Congressional Budget Office

Background Paper

Utilization of Tax Incentives for Retirement Saving: An Update

February 2006

CBO

Utilization of Tax Incentives for Retirement Saving: An Update

February 2006

The Congress of the United States ■ Congressional Budget Office

Preface

This Congressional Budget Office background paper updates CBO's *Utilization of Tax Incentives for Retirement Saving* (August 2003). That paper examined participation rates and contributions to employment-based retirement plans, individual retirement accounts (IRAs), and Keogh plans in 1997. This paper presents comparable figures for 2000 and shows how patterns of utilization changed between the two years. The paper also presents data that were not available in 1997. Roth IRAs, for example, became available in 1998. In addition, information on contributions to simplified employee pensions (SEPs) and savings incentive match plans for employees (SIMPLEs) became available in 2000.

Overall, the paper finds that participation in tax-favored retirement plans declined slightly over the study period. Increases in IRA and 401(k) participation were more than offset by declines in participation in noncontributory plans, such as traditional defined-benefit plans. In keeping with CBO's mandate to provide objective, impartial analysis, the report makes no recommendations.

Paul Burnham of CBO's Tax Analysis Division wrote the paper under the direction of Roberton Williams and Thomas Woodward. Ed Harris provided useful comments.

Janey Cohen edited the paper, and Christine Bogusz proofread it. Denise Jordan-Williams assisted in preparing the initial text, and Maureen Costantino prepared the paper for publication. Lenny Skutnik produced the printed copies.

Donald B. Marron
Acting Director

February 2006

Contents

Contents (Continued)

Tables

Box

Utilization of Tax Incentives for Retirement Saving: An Update

Summary and Introduction

This paper updates the Congressional Budget Office's (CBO's) *Utilization of Tax Incentives for Retirement Saving* (August 2003). That paper examined participation rates and contributions to employment-based retirement plans, individual retirement accounts (IRAs), and Keogh plans in 1997. This paper presents comparable figures for 2000 and shows how patterns of utilization changed between the two years.

The paper also presents data that were not available in 1997. Roth IRAs, for example, became available in 1998 and now provide an alternative to traditional IRAs that most taxpayers can choose. Roth IRAs differ from traditional IRAs in that contributions are not deductible, but withdrawals are exempt from tax. In addition, information on contributions to simplified employee pensions (SEPs) and savings incentive match plans for employees (SIMPLEs) is now available for 2000. The 2000 data show, by age and income group, participation rates and contribution levels for all of those types of plans for all workers filing tax returns.

CBO's key findings are as follows:

- Overall participation in tax-favored retirement plans declined by 1 percentage point to 50 percent between 1997 and 2000. The decline was similar across all age groups but did not occur among higher-income workers or two-earner married couples.

- Participation in employment-based plans declined by 2 percentage points to 45 percent between 1997 and 2000. That figure, however, masks differences between 401(k)-type plans and noncontributory plans.[1] Participation in 401(k)-type plans increased by 1 percentage point to 28 percent, whereas participation only in noncontributory plans declined by 3 percentage points to 17 percent.

- Participation in IRAs increased by 2 percentage points to 8 percent—approximately evenly split between Roth IRAs and traditional IRAs—between 1997 and 2000. The increase was greatest among the 45-to-59 age group at 3 percentage points. Among income groups, the greatest increases occurred for those with annual adjusted gross income (AGI) between $40,000 and $160,000.

- The average 401(k) contribution in 2000 was $3,039 (in 1997 dollars), nearly a 10 percent increase over the average in 1997. The percentage of participants contributing the maximum amount also increased by 1 percentage point to 7 percent.

- The average real IRA contribution declined between 1997 and 2000 by $81 to $1,512. That represents 81 percent of the maximum allowable contribution, slightly higher than the 1997 average of 80 percent of the maximum allowable contribution. Furthermore, the percentage contributing the maximum increased by 7 percentage points to 69 percent.

Changes Between 1997 and 2000

Tax and associated information returns filed with the Internal Revenue Service (IRS) provide data on who was covered by an employment-based retirement plan, who contributed to IRAs and 401(k)-type plans, and how much they contributed. Specifically, IRA contributions (whether or not they are deductible) are reported on Form 5498, and contributions to 401(k)-type plans are reported on Form W-2. The latter also identifies workers

1. 401(k)-type plans include 401(k)s, 403(b)s, 457s, and the federal Thrift Savings Plan. Noncontributory plans include all defined-benefit plans and defined-contribution plans that are entirely employer-funded. Workers participating in both a 401(k)-type plan and a noncontributory plan are counted only in the former category.

who are covered by an employment-based plan but do not contribute toward it. Keogh contributions are reported on Form 1040.

Participation rates in employment-based plans, IRAs, and Keoghs; average contributions to each; and percentages of participants contributing the maximum amount allowed by law were tabulated from samples of returns for both 1997 and 2000 that were prepared by the IRS.[2] All dollar amounts are presented in 1997 dollars.

Participation Rates

Participation data were available for employment-based plans, individual retirement accounts, and Keogh accounts. Furthermore, information returns identified employment-based plan participants who contributed to a 401(k)-type plan. Rates are expressed as a percentage of all workers filing tax returns.

