dummies is highly significant and suggests a strong relationship between rollovers and income after controlling for distribution size, while the age dummies are generally weaker and have conflicting signs in the narrow and broad measures.

Figures 2 and 3 show predicted differences in rollover behavior for four composite age-income groups, with respect to the size of the distribution, using the estimated logit parameters. The four groups are younger/lower-income, younger/higher-income, older/lower-income, and older/higher-income. The younger group includes families where the primary taxpayer is younger than 55, and the older groups include those 55 to 69. The income cutoff for AGI is above or below \$30,000,

which is the top of the range that includes the median-income family.

Both Figures 2 and 3 confirm that size of the lump-sum distribution is the most important predictor of a rollover—the probability of rolling over a small distribution (\$1,000) varies between 15 and 35 percent for the four groups, and the probability of rolling over a very large distribution (\$100,000) is 80 percent or more for all four groups. There is also a noticeable and consistent difference between the income groups in both figures: higher-income families are much more likely to roll over a distribution of a given size than lower-income families. However, after controlling for size of distribution and income, age has little explanatory power. That is, lower-income young families behave much like lower-income older families, and

Disposition of Lump-Sum Pension Distributions

TABLE 6
PERCENT OF NARROWLY DEFINED LUMP-SUM DISTRIBUTION DOLLARS ROLLED OVER BY AGE,
INCOME, AND SIZE OF DISTRIBUTION

	Size of Lump-Sum Distribution					
	Less Than \$1,000	\$1,000 to \$5,000	\$5,000 to \$20,000	\$20,000 to \$100,000	\$100,000 or Larger	All Lump Sums
By age of primary taxpayer						
Less than 30	20.8%	24.6%	52.0%	60.0%	100.0%	42.4%
30 to 34	19.4	28.7	46.8	72.9	100.0	56.1
35 to 39	17.0	34.0	50.6	69.4	99.1	65.2
40 to 44	21.7	44.5	44.9	73.1	91.9	68.8
45 to 49	11.5	37.8	46.9	70.4	98.6	78.3
50 to 54	13.5	41.2	62.1	80.5	95.2	85.3
55 to 59	18.0	43.5	47.1	89.3	84.1	82.2
60 to 64	14.8	40.0	37.5	86.6	86.6	83.0
65 to 69	8.4	22.6	35.9	83.8	97.1	88.9
70 and older	5.1	4.6	15.9	50.1	85.4	65.5
All ages ^a	17.0	32.1	45.3	76.4	90.7	76.7
By AGI						
Less than \$10,000 ^b	2.3	20.4	17.9	37.2	100.0	47.7
\$10,000 to \$19,999	10.8	19.6	31.6	82.4	47.0	53.2
\$20,000 to \$29,999	19.5	25.5	41.2	89.2	87.7	69.4
\$30,000 to \$39,999	8.9	29.8	40.3	87.1	99.1	72.0
\$40,000 to \$49,999	35.2	32.5	38.7	78.5	99.1	71.3
\$50,000 to \$74,999	27.1	40.3	54.1	77.1	99.5	82.2
\$75,000 to \$99,999	17.2	51.2	50.6	66.4	80.8	71.5
\$100,000 or more	31.8	49.3	63.1	73.9	93.8	87.2
All incomes	17.0	32.1	45.3	76.4	90.7	76.7

Source: Authors' tabulations of 1995 matched SOI/IRMF data set.

^aIncludes taxpayers for whom age is missing, not shown separately.

^bExcludes taxpayers with negative AGI, included in total.

higher-income younger families behave much like higher-income older families.

LUMP-SUM DISTRIBUTIONS AND NONROLLOVERS RELATIVE TO FAMILY RESOURCES

Lower-income families are less likely to roll over any given size lump-sum distribution, which suggests there may be cause for concern about leakage from pension saving for those groups even though overall leakage is fairly small. But it is also true that lower-income families are less likely to get rollovers in the first place, so that the total leakage (nonrolled) distributions for given groups may still not be significant relative to some base measure of resources. In this section, we look at total leakage across age-income groups and find less to

be concerned about than one might imagine given the low rollover propensities for some groups reported in the last section.

