

## APPENDIX C

In 1989 there were two Federal Register notices announcing wage-indexed amounts. The earlier of the two, published on October 31, 1989, announced the 4.7-percent cost-of-living benefit increase which became effective for December 1989. This notice also announced the average of the total wages for 1988 (used for wage indexing purposes) and all wage indexed OASDI program amounts for 1990. The more recent notice, published December 29, 1989, announced new values for the 1990 contribution and benefit base and the 1990 retirement test exempt amounts, as required by Public Law 101-239, the "Omnibus Budget Reconciliation Act of 1989". These new earnings base and exempt amounts supersede those published earlier. All other wage-indexed amounts for 1990, as published in the October 31 notice, were unaffected by the budget reconciliation legislation. Additional information on the effects of this legislation is available in section III of this report.

The two Federal Register notices described above are given next, in the order in which they were published.

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**DEPARTMENT OF HEALTH AND HUMAN SERVICES**
**Office of the Secretary****Social Security Administration****1990 Cost-of-Living Increase and Other Determinations**

**AGENCY:** Social Security Administration, HHS.

**ACTION:** Notice.

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**SUMMARY:** The Secretary has determined—(1) A 4.7 percent cost-of-living increase in benefits under title II (section 215(i)) of the Social Security Act (the Act);

(2) An increase in the Federal Supplemental Security Income (SSI) (title XVI) monthly benefit amounts for 1990 to \$386 for an eligible individual, \$579 for an eligible individual with an eligible spouse, and \$193 for an essential person (section 1617 of the Act);

(3) The average of the total wages for 1988 to be \$19,334.04;

(4) The Social Security contribution and benefit base to be \$50,400 for remuneration paid in 1990 and self-employment income earned in taxable years beginning in 1990;

(5) The amount of earnings a person must have to be credited with a quarter of coverage in 1990 to be \$520;

(6) The monthly exempt amounts under the Social Security retirement earnings test for taxable years ending in

calendar year 1990 to be \$780 for beneficiaries age 65 through 69 and \$570 for beneficiaries under age 65;

(7) The "old-law" contribution and benefit base to be \$37,500 for 1990.

We also describe the computation of benefits for a worker and the worker's family who first become eligible for benefits in 1990, and the computation of the old-age, survivors, and disability insurance (OASDI) fund ratio used to determine whether the automatic increase in benefits under title II of the Act is affected by the "stabilizer" provision.

Finally, we are publishing a table of OASDI "special minimum" benefit amounts. This table provides the range of primary insurance amounts and the corresponding maximum family benefits under the "special minimum" benefit provision, as revised to reflect the automatic benefit increase. These benefits are payable to certain individuals with long periods of relatively low earnings.

**FOR FURTHER INFORMATION CONTACT:** Jeffrey L. Kunkel, Office of the Actuary, Social Security Administration, 6401 Security Boulevard, Baltimore, MD 21235, (301) 965-3013.

**SUPPLEMENTARY INFORMATION:** The Secretary is required by the Act to publish within 45 days after the close of the third calendar quarter of 1989 the benefit increase percentage and the revised table of "special minimum"

benefits (section 215(i)(2)(D)). Also, the Secretary is required to publish before November 1 the average of the total wages for 1988 (section 215(i)(2)(C)(iii)) and the OASDI fund ratio for 1989 (section 215(i)(2)(C)(iii)). Finally, the Secretary is required to publish on or before November 1 the contribution and benefit base for 1990 (section 230(a)), the amount of earnings required to be credited with a quarter of coverage in 1990 (section 213(d)(2)), the monthly exempt amounts under the Social Security retirement earnings test for 1990 (section 203(f)(8)(A)), the formula for computing a primary insurance amount for workers who first become eligible for benefits or die in 1990 (section 215(a)(1)(D)), and the formula for computing the maximum amount of benefits payable to the family of a worker who first becomes eligible for old-age benefits or dies in 1990 (section 203(a)(2)(C)).

#### **Cost-of-Living Increases**

##### *General*

The cost-of-living increase is 4.7 percent for benefits under titles II and XVI of the Act.