Overall Participation. Overall participation in tax-favored retirement plans declined by 1 percentage point to 50 percent between 1997 and 2000 (see Table 1). The decline was similar across all age groups but not among all income groups or groupings by marital status and earner role.

Workers with annual adjusted gross income over $120,000 participated at a higher rate in 2000 than in 1997, reaching 80 percent participation for those earning between $120,000 and $160,000. In contrast, participation by those with income between $20,000 and $40,000 dropped by 4 percentage points to 52 percent. Participation in the lowest (and largest) income group dropped 2 percentage points to 20 percent. Among workers with income between $40,000 and $120,000, participation dropped by approximately 2 percentage points, but the levels remained well above the average.

Participation also increased among two-earner married couples, with the greatest increase (5 percentage points to 59 percent) occurring among secondary earners and the highest level (75 percent, up 3 percentage points) occurring among primary earners. Participation by one-earner married couples declined 7 percentage points to 46 percent. Participation among unmarried workers (roughly half of all workers) also declined slightly.

Employment-Based Plans. Participation in employment-based plans declined by 2 percentage points to 45 percent between 1997 and 2000. The patterns by age group, income group, and marital status/earner role mirror those described above for overall participation.

The patterns differ, however, when broken down between workers participating in a 401(k)-type plan and those participating only in a noncontributory plan. Participation in 401(k)-type plans increased by 1 percentage point to 28 percent, whereas participation only in noncontributory plans declined by 3 percentage points to 17 percent (see Table 2). Those differences largely reflect a continuation of the long-term trend of employers shifting from traditional pensions toward 401(k)-type plans.

The increase in participation in 401(k)-type plans was limited to those between ages 30 and 59; the youngest and oldest age groups experienced no change. Similarly, the increase was most pronounced among those with income in excess of $120,000. Among the lower-income groups, participation generally remained steady. Finally, one-earner married couples reduced their participation in 401(k)-type plans, whereas two-earner married couples increased their participation by more than the average.

The decline in participation in noncontributory plans was similar for all age groups. By income group, the decline was sharpest among those with income below $80,000, but no income class experienced an increase. By marital status/earner role, one-earner married couples experienced the largest decline in participation, whereas secondary earners in two-earner married couples experienced the smallest decline.

IRAs and Keoghs. Participation in IRAs increased by 2 percentage points to 8 percent between 1997 and 2000

2. Because the tabulations are from a sample, some sampling error is inevitable. The IRS publishes coefficients of variation (CVs) for most of the fields that can be extracted from Form 1040. For IRA and Keogh contributions in 2000, the CV for those fields (both the number of returns and the amounts) was approximately 2 percent (see Internal Revenue Service, *Statistics of Income–2000: Individual Income Tax Returns* [March 2003], pp. 56-57). That means that there is only one chance in 20 that sampling error would cause the tabulated value to be more than 4 percent higher or 4 percent lower than the true value. For a tabulated dollar amount of $1,000, that would translate into a range of $960 to $1,040. Corresponding CVs in 1997 were slightly higher but still less than 3 percent (see Internal Revenue Service, *Statistics of Income–1997: Individual Income Tax Returns* [December 1999], pp. 58-59). CVs for contributions to 401(k)-type plans are not published but would probably be lower than those for IRAs and Keoghs. Those for contributions to SEPs and SIMPLEs would probably be higher.

Table 1.

Workers' Participation in Tax-Favored Retirement Plans, 1997 and 2000

Category	1997 Number of Workers (Thousands)	1997 Percentage Actively Participating in Any Plan	2000 Number of Workers (Thousands)	2000 Percentage Actively Participating in Any Plan
		By Age Cohort		
Under 30	40,765	35	40,068	33
30 to 44	50,205	58	49,411	56
45 to 59	31,822	64	35,316	63
60 and Over	10,605	42	11,388	40
All Cohorts	**133,397**	**51**	**136,183**	**50**
		By Adjusted Gross Income (1997 dollars)		
Under $20,000	45,790	22	44,755	20
$20,000 to $40,000	32,867	56	32,706	52
$40,000 to $80,000	37,145	70	37,350	67
$80,000 to $120,000	10,812	79	12,563	78
$120,000 to $160,000	3,097	78	3,954	80
$160,000 and Over	3,686	76	4,854	77
All Income Groups	**133,397**	**51**	**136,183**	**50**
		By Marital Status/Earner Role		
Single Earners	64,388	41	67,635	39
Married Earners				
Sole	18,955	53	19,756	46
Primary	25,028	72	24,396	75
Secondary	25,028	54	24,396	59
All Earners	**133,397**	**51**	**136,183**	**50**
Nonearning Spouse	18,955	6	19,756	7

Source: Congressional Budget Office tabulations of 1997 and 2000 individual income tax returns and tax information returns.

Note: Participation consists of contributing to an individual retirement account, Keogh, or 401(k)-type plan or being enrolled in a noncontributory plan during the given year.

(see Table 3). That increase largely reflects the introduction of Roth IRAs beginning in 1998. As with employment-based plans, however, the changes were not uniform among age groups, income groups, or marital status/earner role.

