## Notes and Brief Reports

## Social Security Beneficiaries Enrolled in the Direct Deposit Program, December 1986*

Since the introduction in 1975 of the direct deposit of Social Security benefit checks through an electronic funds transfer (EFT) system, the number of beneficiaries electing this method of payment has increased steadily. At the end of $1986,16.5$ million, or 44 percent of all beneficiaries, were enrolled in the direct deposit program. Ten years earlier the participation rate had been only 14 percent. The increase in the popularity of direct deposit can be directly attributed to increased public awareness of the many advantages that direct deposit has over receiving a check in the mail.

Although the EFT system in effect today was not introduced until 1975, a restricted form of direct deposit did exist before then. In November 1970, the direct deposit option became available to all beneficiaries who filed a "power-of-attorney" with the bank receiving the deposit. Until that date, direct deposit was allowed only in cases involving extenuating circumstances. Public Law 92-366, enacted on August 7, 1972, authorized Federal agencies to draw checks payable to financial institutions, thereby eliminating the need for a "power-ofattorney." This legislation also permitted the issuance of composite checks in situations where a single financial institution received monthly checks for more than one beneficiary. Thus, Public Law 92-366 cleared the way for the present direct deposit program.

In November 1973, a committee comprised of representatives of the Social Security Administration and the Department of the Treasury recommended the creation of a comprehensive direct deposit program, preferably accomplished through an EFT system. The consensus was that direct deposit would result in im-

[^0]proved service to beneficiaries and reduced administrative costs. ${ }^{1}$

In 1977, 2 years after implementation of the EFT program, SSA and the Treasury Department contracted with Temple University to conduct a study of direct deposit. ${ }^{2}$ The principal objectives of the study were to determine why Social Security beneficiaries had enrolled in, had not enrolled in, or had cancelled enrollment in the direct deposit program, and to determine whether any modifications were necessary. The study findings included the following:
(1) Convenience was the primary reason for requesting direct deposit, followed by personal safety and physical problems involved in going to the bank.
(2) Reasons for beneficiary withdrawal from the program included change of address, dissatisfaction with bank procedures, and the belief that it was more convenient to receive checks directly.
(3) The wish to see and handle their checks personally was the principal reason given by beneficiaries for not electing the option.
(4) A considerable percentage of bencficiaries was unaware that direct deposit was available.
(5) Beneficiaries with higher educational attainment were more likely to elect direct deposit.

The data for this article, which were derived from a 10 -percent sample of the Master Beneficiary Recordthe major administrative data base for the Social

[^1]Security Administration-focus on the characteristics of those using direct deposit: age, sex, race, benefit amount, and State of residence.

## Demographic Characteristics

During the period 1976-86, the participation rate in the direct deposit program increased from 14.3 percent to 43.8 percent (table 1). The number of beneficiaries using direct deposit increased from 4.7 million to 16.5 million. During this period, the monthly amount of direct deposits rose from $\$ 1.1$ billion to $\$ 7.9$ billion.

As in the past, a higher proportion ( 49 percent) of retired-worker beneficiaries used direct deposit than did other beneficiary groups. The next highest proportion was found among widows, widowers, and parents (47 percent), followed by spouses of retired workers ( 42 percent). The high participation rate of these groups may be attributed to their ages rather than to the type of benefit received. Generally, the older the beneficiary the more likely he or she is to enroll in the program (table 2).

Minority beneficiaries were underrepresented among those using direct deposit. Only 21 percent of black beneficiaries and 28 percent of those of other races used direct deposit, compared with 47 percent of white beneficiaries.

## Monthly Benefit

Regardless of the type of benefit received, persons using direct deposit had higher average monthly benefits than did those not using direct deposit. At the end of 1986, retired- and disabled-worker beneficiaries using direct deposit had average monthly benefit amounts of $\$ 515.26$ and $\$ 526.59$, respectively. The corresponding averages for beneficiaries not using direct deposit were $\$ 463.25$ and $\$ 467.80$ (table 3).
Table 4 further illustrates the relationship between the benefit level and enrollment in the direct deposit program. Beneficiaries with higher benefits enroll for direct deposit in higher proportions than do those receiving lower amounts. For example, only 23 percent of the beneficiaries receiving benefits of less than $\$ 200$ were enrolled for direct deposit. In comparison, the participation rate was 54 percent among beneficiaries receiving $\$ 600$ or more. White beneficiaries, however, participate in larger proportions at every benefit level than do black beneficiaries.