Under title II, old-age, survivors, and disability insurance benefits will increase by 4.7 percent beginning with the December 1989 benefits, which are payable on January 3, 1990. The kinds of benefits payable to individuals entitled under this program are old-age, disability, wife's, husband's, child's, widow's, widower's, mother's, father's, and parent's insurance benefits. This increase is based on the authority contained in section 215(i) of the Act (42 U.S.C. 415(i)).

Under title XVI, Federal SSI payment levels will also increase by 4.7 percent effective for payments made for the month of January 1990 but paid on December 29, 1989. This is based on the authority contained in section 1617 of the Act (42 U.S.C. 1382f). The percentage increase effective January 1990 is the same as the title II benefit increase and the annual payment amount is rounded, when not a multiple of \$12, to the next lower multiple of \$12.

##### *Automatic Benefit Increase Computation*

Under section 215(i) of the Act, the third calendar quarter of 1989 is a cost-of-living computation quarter for all the purposes of the Act. The Secretary is therefore required to increase benefits, effective with December 1989, for individuals entitled under section 227 or 228 of the Act, to increase primary insurance amounts of all other individuals entitled under title II of the Act, and to increase maximum benefits payable to a family. For December 1989, the benefit increase is the percentage increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers from the third quarter of 1988 through the third quarter of 1989. Automatic benefit increases may be modified by a "stabilizer" provision under certain adverse financial conditions that are described in the section on the OASDI fund ratio. The December 1989 benefit increase is not affected by this provision.

Section 215(i)(1) of the Act provides that the Consumer Price Index for a cost-of-living computation quarter shall be the arithmetic mean of this index for the 3 months in that quarter. The Department of Labor's Consumer Price Index for Urban Wage Earners and Clerical Workers for each month in the quarter ending September 30, 1988, was: for July 1988, 117.2; for August 1988, 117.7; and for September 1988, 118.5. The arithmetic mean for this calendar quarter is 117.8 (after rounding to the nearest 0.1). The corresponding Consumer Price Index for each month in the quarter ending September 30, 1989, was: for July 1989, 123.2; for August 1989, 123.2; and for September 1989, 123.6. The arithmetic mean for this calendar quarter is 123.3. Thus, because the Consumer Price Index for the calendar quarter ending September 30, 1989, exceeds that for the calendar quarter ending September 30, 1988, by 4.7 percent, a cost-of-living benefit increase of 4.7 percent is effective for benefits under title II of the Act beginning December 1989.

### *Title II Benefit Amounts*

In accordance with section 215(i) of the Act, in the case of insured workers and family members for whom eligibility for benefits (i.e., the worker's attainment of age 62, or disability or death before age 62) occurred before 1990, benefits will increase 4.7 percent beginning with benefits for December 1989 which will be received January 3, 1990. In the case of first eligibility after 1989, the 4.7 percent increase will not apply.

For eligibility after 1978, benefits are generally determined by a benefit formula provided by the Social Security Amendments of 1977 (Pub. L. 95-216), as described later in this notice.

For eligibility before 1979, benefits are determined by means of a benefit table. In accordance with section 215(i)(4) of the Act, the primary insurance amounts and the maximum family benefits shown in this table are revised by (1) increasing by 4.7 percent the corresponding amounts established by the last cost-of-living increase and the last extension of the benefit table made under section 215(i)(4) (to reflect the increase in the contribution and benefit base for 1989); and (2) by extending the table to reflect the higher monthly wage and related benefit amounts now possible under the increased contribution and benefit base for 1990, as described later in this notice. A copy of this table may be obtained by writing to: Social Security Administration, Office of Public Affairs, Office of Public Inquiries, 4100 Annex, Baltimore, MD 21235.

Section 215(i)(2)(D) of the Act also requires that, when the Secretary determines an automatic increase in Social Security benefits, the Secretary shall publish in the **Federal Register** a revision of the range of the primary insurance amounts and corresponding maximum family benefits based on the dollar amount and other provisions described in section 215(a)(1)(C)(i). These benefits are referred to as "special minimum" benefits and are payable to certain individuals with long periods of relatively low earnings. In accordance with section 215(a)(1)(C)(i),

the attached table shows the revised range of primary insurance amounts and corresponding maximum family benefit amounts after the 4.7 percent benefit increase.