The increase was greatest among the 45-to-59 age group at 3 percentage points, with smaller increases in the younger age groups and no change among those age 60 or older. Among income groups, the greatest increases occurred for those with income between $40,000 and $160,000, with rates reaching a high of 20 percent for the $120,000-$160,000 income group. There was little change in participation among the lower-income groups. Participation declined in the highest income group. By marital status/earner role, participation increased the most among secondary earners in two-earner married couples and least among one-earner married couples.

Keogh participation rates are generally too low to reveal patterns in participation by age group, marital status, or earner role. However, among the higher-income groups,

Table 2.

Workers' Participation in Employment-Based Retirement Plans, 1997 and 2000

(Percentage of all workers)

Category	401(k)-Type Plans 1997	401(k)-Type Plans 2000	Noncontributory Plans Only 1997	Noncontributory Plans Only 2000
		By Age Cohort		
Under 30	15	15	18	15
30 to 44	32	34	22	18
45 to 59	36	37	22	19
60 and Over	18	18	16	14
All Cohorts	**27**	**28**	**20**	**17**
		By Adjusted Gross Income (1997 dollars)		
Under $20,000	6	6	14	12
$20,000 to $40,000	27	27	25	21
$40,000 to $80,000	40	41	25	20
$80,000 to $120,000	53	52	19	17
$120,000 to $160,000	52	55	15	15
$160,000 and Over	45	49	14	14
All Income Groups	**27**	**28**	**20**	**17**
		By Marital Status/Earner Role		
Single Earners	19	20	19	16
Married Earners				
Sole	27	26	20	14
Primary	44	48	23	20
Secondary	29	32	20	19
All Earners	**27**	**28**	**20**	**17**
Nonearning Spouse	n.a.	n.a.	n.a.	n.a.

Source: Congressional Budget Office tabulations of 1997 and 2000 individual income tax returns and tax information returns.

Note: Participation consists of making a contribution to a 401(k)-type plan or being enrolled in a noncontributory plan during the given year.

n.a. = not applicable.

for whom participation exceeded 3 percent in 1997, the participation rate declined or stayed the same between 1997 and 2000 (see Table 3).

Contributions

Data on employee contribution levels were available for 401(k)-type plans, IRAs, and Keoghs. Results are presented in terms of average contributions and the percentage of participants making the maximum contribution allowed by statute. The available tax forms did not report employer contributions to 401(k)-type plans.

401(k)-Type Plans. The statutory limit on annual 401(k) contributions by employees increased with inflation between 1997 and 2000 to $10,500, but average contributions increased at a faster rate, possibly reflecting real wage growth.[3] The average 401(k) contribution in 2000 was $3,039, nearly a 10 percent increase over the average in 1997 (see Table 4). The percentage of participants contributing the maximum amount also increased by 1 percentage point to 7 percent.

3. In addition to the absolute dollar limit, contributions to 401(k)-type plans in 1997 and 2000 were also limited to 25 percent of compensation. That limit was rarely binding.

Table 3.

Workers' Participation in Individual Retirement Accounts and Keoghs, 1997 and 2000

(Percentage of all workers)

	IRAs		Keogh Plans	
Category	1997	2000	1997	2000
		By Age Cohort		
Under 30	3	4	<1	<1
30 to 44	6	8	1	1
45 to 59	9	12	2	2
60 and Over	10	10	1	2
All Cohorts	**6**	**8**	**1**	**1**
		By Adjusted Gross Income (1997 dollars)		
Under $20,000	2	3	<1	<1
$20,000 to $40,000	7	7	<1	<1
$40,000 to $80,000	7	10	1	1
$80,000 to $120,000	9	16	3	2
$120,000 to $160,000	14	20	5	4
$160,000 and Over	17	14	9	9
All Income Groups	**6**	**8**	**1**	**1**
		By Marital Status/Earner Role		
Single Earners	4	6	<1	<1
Married Earners				
Sole	8	9	2	1
Primary	8	11	2	2
Secondary	7	11	1	1
All Earners	**6**	**8**	**1**	**1**
Nonearning Spouse	6	7	n.a.	n.a.

Source: Congressional Budget Office tabulations of 1997 and 2000 individual income tax returns and tax information returns.

Note: Participation consists of making a contribution to an IRA or Keogh during the given year.

n.a. = not applicable.

Average contributions were highest in the 45-to-59 age group, but that group had the slowest growth in average contributions—less than 4 percent. In contrast, the under-30 group had the lowest average contributions but the fastest growth—more than 17 percent. The oldest group—60 and above—had slightly smaller average contributions than the 45-to-59 group but slightly faster growth. The 30-to-44 group fell in between the under-30 group and the 45-to-59 group in both average contributions and growth in average contributions.

Average contributions represented roughly similar shares of income, ranging from about 5 percent of adjusted gross income in the lower-income groups to around 4 percent in the higher-income groups. Furthermore, growth rates were highest for the lowest income group—over 17 percent—and negative for the highest income group. For every group in between, the growth rate was less than 10 percent. The decline in the growth rate of average contributions as income increases may reflect the number of participants in each income class who contributed the maximum in 1997 and could not contribute

Table 4.