The proportion of women enrolled in the direct deposit program exceeded that of men at all benefit levels above $\$ 200$. Among beneficiaries with benefits of $\$ 500.00-\$ 599.90,57$ percent of the women, compared with 49 percent of the men, used direct deposit. However, overall, the proportion of women enrolled (47 percent) was only slightly higher than that for men ( 45 percent). This difference reflects the fact that more women than men receive lower benefits. Consequently,

Table 1.-Number and percent of beneficiaries using direct deposit, by type of beneficiary, 1976-86

| Type of bencficiary | Dcomber 1976 |  | Decomber 1978 |  | Decomber 1980 |  | Deomber $1982^{1}$ |  | December 1984 |  | Decomber 1986 ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Perocnt | Number | Percent | Number | Percent | Number | Percent | Number | Percant | Number | Ptrocnt |
| Total | 4,716,111 | 14.3 | 7,947,425 | 23.0 | 10,393.684 | 29.2 | 12,602,920 | 35.2 | 14,851.758 | 40.7 | $16,496,270$ | 43.8 |
| Retired workers and dependents $\qquad$ | 3,374,514 | 16.3 | 5,617.632 | 25.5 | 7,429.390 | 32.0 | 9,284,770 | 38.2 | 11,126,146 | 43.7 | 12,504,890 | 47.2 |
| Retired workers.. | 2,908,752 | 16.9 | 4,871,222 | 26.5 | 6,498,125 | 33.2 | 8,185,050 | 39.5 | 9.860,541 | 45.0 | 11,138,520 | 48.6 |
| Wives and husbands. | 424,847 | 14.7 | 677,096 | 22.7 | 847,968 | 28.1 | 1,013,560 | 33.5 | 1,180,875 | 38.7 | 1,283,450 | 41.6 |
| Children . . . . . . . . . | 40.915 | 6.3 | 69,314 | 10.5 | 83,297 | 13.0 | 86,160 | 15.4 | 84,730 | 17.8 | 82.920 | 18.4 |
| Disabled workers and dependents | 449,465 | 9.7 | 818,034 | 16.8 | 990,72】 | 21.2 | 993.770 | 24.9 | 1,055,081 | 27.6 | 1.111 .010 | 27.9 |
| Disabled workers.. | 325,395 | 12.2 | 597,670 | 20.8 | 735,609 | 25.7 | 773,420 | 29.6 | 834,894 | 32.2 | 891,270 | 32.8 |
| Wives and husbands. | 37,669 | 7.9 | 69,037 | 14.0 | 80,040 | 17.3 | 72.810 | 19.8 | 67,814 | 22.3 | 64,950 | 21.7 |
| Children | 86,401 | 5.8 | 151,327 | 10.1 | 175,072 | 12.9 | 147.540 | 14.7 | 152,373 | 16.5 | 154,790 | 16.1 |
| Survivors.......... | 875,478 | 11.7 | 1,490,166 | 19.6 | 1,952,234 | 25.7 | 2,307,020 | 31.1 | 2,655,552 | 37.0 | 2,871,210 | 40.1 |
| Widows, widowers, and parents. | 605,937 | 15.1 | 1,032,043 | 24.4 | 1,394,436 | 31.5 | 1,730,170 | 37.6 | 2,082,735 | 43.5 | 2,320,640 | 47.0 |
| Widowed mothers and fathers. | 54,153 | 9.4 | 93,523 | 16.2 | 115,192 | 20.5 | 120,320 | 23.4 | 113,227 | 29.6 | 100,040 | 28.4 |
| Children | 215.388 | 7.4 | 364,600 | 13.1 | 442,606 | 17.0 | 456,530 | 19.7 | 459,590 | 22.9 | 450,530 | 24.1 |
| Special age-72........ | 16,654 | 8.9 | 21,593 | 16.1 | 21,339 | 23.0 | 17,360 | 28.1 | 14,979 | 37.1 | 9.160 | 37.6 |

'Based on 10-perœnt sample.