Optimally, we would like to analyze leakage due to lump sums by measuring nonrolled distributions relative to total retirement resources across groups. Unfortunately, we do not have any comprehensive measure of retirement resources across groups; the Survey of Consumer Finances has data on defined-contribution balances across age and income groups, but we are still missing data on the present value of expected defined-benefit pension income and Social Security benefits. The lack of data on Social Security wealth is a particular problem because the retirement income of lower-income families is dominated by Social Security. Lower-income families receive a higher level of income

TABLE 7
PERCENT OF BROADLY DEFINED LUMP-SUM DISTRIBUTION DOLLARS ROLLED OVER BY AGE,
INCOME, AND SIZE OF DISTRIBUTION

	Size of Lump-Sum Distribution					
	Less Than \$1,000	\$1,000 to \$5,000	\$5,000 to \$20,000	\$20,000 to \$100,000	\$100,000 or Larger	All Lump Sums
By age of primary taxpayer						
Less than 30	18.4%	26.8%	50.1%	47.0%	100.0%	39.4%
30 to 34	16.8	26.4	47.6	72.8	89.7	55.5
35 to 39	21.6	28.9	40.0	67.5	98.7	58.6
40 to 44	14.2	33.6	32.5	76.1	92.9	66.0
45 to 49	9.8	29.6	28.4	66.4	95.7	68.7
50 to 54	7.7	26.8	37.4	73.1	93.9	77.5
55 to 59	8.0	25.2	25.7	76.8	86.7	75.5
60 to 64	7.9	24.1	35.6	75.5	86.6	76.2
65 to 69	5.0	13.0	32.3	75.2	96.7	80.2
70 and older	2.0	7.8	22.9	46.5	79.2	53.9
All ages ^a	12.2	24.3	34.0	70.4	90.1	69.7
By AGI						
Less than \$10,000 ^b	1.7	11.3	10.2	46.2	56.4	26.4
\$10,000 to \$19,999	8.0	16.7	22.2	76.2	51.7	42.6
\$20,000 to \$29,999	13.3	21.2	32.9	75.3	88.7	61.4
\$30,000 to \$39,999	10.3	23.3	40.8	70.1	97.6	62.0
\$40,000 to \$49,999	20.0	26.3	33.4	66.5	96.2	67.8
\$50,000 to \$74,999	17.8	28.9	42.3	72.8	99.2	74.5
\$75,000 to \$99,999	9.9	38.8	36.3	67.8	84.2	70.2
\$100,000 or more	24.0	31.9	53.6	69.5	91.9	83.9
All incomes	12.2	24.3	34.0	70.4	90.1	69.7

Source: Authors' tabulations of 1995 matched SOI/IRMF data set.

^aIncludes taxpayers for whom age is missing, not shown separately.

^bExcludes taxpayers with negative AGI, included in total.

replacement from Social Security, and thus, their Social Security wealth-to-income ratio is higher.

Annual income is a decent alternative to retirement wealth for analyzing how nonrolled lump sums vary in importance across groups. If retirement wealth is proportional to income across income groups (controlling for age), looking at nonrolled lump sums relative to income gives the same relative answer, but the overall ratio differs because the ratio of retirement wealth to income is not one.¹⁹ Looking at nonrolled distributions relative to income across age-income groups also has a di-

rect interpretation as a negative-offset to the underlying saving rate across age-income groups.

The ratio of nonrolled lump sums to AGI across age-income groups is shown in Tables 9 (narrowly defined) and 10 (broadly defined). In both tables, there is a clear jump in nonrolled lump sums relative to income at age 55, as expected. Nonrolled narrow lump sums account for only 0.3 to 0.4 percent of income for the younger age groups, but that approximately doubles for families over age 55 who do not face the early-withdrawal penalty. Broadly defined nonrolled lump

¹⁹ Theory predicts that total retirement wealth should be a constant ratio to income across the lifetime income distribution controlling for age, but the fact that annual income diverges from lifetime income because of transitory fluctuations suggests that the ratio of retirement wealth to annual income will decline across the annual income distribution.