Workers' Contributions to 401(k)-Type Plans, 1997 and 2000

Category	1997			2000		
	Number of Participants (Thousands)	Average Contribution (1997 dollars)	Percentage of Participants Contributing the Maximum	Number of Participants (Thousands)	Average Contribution (1997 dollars)	Percentage of Participants Contributing the Maximum
By Age Cohort						
Under 30	6,128	1,592	2	6,102	1,873	2
30 to 44	16,288	2,691	6	16,868	2,993	7
45 to 59	11,360	3,466	9	13,164	3,590	10
60 and Over	1,889	3,213	10	2,092	3,338	10
All Cohorts	**35,666**	**2,772**	**6**	**38,226**	**3,039**	**7**
By Adjusted Gross Income (1997 dollars)						
Under $20,000	2,695	630	1	2,874	740	1
$20,000 to $40,000	8,914	1,504	1	8,881	1,595	2
$40,000 to $80,000	15,020	2,621	4	15,319	2,777	4
$80,000 to $120,000	5,739	4,148	10	6,589	4,303	11
$120,000 to $160,000	1,624	5,451	21	2,190	5,689	20
$160,000 and Over	1,673	7,015	40	2,373	6,960	38
All Income Groups	**35,666**	**2,772**	**6**	**38,226**	**3,039**	**7**
By Marital Status/Earner Role						
Single Earners	12,404	2,190	3	13,591	2,448	5
Married Earners						
Sole	5,147	3,580	12	5,055	3,881	12
Primary	10,973	3,398	8	11,801	3,712	9
Secondary	7,141	2,239	5	7,779	2,501	6
All Earners	**35,666**	**2,772**	**6**	**38,226**	**3,039**	**7**
Nonearning Spouse	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Source: Congressional Budget Office tabulations of 1997 and 2000 individual income tax returns and tax information returns.

Note: n.a. = not applicable.

more in real terms in 2000, thereby dampening the growth rate.

The overall 10 percent growth rate—a rate exceeded only in the lowest income class—results from an upward shift in the real income distribution of the population. The average income in each class (except the highest one) was roughly similar in each year, but the overall average income was higher in 2000 because more people were in the higher groups. Thus, even if there was no change in average contributions in each income class, overall average contributions would increase.

Married individuals who were either the primary or sole earner in the family continued to make the highest average contributions. The growth rate for those groups was slightly lower than average, but the difference in growth rates among marital status/earner role was not as great as among age or income groups.

Table 5.

Workers' Contributions to Individual Retirement Accounts, 1997 and 2000

Category	1997			2000		
	Number of Participants (Thousands)	Average Contribution (1997 dollars)	Percentage of Participants Contributing the Maximum	Number of Participants (Thousands)	Average Contribution (1997 dollars)	Percentage of Participants Contributing the Maximum
			By Age Cohort			
Under 30	1,020	1,407	51	1,772	1,378	57
30 to 44	2,815	1,530	56	3,800	1,474	64
45 to 59	2,971	1,675	69	4,189	1,564	75
60 and Over	1,012	1,713	70	1,099	1,659	83
All Cohorts	**7,818**	**1,593**	**62**	**10,860**	**1,512**	**69**
			By Adjusted Gross Income (1997 dollars)			
Under $20,000	1,083	1,489	58	1,268	1,378	58
$20,000 to $40,000	2,158	1,517	56	2,376	1,409	57
$40,000 to $80,000	2,511	1,502	57	3,760	1,479	67
$80,000 to $120,000	995	1,776	71	2,015	1,638	77
$120,000 to $160,000	443	1,854	79	773	1,644	87
$160,000 and Over	628	1,918	87	668	1,778	97
All Income Groups	**7,818**	**1,593**	**62**	**10,860**	**1,512**	**69**
			By Marital Status/Earner Role			
Single Earners	2,833	1,549	62	3,820	1,451	67
Married Earners						
Sole	1,444	1,626	62	1,684	1,571	72
Primary	1,878	1,613	62	2,673	1,546	69
Secondary	1,663	1,615	63	2,683	1,527	70
All Earners	**7,818**	**1,593**	**62**	**10,860**	**1,512**	**69**
Nonearning Spouse	1,142	1,583	62	1,466	1,559	75

Source: Congressional Budget Office tabulations of 1997 and 2000 individual income tax returns and tax information returns.

IRAs. The $2,000 limit on IRA contributions did not change between 1997 and 2000.[4] In inflation-adjusted terms, a $2,000 nominal contribution in 2000 was the equivalent of an $1,866 contribution in 1997. Almost two-thirds of participants already contributed the maximum in 1997 and could not increase their contributions in 2000. When combined with the real growth in contributions among those not at the maximum, however, the overall average real contribution declined over that period by only $81 to $1,512 (see Table 5). That represents 81 percent of the maximum allowable contribution, slightly higher than the 1997 average of 80 percent of the maximum allowable contribution. Furthermore, the percentage contributing the maximum increased by 7 percentage points to 69 percent.