Table 2.-Number and percent of beneficiaries and average monthly benefit amounts, by direct deposit status, age, sex, and race, December 1986
[Based on 10-percent sample]

| Age, sex, and race | All beneficiaries |  | Direct deposit status |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Using |  |  | Not using |  |  |
|  | Number | Average monthly amount | Nunber | Percent | Average monthly amount | Number | Perocnt | Average monthly amount |
| Total | 37,635,580 | \$438.62 | $16,496,270$ | 43.8 | \$480.34 | 21,139,310 | 56.2 | \$406.06 |
| Age |  |  |  |  |  |  |  |  |
| Adults | 34,308,980 | 455.70 | 15,799,500 | 46.1 | 487.34 | 18,509,480 | 53.9 | 428.69 |
| Younger than 30. | 187,010 | 306.36 | 34,290 | 18.3 | 338.90 | 152,720 | 81.7 | 299.05 |
| 30-39........... | 582,290 | 377.37 | 159,300 | 27.4 | 427.19 | 422,990 | 72.6 | 358.61 |
| 40.49 | 672,510 | 424.26 | 188,840 | 28.1 | 479.25 | 483,670 | 71.9 | 402.79 |
| 50.59 | 1,098,710 | 450.87 | 338,320 | 30.8 | 495.75 | 760,390 | 69.2 | 430.91 |
| 60-69 | 13,051,020 | 431.66 | 5,629,200 | 43.1 | 459.35 | 7,421,820 | 56.9 | 410.65 |
| 70.79 | 12,731,770 | 491.13 | 6,475,100 | 50.9 | 519.17 | 6,256,670 | 49.1 | 462.12 |
| 80 or older | 5,985,670 | 449.45 | 2,974,450 | 49.7 | 475.50 | 3,011,220 | 50.3 | 423.73 |
| Children ${ }^{\text {²,.. }}$ | 3,326,600 | 262.46 | 696,770 | 20.9 | 321.57 | 2,629,830 | 79.1 | 246.79 |
| Sex |  |  |  |  |  |  |  |  |
| Men.. | 13,974,020 | 546.18 | 6,283,950 | 45.0 | 579.32 | 7,690,070 | 55.0 | 519.10 |
| Younger than 30. | 90,390 | 353.58 | 15,530 | 17.2 | 383.97 | 74,860 | 82.8 | 347.27 |
| $30-39 \ldots . . .$ | 250,190 | 482.61 | 67,220 | 26.9 | 530.65 | 182,970 | 73.1 | 464.96 |
| 40.49 | 315,560 | 546.69 | 90,730 | 28.8 | 598.12 | 224,830 | 71.2 | 525.93 |
| 50-59 | 612,510 | 544.86 | 193,790 | 31.6 | 585.73 | 418,720 | 68.4 | 525.95 |
| 60.69 | 5,573,130 | 529.39 | 2,404,400 | 43.1 | 557.76 | 3,168,730 | 56.9 | 507.87 |
| 70-79 | 5,215,850 | 585.06 | 2,605,480 | 50.0 | 614.94 | 2,610,370 | 50.0 | 555.23 |
| 80 or older | 1,916,390 | 506.93 | 906,800 | 47.3 | 537.87 | 1,009,590 | 52.7 | 479.15 |
| Women . . . | 20,334,960 | 393.52 | 9,515,550 | 46.8 | 426.60 | 10,819,410 | 53.2 | 364.43 |
| Younger than 30. | 96,620 | 262.18 | 18,760 | 19.4 | 301.60 | 77,860 | 80.6 | 252.68 |
| 30-39.... . . . . | 332,100 | 298.09 | 92,080 | 27.7 | 351.67 | 240,020 | 72.3 | 277.54 |
| 40.49 | 356,950 | 316.03 | 98,110 | 27.5 | 369.32 | 258,840 | 72.5 | 295.83 |
| 50.59 | 486,200 | 332.46 | 144,530 | 29.7 | 375.10 | 341,670 | 70.3 | 314.43 |
| 60.69 | 7,477,890 | 358.82 | 3,224,800 | 43.1 | 385.99 | 4,253,090 | 56.9 | 338.22 |
| 70.79 . | 7,515,920 | 425.95 | 3,869,620 | 51.5 | 454.69 | 3,646,300 | 48.5 | 395.45 |
| 80 or older | 4,069,280 | 422.39 | 2,067,650 | 50.8 | 448.15 | 2,001,630 | 49.2 | 395.77 |
| Race |  |  |  |  |  |  |  |  |
| White | 33,303,930 | 449.57 | 15,538,530 | 46.7 | 484.01 | 17,765,400 | 53.3 | 419.44 |
| Black | 3,562,840 | 353.81 | 745,030 | 20.9 | 415.04 | 2,817,810 | 79.1 | 337.62 |
| Other | 768,810 | 357.32 | 212,710 | 27.7 | 440.55 | 556,100 | 72.3 | 325.49 |

'Includes adult disabled children.
since persons with lower benefits elect direct deposit less frequently than do other beneficiaries, the overall participation rate for women is reduced.