Disposition of Lump-Sum Pension Distributions

TABLE 8
LOGIT REGRESSIONS OF ROLLOVER FRACTIONS ON
DISTRIBUTION SIZE, AGE DUMMIES, AND INCOME DUMMIES

Independent Variable	Narrow Lump-Sum Measure		Broad Lump-Sum Measure	
	Coefficient	Z Value	Coefficient	Z Value
Size of lump-sum distribution	0.0360	18.1980	0.0444	26.1610
Age dummies				
30 to 34	0.1467	1.4530	0.1360	1.4580
35 to 39	0.2112	1.9990	-0.0178	-0.1870
40 to 44	0.2929	2.7190	-0.0874	-0.8940
45 to 49	0.1088	0.9730	-0.2345	-2.3960
50 to 54	0.4123	3.4110	-0.1662	-1.6090
55 to 59	0.4479	3.4710	-0.3098	-2.8810
60 to 64	0.3401	2.5870	-0.0914	-0.8830
65 to 69	-0.0098	-0.0660	-0.3128	-2.8860
70 and older	-1.2655	-7.3240	-1.0427	-9.1050
AGI dummies				
\$10,000 to \$19,999	0.8861	5.0360	0.7021	5.0610
\$20,000 to \$29,999	1.2695	7.4540	1.0342	7.6740
\$30,000 to \$39,999	1.3407	7.7620	1.1751	8.6130
\$40,000 to \$49,999	1.6568	9.4560	1.3649	9.8530
\$50,000 to \$74,999	1.8174	10.8230	1.5096	11.4480
\$75,000 to \$99,999	1.8893	10.4970	1.5922	11.2270
\$100,000 or more	2.1443	11.4680	1.7832	12.2790
Constant	-2.6289	-15.6350	-2.5023	-18.3740
Pseudo R squared	0.1700	—	0.1673	—
Sample size	7,391	—	12,594	—

Source: Authors' estimates using 1995 matched SOI/IRMF data set.

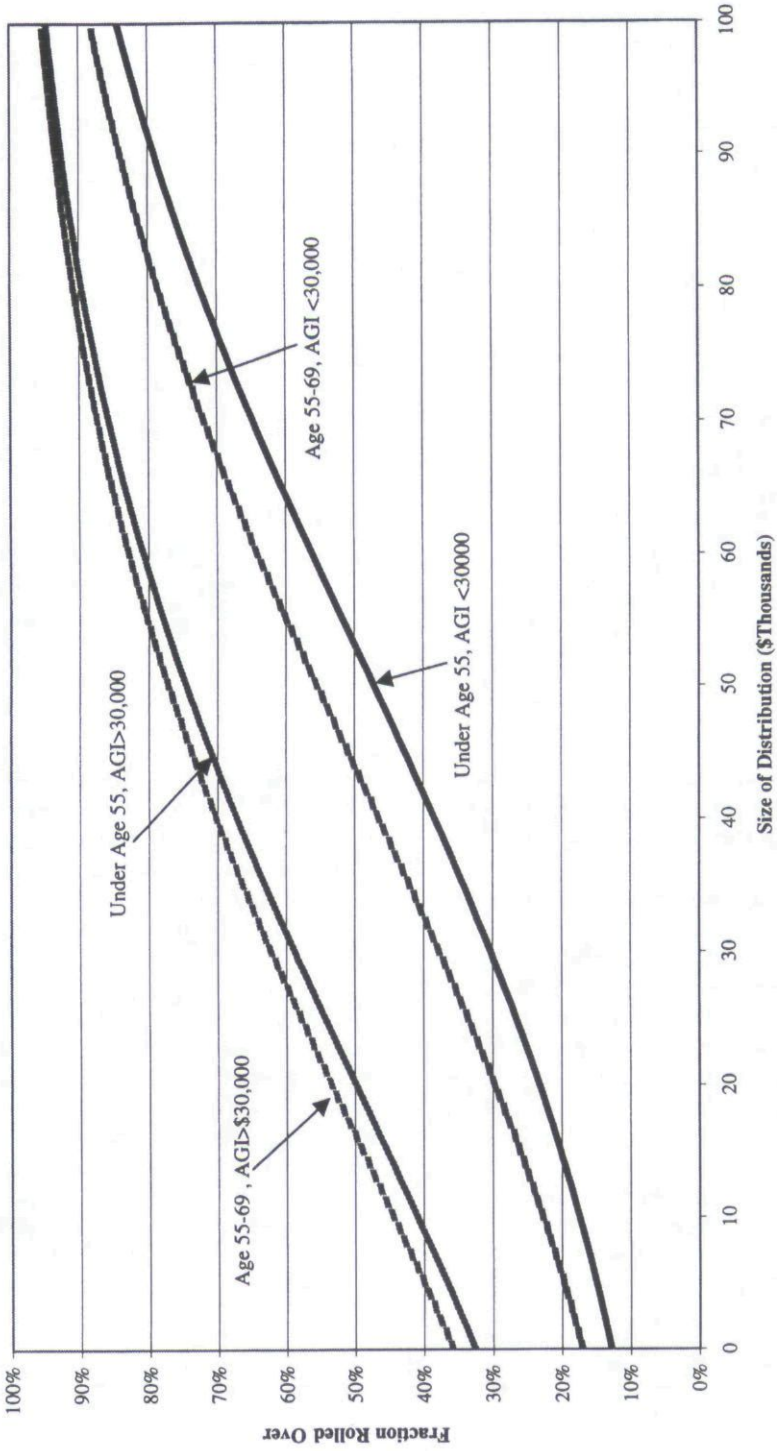
sums show the same pattern, but the non-rolled amounts are 0.6 to 0.8 percent of income for the younger groups.