Average real contributions increased slightly with age in 2000, but the average in each group was within $150 of the overall average. The percentage contributing the maximum also increased with age, ranging from 57 percent in the under-30 group to 83 percent in the 60-and-over group. The biggest decline in average real contributions came in the 45-to-59 group, where the average fell by $111.

4. In addition to the $2,000 limit, IRA contributions in 1997 and 2000 were limited to the amount of compensation (except for nonearning spouses, in which case the combined contributions of the spouses were limited to the compensation of the earning spouse). That limit was rarely binding.

Average real contributions also increased with income. In the highest income group in 2000, 97 percent contributed the maximum, and the average contribution was $1,778. In the lowest income group, only 58 percent contributed the maximum, and the average contribution was $1,378. In each successively higher income group, the average contribution in 2000 was slightly higher than it was in the previous group. The percentage contributing the maximum in 2000 was basically unchanged from 1997 for the lowest two income groups but increased by approximately 10 percentage points in each of the higher-income groups.

Average real contributions varied little by marital status/earner role. The most notable change from 1997 was the 13 percentage-point increase in the number of nonearning spouses contributing the maximum. Prior to 1997, nonearning spouses were limited to annual contributions of $250. The 1997 figure may reflect some ignorance of the increased limit (to $2,000), which would have been better known by 2000.

Keoghs. The $30,000 limit on Keogh contributions did not increase between 1997 and 2000. Average Keogh contributions, however, increased as a result of inflation and real growth in self-employment income. The overall average real contribution increased by nearly 4 percent to $8,405 (see Table 6 on page 10). The percentage contributing the maximum also increased by 3 percentage points to 9 percent.

The growth in average contributions was uneven across age and income groups. That unevenness was most likely the result of the small sample size available for Keoghs. Most notable was an 11 percent decrease in average real contributions between 1997 and 2000 among participants ages 60 and older. By marital status/earner role, growth in average contributions was fairly even.

Keogh contributions are limited not only by a statutory dollar ceiling but also by the amount of self-employment income. The latter constraint seems to be the more binding. In the lowest income class, 10 percent of participants contributed the maximum in 2000. Because the $30,000 statutory ceiling ($27,990 in 1997 dollars) is higher than the $20,000 income ceiling for that group, the binding constraint can only be the amount of self-employment income.[5] In each of the next four higher income classes, the percentage contributing the maximum was smaller than or the same as in the preceding class, reflecting the reduced likelihood of contributing 100 percent of self-employment income in those groups. Only for the highest group did the percentage contributing the maximum exceed that for the lower-income groups, reflecting participants hitting the statutory dollar ceiling.

The percentage contributing the maximum increased for all earner roles among married couples. Among unmarried participants, however, the percentage contributing the maximum remained unchanged.

Comparison of Roth IRAs and Traditional IRAs

Roth IRAs were introduced in 1998 and therefore were not considered in CBO's examination of participation in 1997. Roth IRAs differ from traditional IRAs in that contributions are not deductible, but withdrawals are exempt from tax. The dollar limit on contributions ($2,000 in 2000) applies to all IRA contributions: it can all be applied to one type or to the other, or it can be split between the two types. Allowable Roth contributions phase out for higher-income individuals and are zero at income levels above $160,000. Contributions to traditional IRAs are allowable regardless of income but are not deductible by higher-income individuals who are covered (or whose spouses are covered) by an employment-based plan (see Box 1). A $2,000 contribution to either type of IRA will accumulate the same value over time, but because a tax will be due on a withdrawal from a traditional IRA, an equal balance in a Roth IRA is actually worth more. Hence, if all else is equal, it makes sense for somebody with $2,000 available to deposit in an IRA to contribute it to a Roth IRA rather than a traditional IRA.

Participation Rates

Overall, the 8 percent participation rate in IRAs in 2000 was split approximately evenly between Roth IRAs and traditional IRAs (see Table 7 on page 11). There was little difference between the two types by marital status/earner role, although one-earner married couples had a slight preference for traditional IRAs over Roth IRAs. The even split did not extend to each age and income group, however.

In addition to the different statutory requirements for participation in the two types of IRAs, the incentives to participate differ on the basis of factors that correlate to age and income. The attractiveness of an IRA depends

5. In theory, passive losses and loss carryovers from previous years could render the dollar ceiling binding for some Keogh participants in income groups below $20,000, but that would be a very rare occurrence.

Box 1.

Phaseout Ranges for Contributions to Individual Retirement Accounts

Allowable Roth IRA contributions phased out between the following income levels in 2000:

Unmarried taxpayers	\$95,000-\$110,000
Married taxpayers filing joint returns	\$150,000-\$160,000
Married taxpayers filing separate returns	Zero-\$10,000

For taxpayers who were covered (or whose spouses were covered) by an employment-based plan, the deductibility of contributions to traditional IRAs phased out between the following income levels in 1997 and 2000:

	1997	2000
Unmarried taxpayers	\$25,000-\$35,000	\$32,000-\$42,000
Married taxpayers filing joint returns		
Spouse covered by an employment-based plan	\$40,000-\$50,000	\$52,000-\$62,000
Spouse not covered by an employment-based plan	\$40,000-\$50,000	\$150,000-\$160,000
Married taxpayers filing separate returns	Zero-\$10,000	Zero-\$10,000

partly on the tax rate at the time of contribution compared with the anticipated tax rate at the time of withdrawal. If one anticipates the rate at withdrawal to be lower than the rate at contribution, then the traditional IRA is more attractive, and vice versa. Workers in their peak earning years are the most likely to fall into that category, which generally means that older workers should find traditional IRAs more attractive than Roth IRAs. In contrast, younger and lower-income workers should prefer Roth IRAs.