## State of Residence

At the end of 1986, more than 60 percent of the beneficiaries in Arizona, Florida, Oregon, and Washington were enrolled in the direct deposit program
(table 5). Eleven other States had a participation rate exceeding 50 percent. Ten of the 15 States with a participation rate of 50 percent or more were in the West geographic region, as defined by the Bureau of the Census (chart 1). In contrast, 13 of the 15 States with a participation rate of less than 40 percent were in the South. ${ }^{3}$

[^2]Table 3.-Number and percent of beneficiaries and average monthly benefit amounts, by type of beneficiary and direct deposit status, December 1986
[Based on 10-peroent sample]

| Type of beneficiary | All beneficiaries |  | Direct deposit status |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Using |  |  | Not using |  |  |
|  | Number | Average monthly amount | Number | Perænt | Average monthly amount | Number | Perccit | Average monthly annount |
| Total | 37,635,580 | \$438.62 | 16,496,270 | 43.8 | \$480.34 | 21,139,310 | 56.2 | \$406.06 |
| Retired workers and dependents.. | 26,474,380 | 456.10 | 12,504,890 | 47.2 | 488.56 | 13,969,490 | 52.8 | 427.05 |
| Retired workers. | 22,938,810 | 488.50 | 11,138,520 | 48.6 | 515.26 | 11,800,290 | 51.4 | 463.25 |
| Wives and husbands | 3,084,980 | 251.92 | 1,283,450 | 41.6 | 272.59 | 1,801,530 | 58.4 | 237.19 |
| Children | 450,590 | 204.48 | 82,920 | 18.4 | 244.30 | 367,670 | 81.6 | 195.50 |
| Disabled workers and dependents. | 3,979,400 | 376.74 | 1,111,010 | 27.9 | 456.67 | 2,868,390 | 72.1 | 345.78 |
| Disabled workers. . . . . . . . . . | 2,718,860 | 487.07 | 891,270 | 32.8 | 526.59 | 1,827,590 | 67.2 | 467.80 |
| Wives and husbands | 299,340 | 130.94 | 64,950 | 21.7 | 156.48 | 234,390 | 78.3 | 123.86 |
| Children | 961,200 | 141.21 | 154,790 | 16.1 | 180.04 | 806,410 | 83.9 | 133.76 |
| Survivors. | 7,157,420 | 409.37 | 2,871,210 | 40.1 | 454.78 | 4,286,210 | 59.9 | 378.95 |
| Widows, widowers, and parents | 4,826,040 | 444.26 | 2,287,530 | 47.4 | 473.76 | 2,538,510 | 52.6 | 417.67 |
| Disabled widows and widowers. | 106,360 | 319.34 | 33,110 | 31.1 | 341.25 | 73,250 | 68.9 | 309.44 |
| Widowed mothers and fathers.. | 351,960 | 338.95 | 100,040 | 28.4 | 376.77 | 251,920 | 71.6 | 323.93 |
| Children | 1,873,060 | 337.83 | 450,530 | 24.1 | 384.06 | 1,422,530 | 75.9 | 323.18 |
| Special age-72 | 24,380 | 139.72 | 9,160 | 37.6 | 140.11 | 15,220 | 62.4 | 139.48 |

Chart 1.-Percent of beneficiaries using direct deposit, December 1986


Table 4.-Number and percent of beneficiaries using direct deposit, by monthly benefit amount, race, and sex, December 1986
[Based on 10-percent sample]