The fraction of income accounted for by nonrolled lump sums is remarkably constant across most of the income distribution, both with and without controlling for age. Overall, narrow nonrolled lump sums account for about 0.5 percent of income, and values within a few tenths of the average dominate most of the age-income distribution. Broadly defined nonrollovers are 0.9 percent of income on average, but again, most of the cells in Table 10 are close to that average. The two lowest income groups show a higher relative fraction of nonrolled lump sums, and the highest group shows a lower relative fraction.

The tails of the nonrollover-to-income ratios across the income dimension are partly due to the differences in rollover behavior identified in the last section, but are also biased because annual rather than lifetime income is used as the classifier. Some of the families in the lowest income groups have experienced negative transitory shocks, and thus, their nonrolled lump sums will drive up the average for that annual income group. But even with this bias, the ratio of nonrollovers to income for lower-income families under age 55 is still generally low relative to annual income.²⁰ The opposite story holds at the top of the distribution; some of the families there have experienced positive transitory

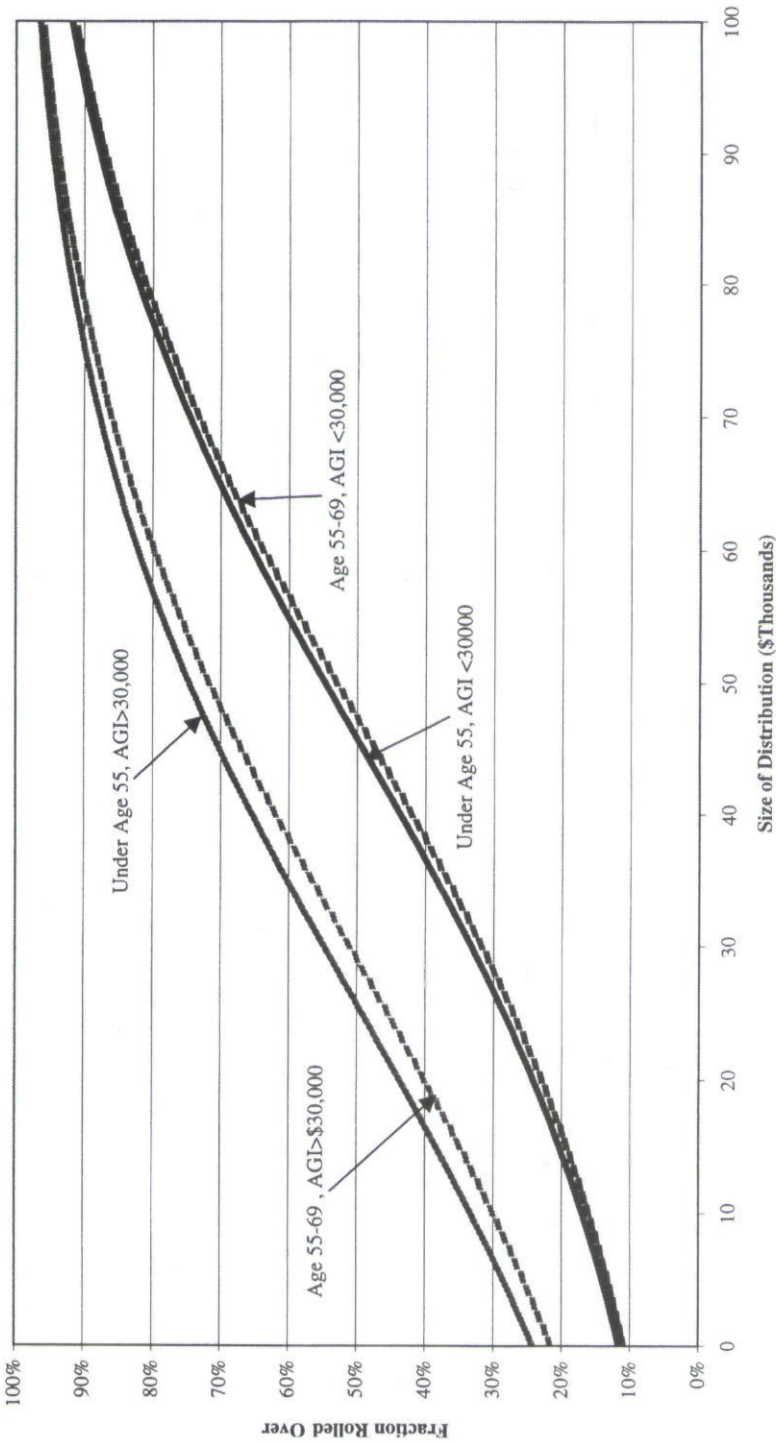
²⁰ It is also the case that younger, lower-income families may be more likely to participate in a pension plan if they know they will have access to lump-sum distributions when they separate. Those lump sums could act as a form of insurance against job loss. Thus, even these ratios may overstate the leakage caused by access to lump-sum distributions.