Those expectations are supported by the data, which show workers under age 30 preferring Roth IRAs, workers ages 45 and older preferring traditional IRAs, and workers between 30 and 44 splitting evenly between the two. Participation in both types of IRAs increased with age up to age 60 (much faster for traditional IRAs). Above age 60, however, participation in Roth IRAs dropped to the lowest level of any age group (2 percent), whereas participation in traditional IRAs remained at the same level as the next youngest age group (7 percent). Those patterns could also reflect inertia among older workers in either of two respects: those who had already established traditional IRAs sticking with them rather than switching to Roths, and those who had not established traditional IRAs being less attracted to Roth IRAs than were younger workers without traditional IRAs.

One might think that higher-income workers would also prefer traditional IRAs, since their tax rate is unlikely to be higher when the funds are withdrawn. Their preferences notwithstanding, however, their access to the benefits of traditional IRAs was frequently constrained by the income thresholds that limit deductibility of contributions. Therefore, the picture that emerges from the data is unclear. Workers with income in excess of \$160,000 used only traditional IRAs (at a rate of 14 percent), but that was because of statutory limits on Roth participation. At income levels between \$80,000 and \$160,000—above the income thresholds for those covered by employment-based plans—Roth IRAs were distinctly preferred (by as much as 4 percentage points), reaching a high of 11 percent at income levels between \$120,000 and \$160,000. At income levels below \$80,000, there was little difference in participation between the two types of IRAs.

Contributions

Average contributions to Roth IRAs exceeded those to traditional IRAs by \$39, a difference of less than 3 percent (see Table 8 on page 12). The percentage contributing the maximum, in contrast, was lower for Roth participants than for traditional participants.

Table 6.

Workers' Contributions to Keoghs, 1997 and 2000

Category	1997			2000		
	Number of Participants (Thousands)	Average Contribution (1997 dollars)	Percentage of Participants Contributing the Maximum	Number of Participants (Thousands)	Average Contribution (1997 dollars)	Percentage of Participants Contributing the Maximum
			By Age Cohort			
Under 30	24	4,675	1	28	5,137	3
30 to 44	469	8,050	5	476	7,909	7
45 to 59	546	8,211	7	657	9,093	11
60 and Over	121	8,612	9	172	7,675	8
All Cohorts	**1,159**	**8,115**	**6**	**1,332**	**8,405**	**9**
			By Adjusted Gross Income (1997 dollars)			
Under $20,000	42	2,245	6	46	2,132	10
$20,000 to $40,000	104	2,665	6	116	3,088	6
$40,000 to $80,000	286	4,098	3	336	4,480	6
$80,000 to $120,000	242	6,360	3	275	6,127	4
$120,000 to $160,000	145	9,433	3	145	8,977	3
$160,000 and Over	340	14,578	12	415	15,067	17
All Income Groups	**1,159**	**8,115**	**6**	**1,332**	**8,405**	**9**
			By Marital Status/Earner Role			
Single Earners	223	7,290	5	273	7,465	5
Married Earners						
Sole	290	11,311	9	296	12,189	13
Primary	377	9,812	6	443	10,054	9
Secondary	268	2,960	4	320	3,409	8
All Earners	**1,159**	**8,115**	**6**	**1,332**	**8,405**	**9**
Nonearning Spouse	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Source: Congressional Budget Office tabulations of 1997 and 2000 individual income tax returns and tax information returns.

Note: n.a. = not applicable.

One reason that the average contribution to a Roth IRA was higher than the average contribution to a traditional IRA even though a higher percentage of traditional IRA participants contributed the maximum is because of the income restrictions on Roth participation. Of traditional IRA participants in the $160,000-and-above income group, 97 percent contributed the maximum. At that income level, however, Roth contributions are prohibited. The absence of that group in the overall Roth figures pulls the percentage down from what it otherwise would be. Nevertheless, corresponding percentages were lower for Roth participants than for traditional participants in every income class except the lowest.

Among age groups, the difference between average contributions to Roth and traditional IRAs was most pronounced in the under-30 group—Roth contributions were 21 percent higher. Average Roth contributions were approximately 6 percent higher than those to traditional IRAs in the middle two groups. In the oldest group, average contributions to Roth IRAs were 6 percent lower than those to traditional IRAs.

Among income groups, the difference between average contributions to Roth and traditional IRAs was most pronounced between $40,000 and $120,000. In the lower-income groups, average contributions to traditional IRAs were slightly higher than those to Roth IRAs, but the dif-

Table 7.