| Monthly benefit amount | Total ${ }^{1}$ |  | White |  | Black |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Percent of all bencficiaries | Number | Percent of all bencticiaries | Number | Peroent of all beneliciaries |
| Total. | 16,496,270 | 43.8 | 15,538,530 | 46.7 | 745,030 | 20.9 |
| Less than \$200.00. | 924,710 | 23.3 | 823,310 | 26.7 | 78,530 | 11.1 |
| \$200.00-\$299.90 | 2,401,720 | 36.5 | 2,221,510 | 39.7 | 143,650 | 17.1 |
| \$300.00-\$399.90. | 2,646,310 | 40.7 | 2,451,910 | 43.5 | 155,300 | 21.1 |
| \$400.00-\$499.90. | 2,862,620 | 46.4 | 2,693,910 | 48.6 | 134,000 | 25.7 |
| \$500.00-\$599.90. | 3,526,150 | 51.9 | 3,377,220 | 53.5 | 115,130 | 29.1 |
| \$600.00 or morc. | 4,134,760 | 54.4 | 3,970,670 | 55.7 | 118,420 | 32.7 |
| Men, total. | 6,283,950 | 45.0 | 5,944,930 | 47.6 | 252,290 | 21.0 |
| Less than \$200.00. | 145,270 | 28.9 | 132,470 | 32.4 | 9,340 | 12.8 |
| \$200.00-\$299.90. | 354,760 | 31.3 | 319,370 | 34.8 | 26,890 | 15.5 |
| \$300.00-\$399.90. | 517,100 | 33.1 | 467,170 | 36.7 | 38,930 | 16.3 |
| \$400.00-\$499.90 | 832,100 | 40.4 | 773,670 | 43.3 | 45,550 | 20.1 |
| \$50000. 8599.90 | 1,671,880 | 48.8 | 1,597,370 | 50.8 | 56,280 | 24.4 |
| \$600.00 or more | 2,762,840 | 52.2 | 2,654,880 | 53.6 | 75,300 | 29.1 |
| Women, total. | 9,524,080 | 46.7 | 9,017,760 | 49.1 | 401,390 | 23.8 |
| Less than \$200.00. | 613,680 | 27.9 | 559,820 | 31.0 | 41,660 | 13.1 |
| \$200.00 \$299.90. | 1,886,390 | 40.2 | 1,771,490 | 43.1 | 92,050 | 18.7 |
| \$300.00-\$399.90. | 1,978,920 | 45.4 | 1,857,760 | 47.6 | 97,130 | 24.8 |
| \$400.00-\$499.90. | 1,918,330 | 51.1 | 1,822,470 | 52.6 | 76,660 | 31.6 |
| \$500.00-\$599.90. | 1,786,350 | 56.6 | 1,719,130 | 57.6 | 52,920 | 36.9 |
| \$600.00 or more | 1,340,410 | 60.4 | 1,287,090 | 61.3 | 40,970 | 42.1 |
| Children, total ${ }^{2}$. | 688,240 | 21.0 | 575,840 | 23.5 | 91,350 | 13.5 |
| Less than \$200.00. | 165,760 | 13.0 | 131,020 | 15.0 | 27,530 | 8.6 |
| \$200.00-\$299.90. | 160,570 | 21.0 | 130,650 | 23.5 | 24,710 | 14.2 |
| \$300.00-\$399.90. | 150,290 | 25.8 | 126,980 | 27.7 | 19,240 | 18.6 |
| \$400.00-\$499.90. | 112,190 | 31.0 | 97,770 | 32.6 | 11,790 | 23.0 |
| \$500.00 or more. | 99,430 | 33.3 | 89,420 | 34.0 | 8,080 | 28.2 |

'Includes persons of other races.

## Technical Note

The data for this study were derived from a 10 -percent sample of the Master Beneficiary Record (MBR) of Social Security beneficiaries receiving benefits in December 1986. A total of 3,763,558 records in current-payment status as of December 1986 composed the sample for this study.

Estimates based on sample data can be expected to differ from figures that would have been obtained had the entire beneficiary population been used. The sample selected for this study is one of a large number of similar probability samples of the same size that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results.
${ }^{2}$ Data by sex not available for children.

One measure of sampling error, summarizing the deviations of individual sample estimates from the average of all possible samples, is called the standard error. The standard error may be used to define confidence intervals or ranges that would have a specified probability of including the average result of all possible samples. Approximately 68 percent of all possible probability samples selected with the same specifications will give estimates within one standard error of the figure obtained from a compilation of all records. Similarly, about 95 percent will give estimates within two standard errors and 99 percent will give estimates within two and one-half standard errors.