Figure 2. Predicted Fraction of Narrowly Defined Lump Sums Rolled Over by Size of Distribution for Four Age/Income Groups



Source: Values predicted by coefficients in Table 8. The Age/Income vector used to predict each data point reflects the weights of Age and Income within each of the four Age/Income groups.

Figure 3. Predicted Fraction of Broadly Defined Lump Sums Rolled Over by Size of Distribution for Four Age/Income Groups



Source: Values predicted by coefficients in Table 8. The Age/Income vector used to predict each data point reflects the weights of Age and Income within each of the four Age/Income groups.

TABLE 9
NONROLLED NARROWLY DEFINED LUMP-SUM DISTRIBUTIONS AS A SHARE OF AGI

Age Group	AGI							
	Less Than ^b \$10,000	\$10,000 to \$19,999	\$20,000 to \$29,999	\$30,000 to \$39,999	\$40,000 to \$49,999	\$50,000 to \$74,999	\$75,000 to \$100,000	\$100,000 or More
Less than 30	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%	0.5%	0.0%
30 to 34	1.0	0.8	0.5	0.4	0.4	0.5	0.7	0.3
35 to 39	1.1	0.3	0.6	0.6	0.4	0.3	0.6	0.1
40 to 44	1.4	0.4	0.4	0.6	0.3	0.2	0.6	0.2
45 to 49	0.5	0.7	0.6	0.3	0.2	0.4	0.5	0.3
50 to 54	0.6	0.2	0.5	0.1	0.5	0.3	0.4	0.3
55 to 59	1.5	0.5	0.2	0.3	0.4	0.4	3.4	0.2
60 to 64	0.8	7.8	2.2	0.4	0.6	0.6	0.6	0.3
65 to 69	0.2	1.4	0.7	0.4	0.5	0.8	0.1	0.5
70 and older	0.6	1.0	0.5	1.0	1.1	0.6	1.3	0.5
All ages ^a	0.6	0.8	0.5	0.4	0.4	0.4	0.8	0.3
								0.5

Source: Authors' tabulations of 1995 matched SOI/IRMF data set.

^aIncludes taxpayers for whom age is missing, not shown separately.

^bExcludes taxpayers with negative AGI; are included in total.