Workers' Participation in Traditional Versus Roth Individual Retirement Accounts, 2000

Category	Number of Workers (Thousands)	Percentage Participating in Either Type	Percentage Participating in Traditional IRAs	Percentage Participating in Roth IRAs
		By Age Cohort		
Under 30	40,068	4	1	3
30 to 44	49,411	8	4	4
45 to 59	35,316	12	7	5
60 and Over	11,388	10	7	2
All Cohorts	**136,183**	**8**	**4**	**4**
		By Adjusted Gross Income (1997 dollars)		
Under $20,000	42,057	3	1	2
$20,000 to $40,000	31,553	7	4	3
$40,000 to $80,000	38,040	10	5	5
$80,000 to $120,000	14,258	16	6	10
$120,000 to $160,000	4,740	20	9	11
$160,000 and Over	5,536	14	14	0
All Income Groups	**136,183**	**8**	**4**	**4**
		By Marital Status/Earner Role		
Single Earners	67,635	6	3	3
Married Earners				
Sole	19,756	9	5	3
Primary	24,396	11	6	6
Secondary	24,396	11	6	5
All Earners	**136,183**	**8**	**4**	**4**
Nonearning Spouse	19,756	7	5	3

Source: Congressional Budget Office tabulations of individual income tax returns and tax information returns for 2000.

Note: Participation consists of making a contribution to a traditional IRA or a Roth IRA during the given year.

ference was only $10 or less. In the $120,000-to-$160,000 group, average Roth contributions were larger, but only by $14. Between $40,000 and $80,000 of AGI, however, average Roth contributions were $136 higher, and between $80,000 and $120,000 of AGI, they were $83 higher.

Average Roth contributions were higher than those to traditional IRAs for every marital status/earner role, including nonearning spouse. The smallest difference ($8) was among married workers who are the sole earner in the family. Likewise, the percentage contributing the maximum to a Roth IRA was smaller than the percentage contributing the maximum to a traditional IRA for every marital status/earner role except nonearning spouses, for whom the percentages were equal.

Special Plans for Small Businesses

Two types of special plans for small businesses can be identified in the data for 2000 that were not broken out in the 1997 data: simplified employee pensions and savings incentive match plans for employees. Some SEPs are reported as Keoghs, leaving a residual amount of Keoghs that are also associated primarily with small businesses.

Table 8.

Workers' Contributions to Traditional Versus Roth Individual Retirement Accounts, 2000

Category	Traditional IRAs: Number of Participants (Thousands)	Traditional IRAs: Average Contribution (1997 dollars)	Traditional IRAs: Percentage of Participants Contributing the Maximum	Roth IRAs: Number of Participants (Thousands)	Roth IRAs: Average Contribution (1997 dollars)	Roth IRAs: Percentage of Participants Contributing the Maximum
			By Age Cohort			
Under 30	487	1,146	51	1,358	1,387	56
30 to 44	1,809	1,370	65	2,139	1,460	58
45 to 59	2,613	1,481	73	1,714	1,565	70
60 and Over	848	1,636	81	282	1,549	82
All Cohorts	**5,757**	**1,440**	**70**	**5,493**	**1,479**	**62**
			By Adjusted Gross Income (1997 dollars)			
Under $20,000	627	1,333	54	687	1,326	57
$20,000 to $40,000	1,412	1,355	57	1,067	1,345	50
$40,000 to $80,000	1,917	1,354	69	1,991	1,490	59
$80,000 to $120,000	772	1,539	77	1,303	1,622	73
$120,000 to $160,000	363	1,579	85	439	1,593	83
$160,000 and Over	666	1,783	97	5	n.a.	n.a.
All Income Groups	**5,757**	**1,440**	**70**	**5,493**	**1,479**	**62**
			By Marital Status/Earner Role			
Single Earners	1,819	1,364	67	2,162	1,416	61
Married Earners						
Sole	1,074	1,512	70	672	1,520	69
Primary	1,392	1,480	72	1,361	1,524	61
Secondary	1,473	1,445	71	1,298	1,517	62
All Earners	**5,757**	**1,440**	**70**	**5,493**	**1,479**	**62**
Nonearning Spouse	983	1,486	72	532	1,552	72

Source: Congressional Budget Office tabulations of individual income tax returns and tax information returns for 2000.

Note: n.a. = not applicable.

Participation Rates

Approximately 3 percent of workers in 2000 participated in a small business retirement plan (see Table 9). A plurality of those participated in SEPs, but the differences in participation rates between the two special types of plans (and between them and the residual Keoghs) was not large. Among age groups, participation was lowest for those below age 30 (1 percent) and highest for those between 45 and 59 (4 percent). In all but the youngest age group, SEP participants outnumbered SIMPLE participants. That may reflect the fact that SEPs have existed since 1979, whereas SIMPLEs were first allowed in 1997. SEPs have therefore had time to age along with the workforces they cover.

Participation increased with income from 1 percent in the lowest income group to 14 percent in the highest. Two-earner married couples (both primary and secondary earners) participated at above-average rates (5 percent and 4 percent, respectively), and unmarried workers participated at below-average rates (1 percent).