Since this study contains a large number of estimates, it is not practical to display the standard error for each one. Estimated standard errors associated

Table 5.-Number and percent of beneficiaries and average monthly benefit amounts, by State, rank, and direct deposit status, December 1986
[Based on 10 -percent sample]

| State | All beneficiaries |  |  | Direct deposit status |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Using |  |  | Not using |  |  |
|  | Rank ${ }^{1}$ | Number | Average monthly amount | Number | Percent | Average monthly amount | Number | Percent | Average monthly amount |
| Total.... |  | 37,635,540 | \$438.62 | 16,496,270 | 43.8 | \$480.34 | 21,139,270 | 56.2 | \$406.06 |
| Alabama | 48 | 668,030 | 388.64 | 216,230 | 32.4 | 449.82 | 451,800 | 67.6 | 359.36 |
| Alaska | 39 | 27,570 | 435.44 | 10,440 | 37.9 | 473.24 | 17,130 | 62.1 | 412.40 |
| Arizona | 3 | 515,990 | 447.70 | 323,340 | 62.7 | 478.04 | 192,650 | 37.3 | 396.77 |
| Arkansas | 37 | 449,390 | 379.65 | 175,370 | 39.0 | 432.56 | 274,020 | 61.0 | 345.78 |
| California. | 16 | 3,456,590 | 451.34 | 1,717,340 | 49.7 | 479.50 | 1,739,250 | 50.3 | 423.54 |
| Colorado | 13 | 374,530 | 431.61 | 192,890 | 51.5 | 456.32 | 181,640 | 48.5 | 405.36 |
| Connecticut | 26 | 504,280 | 495.43 | 224,250 | 44.5 | 526.41 | 280,030 | 55.5 | 470.63 |
| Delaware. | 17 | 96,730 | 464.89 | 47,910 | 49.5 | 503.28 | -48,820 | 50.5 | 427.21 |
| District of Columbia. | 43 | 81,430 | 388.27 | 28,040 | 34.4 | 423.42 | 53,390 | 65.6 | 369.81 |
| Florida............. | 1 | 2,381,100 | 448.64 | 1,514,290 | 63.6 | 476.38 | 866,810 | 36.4 | 400.17 |
| Georgia | 42 | 817,970 | 395.74 | 290,180 | 35.5 | 453.22 | 527,790 | 64.5 | 364.13 |
| Hawaii. | 25 | 133,720 | 431.86 | 59,550 | 44.5 | 469.92 | 74,170 | 55.5 | 401.29 |
| Idaho. | 5 | 147,070 | 431.90 | 86,060 | 58.5 | 458.24 | 61,010 | 41.5 | 394.73 |
| Illinois. | 33 | 1,701,190 | 472.44 | 733,170 | 43.1 | 505.53 | 968,020 | 56.9 | 447.38 |
| Indiana | 32 | 868,050 | 461.23 | 377,580 | 43.5 | 494.32 | 490,470 | 56.5 | 435.76 |
| Iowa.. | 15 | 511,030 | 446.12 | 258,740 | 50.6 | 469.80 | 252,290 | 49.4 | 421.83 |
| Kansas. | 10 | 393,680 | 451.53 | 208,370 | 52.9 | 473.47 | 185,310 | 47.1 | 426.86 |
| Kentucky . | 49 | 617,440 | 387.75 | 198,780 | $32 . ?$ | 445.80 | 418,660 | 67.8 | 360.20 |
| Louisiana. | 51 | 609,880 | 389.38 | 163,730 | 26.8 | 456.95 | 446,150 | 73.2 | 364.59 |
| Maine | 34 | 204,570 | 410.26 | 85,950 | 42.0 | 446.88 | 118,620 | 58.0 | 383.73 |
| Maryland.... | 40 | 574,890 | 449.22 | 212,280 | 36.9 | 481.42 | 362,610 | 63.1 | 430.36 |
| Massachusetts | 21 | 941,340 | 457.24 | 438,130 | 46.5 | 489.49 | 503,210 | 53.5 | 429.17 |
| Michigan . | 20 | 1,426,670 | 470.09 | 681,130 | 47.7 | 502.62 | 745,540 | 52.3 | 440.37 |