TABLE 10
NONROLLED BROADLY DEFINED LUMP-SUM DISTRIBUTIONS AS A SHARE OF AGI

Age Group	AGI								All Incomes
	Less Than ^b \$10,000	\$10,000 to \$19,999	\$20,000 to \$29,999	\$30,000 to \$39,999	\$40,000 to \$49,999	\$50,000 to \$74,999	\$75,000 to \$100,000	\$100,000 or More	
Less than 30	0.2%	0.4%	0.3%	0.4%	0.4%	0.4%	0.5%	0.0%	0.3%
30 to 34	1.0	0.8	0.6	0.5	0.6	0.7	0.7	0.4	0.6
35 to 39	2.5	0.6	0.8	1.1	0.6	0.5	0.9	0.2	0.7
40 to 44	1.9	0.8	0.7	0.9	0.6	0.4	0.8	0.4	0.6
45 to 49	1.6	2.0	1.3	0.8	0.8	0.7	0.9	0.5	0.8
50 to 54	4.1	1.8	0.9	0.5	1.1	0.9	0.9	0.6	0.8
55 to 59	5.9	1.6	1.3	1.3	1.7	1.0	4.2	0.6	1.5
60 to 64	4.5	9.9	4.3	1.2	2.1	2.4	1.0	0.6	2.2
65 to 69	7.0	5.2	2.6	1.4	1.4	1.8	0.3	0.8	1.9
70 and older	8.6	2.6	1.5	2.2	2.1	1.1	2.1	0.9	1.9
All ages ^a	2.2	1.6	1.0	0.9	0.9	0.8	1.2	0.5	0.9

Source: Authors' tabulations of 1995 matched SOI/IRMF data set.

^aIncludes taxpayers for whom age is missing, not shown separately.

^bExcludes taxpayers with negative AGI; are included in total.

shocks, so their nonrolled lump sums appear modest.

CONCLUSIONS

The U.S. tax code allows a great deal of freedom when it comes to taxpayer disposition of pension balances that are paid in the form of lump-sum distributions. But the code offsets that freedom with a stiff 10 percent penalty on pension withdrawals prior to age 55 that are not rolled over to another qualified account. The penalty is designed to preserve the retirement orientation of pension saving; if the penalty were not in place, the current system would lead to consumption-tax treatment of any saving done through pensions without regard to the underlying saving goal.

In this paper, we use tax data to show that, although the flow of lump-sum distributions in any given year is substantial, most of the flow is rolled over to other qualified accounts, so the leakage from the pension system is not significant in aggregate or even within particular age-income groups. It is not clear whether taxpayers are rolling over their lump sums to avoid the 10 percent penalty or to continue accumulating wealth before tax after they separate. There is some support for the idea that taxpayers are not just avoiding the penalty, because rollover rates are just as high (after controlling for income) for age groups who do not face the penalty.

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The views expressed here are those of the authors and should not be interpreted as those of the Congressional Budget Office.

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Appendix

Processing Information Returns Micro File (IRMF) Records

The analysis in this paper is based on a link between the SOI Individual Tax Return data file and the Information Returns Micro File (IRMF) for 1995. The SOI is a sample of 116,964 individual tax returns (Form 1040 and related) representing the filing population of 118.1 million returns for 1995. The IRMF is a data file with various information returns created for use with the SOI and other tax-return samples. Taxpayer identifiers are used to link the appropriate information returns for both primary and secondary filers within the SOI sample. Our matching algorithm assigned one or more IRA (Form 5498) records to nearly 60,000 SOI tax paying units representing about 27 million returns. We also assigned one or more pension or IRA distribution returns (Form 1099R) to about 33,000 taxpaying units representing about 25 million returns. The differentials in the fractions of the sample and fraction of the population assigned information returns arise be-

cause population weights and incidence of pension and IRA activity are inversely correlated, because population weights and pension activity are both correlated with income, but in opposite directions.

After matching the information returns to the sample of Form 1040s, there are two more processing steps necessary before the data set is final. First, we have to resolve cases where the information returns are amended. For the matched Form 5498s, there are 545 cases where amended returns are filed. For the Form 1099Rs, there are 660 cases of amended returns. For both Form 5498 and Form 1099R amended returns, we generally found a clear relationship between one or more original and one or more amended returns and were able to resolve the situation directly. The resolution generally involved zeroing out one or more returns, which lowered aggregate pension/IRA flows on Form 1099R and aggregate IRA balances on Form 5498 slightly.

The second processing step is to reassign some of the reported pension distributions as IRAs and vice versa. This occurred in cases where the 1099R issuer and taxpayer disagreed about whether a distribution was from a pension or an IRA/SEP. In cases where Form 1099R and Form 1040 disagreed about the nature of the distribution, we chose to use the taxpayer (Form 1040) value, because we have no basis for choosing between the taxpayer or Form 1099R issuer, and we are, in any case, focused on how the taxpayer viewed the distribution. This shifted a net of \$10 billion (out of a total of \$355 billion) in gross distributions from pensions to IRAs on the 1099R records.

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