Contributions

SEP contributions are made by employers to an IRA-type account. In 2000, average contributions to SEPs were

Table 9.

Workers' Participation in Small Business Retirement Plans, 2000

Category	Number of Workers (Thousands)	Percentage Participating in Either Type[a]	Percentage Participating in SEPs	Percentage Participating in SIMPLEs
		By Age Cohort		
Under 30	40,068	1	<1	1
30 to 44	49,411	3	1	1
45 to 59	35,316	4	2	1
60 and Over	11,388	3	1	1
All Cohorts	**136,183**	**3**	**1**	**1**
		By Adjusted Gross Income (1997 dollars)		
Under $20,000	42,057	1	<1	<1
$20,000 to $40,000	31,553	2	1	1
$40,000 to $80,000	38,040	3	1	1
$80,000 to $120,000	14,258	5	3	1
$120,000 to $160,000	4,740	7	4	2
$160,000 and Over	5,536	14	6	3
All Income Groups	**136,183**	**3**	**1**	**1**
		By Marital Status/Earner Role		
Single Earners	67,635	1	1	1
Married Earners				
Sole	19,756	3	1	1
Primary	24,396	5	2	2
Secondary	24,396	4	2	1
All Earners	**136,183**	**3**	**1**	**1**
Nonearning Spouse	19,756	n.a.	n.a.	n.a.

Source: Congressional Budget Office tabulations of individual income tax returns and tax information returns for 2000.

Notes: Participation consists of making a contribution to a small business plan during 2000.

SEP = simplified employee pension; SIMPLE = savings incentive match plan for employees; n.a. = not applicable.

a. Includes SEPs, SIMPLEs, and non-SEP Keoghs.

$4,755 (see Table 10). They were highest among the 45-to-59 age group and lowest among the under-30 group. The percentage of participants receiving the maximum statutory amount increased with age, averaging 21 percent overall.[6] Average contributions increased with income, ranging from $1,088 in the lowest class to $9,913 in the highest class. The percentage receiving the maximum allowable contribution, however, showed no discernible pattern by income group. By marital status/earner role, average SEP contributions were highest among married workers who were either the primary or sole earners in the family. Secondary earners had the lowest average contributions.

6. The maximum allowable SEP contribution in 2000 was the lesser of $30,000 or 15 percent of compensation. However, the maximum amount of compensation that could be considered was $170,000, making the effective limit 15 percent of that amount, or $25,500 ($23,792 in 1997 dollars). The percentage-of-compensation limit explains the relatively high percentages of participants at the limit in the lower-income groups.

Table 10.

Contributions to Simplified Employee Pensions and Savings Incentive Match Plans for Employees, 2000

Category	SEPs			SIMPLEs		
	Number of Participants (Thousands)	Average Employer Contribution (1997 dollars)	Percentage of Participants Receiving the Maximum Contribution	Number of Participants (Thousands)	Average Participant Plus Employer Contribution (1997 dollars)	Percentage of Participants Contributing the Maximum
			By Age Cohort			
Under 30	141	2,330	7	268	1,493	2
30 to 44	670	4,858	17	569	2,789	5
45 to 59	704	5,287	26	429	3,548	10
60 and Over	156	4,101	32	75	3,343	16
All Cohorts	**1,670**	**4,755**	**21**	**1,341**	**2,804**	**7**
			By Adjusted Gross Income (1997 dollars)			
Under $20,000	108	1,088	27	142	1,089	6
$20,000 to $40,000	233	2,155	23	345	1,527	2
$40,000 to $80,000	507	3,074	17	484	2,558	3
$80,000 to $120,000	357	4,390	20	165	4,145	11
$120,000 to $160,000	153	7,191	26	76	4,876	16
$160,000 and Over	313	9,913	22	129	6,099	25
All Income Groups	**1,670**	**4,755**	**21**	**1,341**	**2,804**	**7**
			By Marital Status/Earner Role			
Single Earners	418	3,946	22	444	2,012	4
Married Earners						
Sole	277	6,961	17	145	3,838	11
Primary	524	6,097	19	415	3,706	4
Secondary	451	2,596	26	337	2,290	13
All Earners	**1,670**	**4,755**	**21**	**1,341**	**2,804**	**7**
Nonearning Spouse	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Source: Congressional Budget Office tabulations of individual income tax returns and tax information returns for 2000.

Note: n.a. = not applicable.

SIMPLE contributions are made by both employees and employers. In 2000, average combined contributions to SIMPLEs were $2,804. They were highest among the 45-to-59 age group and lowest among the under-30 group. The percentage of participants with employee contributions at the maximum statutory amount of $6,000 ($5,598 in 1997 dollars) increased with age, averaging 7 percent overall.[7] Average contributions increased with income, ranging from $1,089 in the lowest class to $6,099 (including employer contributions) in the highest class. By marital status/earner role, average SIMPLE contributions were highest among married workers who were either the primary or sole earners in the family. Unmarried workers had the lowest average contributions.

7. SIMPLEs have no percentage-of-compensation limit on employee contributions. Therefore, fewer SIMPLE participants than SEP participants are constrained by a limit in the lower-income groups.