| Minnesota | 19 | 638,980 | 433.61 | 306,270 | 47.9 | 465.25 | 332,710 | 52.1 | 404.48 |
| Mississippi | 45 | 433,880 | 357.26 | 144,290 | 33.3 | 429.68 | 289,590 | 66.7 | 321.17 |
| Missouri. | 31 | 876,830 | 431.06 | 383,930 | 43.8 | 461.41 | 492,900 | 56.2 | 407.41 |
| Montana | 6 | 129,150 | 431.18 | 72,140 | 55.9 | 458.56 | 57,010 | 44.1 | 396.54 |
| Nebraska | 12 | 260,780 | 438.58 | 134,690 | 51.6 | 462.97 | 126,090 | 48.4 | 412.52 |
| Nevada . . . . . . | $\begin{array}{r}9 \\ \hline\end{array}$ | 129,970 | 455.21 | 70,110 | 53.9 | 477.03 | 59,860 | 46.1 | 429.66 |
| New Hampshire | 11 | 151,930 | 453.74 | 79,560 | 52.4 | 479.18 | 72,370 | 47.6 | 425.78 |
| New Jersey . | 36 | 1,189,360 | 490.13 | 475,550 | 40.0 | 523.18 | 713,810 | 60.0 | 468.11 |
| New Mexico | 14 | 193,290 | 401.13 | 98,070 | 50.7 | 479.71 | 95,220 | 49.3 | 351.09 |
| New York | 30 | 2,802,140 | 478.22 | 1,228,540 | 43.8 | 514.97 | 1,573,600 | 56.2 | 449.54 |
| North Carolina | 46 | 978,710 | 402.15 | 325,190 | 33.2 | 465.84 | -653,520 | 66.8 | 370.46 |
| North Dakota | 24 | 108,180 | 407.68 | 48,850 | 45.2 | 436.48 | 59,330 | 54.8 | 383.97 |
| Ohio... | 35 | 1,724,370 | 452.29 | 691,100 | 40.1 | 486.53 | 1,033,270 | 59.9 | 429.39 |
| Oklahoma | 29 | 506,360 | 416.09 | 223,300 | 44.1 | 454.82 | 283,060 | 55.9 | 385.53 |
| Oregon..... | 2 | 458,340 | 456.15 | 289,070 | 63.1 | 477.43 | 169,270 | 36.9 | 419.83 |
| Pennsylvania | 38 | 2,163,110 | 464.19 | 834,300 | 38.6 | 498.30 | 1,328,810 | 61.4 | 442.77 |
| Rhode Island | 27 | 176,460 | 452.98 | 78,240 | 44.3 | 486.52 | -98,220 | 55.7 | 426.26 |
| South Carolina | 44 | 496,560 | 398.48 | 169,560 | 34.1 | 464.06 | 327,000 | 65.9 | 364.47 |
| South Dakota | 18 | 124,290 | 403.63 | 59,820 | 48.1 | 430.62 | 64,470 | 51.9 | 378.59 |
| Tennessce | 47 | 777,280 | 397.17 | 255,710 | 32.9 | 461.11 | 521,570 | 67.1 | 365.83 |
| Texas. | 28 | 2,004,720 | 413.82 | 887,810 | 44.3 | 459.46 | 1,116,910 | 55.7 | 377.54 |
| Utah.... | 7 | 169,070 | 445.80 | 93,990 | 55.6 | 470.84 | 75,080 | 44.4 | 414.46 |
| Vermont | 23 | 85,010 | 433.42 | 38,590 | 45.4 | 463.19 | 46,420 | 54.6 | 408.67 |
| Virginia ... | 41 | 778,350 | 411.32 | 279,890 | 36.0 | 458.59 | 498,460 | 64.0 | 384.77 |
| Washington. | 4 | 654,180 | 462.62 | 403,560 | 61.7 | 483.75 | 250,620 | 38.3 | 428.58 |
| West Virginia | 50 | 359,420 | 415.41 | 115,570 | 32.2 | 464.23 | 243,850 | 67.8 | 392.28 |
| Wisconsin ... | 22 | 805,130 | 456.33 | 366,890 | 45.6 | 490.20 | 438,240 | 54.4 | 427.98 |
| Wyoming. | 8 | 56,150 | 443.05 | 31,020 | 55.2 | 465.68 | 25,130 | 44.8 | 415.11 |
| Puerto Rico. | 53 | 548,670 | 254.62 | 37,020 | 6.7 | 385.18 | 511,650 | 93.3 | 245.18 |
| Abroad ${ }^{2}$ | 52 | 351,730 | 313.46 | 29,890 | 8.5 | 406.92 | 321,840 | 91.5 | 304.78 |

[^3]with tabulated counts and proportions were used to fit regression curves to produce estimates of approximate standard errors. The standard errors presented provide a general order of magnitude of the sampling variability of the estimates rather than the standard crror for a particular estimate.

The following tabulation presents approximate standard errors for the estimated number of persons from

| Size of estimate (inflated) | Standard error |
| :---: | :---: |
| 100 | 30 |
| 500 | 70 |
| 1,000 | 100 |
| 5,000 | 225 |
| 10,000 | 300 |
| 50,000 | 700 |
| 100,000 | 1,000 |
| 500,000 | 2,200 |
| 1,000,000 | 3,200 |
| 2,000,000 | 4,300 |
| 3,000,000 | 5,300 |
| 5,000,000 | 6,500 |
| 10,000,000 | 8,500 |
| 20,000,000 | 9,300 |

## Journal Abstracts

Beginning with this issue, the Social Security Bulletin will periodically reprint abstracts of articles from other professional journals. The abstracts that follow, listed by date of publication, are reprinted as they appeared in the cited sources.
"Justifying Public Provision of Social Security," Laurence J. Kotlikoff, Journal of Policy Analysis and Management, Summer 1987, Vol. 6, No. 4, pages 674.696.

The enormous expansion of the Social Security system over the last four decades has left the government very heavily involved in determining the savings and insurance of American households. While the growth of Social Security has been very substantial, it has also been gradual; this may explain the lack of focused debate on the pros and cons of government intervention in private saving and insurance decisions. This paper discusses the rationale for government intervention in this area as well as the evidence supporting the need for such intervention. While arguing the帾
the 10 percent file. Linear interpolation may be used to obtain values not shown. Table 6 contains standard errors of estimated percentages, by size of base.

Table 6.-Standard errors of estimated percentage of beneficiaries

| Size of base (inflated) | Estimated percentage |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2 or 98 | 5 or 95 | 10 or 90 | 25 or 75 | 50 |
| 500 | 1.9 | 3.0 | 4.1 | 5.9 | 6.8 |
| 1,000 | 1.3 | 2.1 | 2.9 | 4.1 | 4.8 |
| 2,500 | . 8 | 1.3 | 1.8 | 2.6 | 3.0 |
| 5,000 | . 6 | . 9 | 1.3 | 1.8 | 2.1 |
| 10,000 | . 4 | . 6 | . 9 | 1.3 | 1.5 |
| 50,000 | . 2 | . 3 | . 4 | . 6 | . 7 |
| 100,000 | . 1 | . 2 | . 3 | . 4 | . 5 |
| 1,000,000 | (1) | . 1 | 1 | . 1 | . 2 |
| 5,000,000 | () | (1) | () | . 1 | . 1 |
| 10,000,000 | (1) | () | (1) | (1) | 1 |
| 50,000,000 | () | (') | () | () | () |

'Less than 0.05 percent.
case for government provision of Social Security, the paper also points out significant shortcomings in the current system and suggests several needed reforms.
"Intercohort and Intracohort Redistribution Under Old Age Insurance: The 1962-1972 Retirement Cohorts," Charles W. Meyer and Nancy L. Wolff, Public Finance Quarterly, July 1987, Vol. 15, No. 3, pages 259-281.

Although Social Security Old Age Insurance (OAI) is similar in some respects to a private annuity, benefits typically contain large intercohort and intracohort redistribution components. The former are declining over time but the latter are a permanent feature of the program. This study disentangles the actuarially fair and redistributive elements in OAI benefit payments to a sample of individuals from the 1962-1972 retirement cohorts. Incidence of benefits, actuarially fair annuity payments, and redistributive components across income groups are presented in tabular form. Regression analysis is used to estimate the relationship between redistribution components, as a percentage of benefits, and various characteristics of the retirement population.


[^0]:    *Prepared by Joseph Bondar, Division of Statistics Analysis, Office of Research and Statistics, Office of Policy, Social Security Administration. Earlier information on this program can be found in "Social Security Reneficiaries Enrolled in the Direct Deposit Program, December 1983," Social Security Bulletin, Vol. 47, No. 5, pages 17-22.

[^1]:    'Social Security Administration, Department of Health, Education, and Welfare, and Department of the Treasury, Report on the Method of Paying Social Security Beneficiaries by Credit to Accounts in Financial Organizations, November 1973.
    ${ }^{2}$ See Operations Planning and Research Staff, Department of the Treasury, Direct Deposit of Social Security Payments: A Bencficiary Survey, May 1979, and Office of Program Plamning and Policy, Social Security Administration, Department of Health, Education, and Welfare, Direct Deposit of Social Security Checks, Decomber 1978.

[^2]:    ${ }^{3}$ Louisiana, with a participation rate of 27 percent, was the only State with a participation rate of less than 30 perocnt.

[^3]:    ${ }_{2}^{1}$ Ranked by percentage of direct depositors.
    ${ }^{2}$ Includes American Samoa, Guam, the Virgin Islands, and