Section 227 of the Act provides flat-rate benefits to a worker who became age 72 before 1969 and was not insured under the usual requirements, and to his or her spouse or surviving spouse. Section 228 of the Act provides similar benefits at age 72 for certain uninsured persons. The current monthly benefit amount of \$151.90 for an individual under sections 227 and 228 of the Act is increased by 4.7 percent to obtain the new amount of \$159.00. The present monthly benefit amount of \$76.10 for a spouse under section 227 is increased by 4.7 percent to \$79.60.

### *Title XVI Benefit Amounts*

In accordance with section 1617 of the Act, Federal SSI benefit amounts for the aged, blind, and disabled are increased by 4.7 percent effective January 1990. Therefore, the yearly Federal SSI benefit amount of \$4,416 for an eligible individual, \$6,636 for an eligible individual with an eligible spouse, and \$2,208 for an essential person, which became effective January 1989, are increased, effective January 1990, to \$4,632, \$6,948, and \$2,316 respectively after rounding. The corresponding monthly amounts for 1990 are determined by dividing the yearly amounts by 12, giving \$386, \$579, and \$193, respectively. The monthly amount is reduced by subtracting monthly countable income. In the case of an eligible individual with an eligible spouse, the amount payable is further divided equally between the two spouses.

### **Average of the Total Wages for 1988**

The determination of the average wage figure for 1988 is based on the 1987 average wage figure of \$18,426.51 announced in the **Federal Register** on October 31, 1988 (53 FR 43932), along with the percentage increase in average wages from 1987 to 1988 measured by annual wage data tabulated by the

Social Security Administration (SSA). The average amounts of wages calculated directly from this data were \$17,416.59 and \$18,274.38 for 1987 and 1988, respectively. To determine an average wage figure for 1988 at a level that is consistent with the series of average wages for 1951 through 1977 (published December 29, 1978, at 43 FR 61016), we multiplied the 1987 average wage figure of \$18,426.51 by the percentage increase in average wages from 1987 to 1988 (based on SSA-tabulated wage data) as follows (with the result rounded to the nearest cent):  
 Average wage for 1988 = \$18,426.51 × \$18,274.38 ÷ \$17,416.59 = \$19,334.04. Therefore, the

average wage for 1988 is determined to be \$19,334.04.

#### **Contribution and Benefit Base**

##### *General*

The contribution and benefit base is \$50,400 for remuneration paid in 1990 and self-employment income earned in taxable years beginning in 1990.

The contribution and benefit base serves two purposes:

- (1) It is the maximum annual amount of earnings on which Social Security taxes are paid.
- (2) It is the maximum annual amount used in determining a person's Social Security benefits.

##### *Computation*

Section 230(c) of the Act provides a table with the contribution and benefit base for each year 1978, 1979, 1980, and 1981. For years after 1981, section 230(b) of the Act contains a formula for determining the contribution and benefit base. Under the prescribed formula, the contribution and benefit base for 1990 shall be equal to the 1989 base of \$48,000 multiplied by the ratio of (1) the average amount, per employee, of total wages for the calendar year 1988 to (2) the average amount of those wages for the calendar year 1987. Section 230(b) further provides that if the amount so determined is not a multiple of \$300, it shall be rounded to the nearest multiple of \$300.

#### *Average Wages*

The average wage for calendar year 1987 was previously determined to be \$18,426.51. The average wage for calendar year 1988 has been determined to be \$19,334.04 as stated herein.

#### *Amount*

The ratio of the average wage for 1988, \$19,334.04, compared to that for 1987, \$18,426.51, is 1.0492513. Multiplying the 1989 contribution and benefit base of \$48,000 by the ratio 1.0492513 produces the amount of \$50,364.06, which must then be rounded to \$50,400. Accordingly, the contribution and benefit base is determined to be \$50,400 for 1990.

#### **Quarter of Coverage Amount**

##### *General*

The 1990 amount of earnings required for a quarter of coverage is \$520. A quarter of coverage is the basic unit for determining whether a worker is insured under the Social Security program. For years before 1978, an individual generally was credited with a quarter of coverage for each quarter in which wages of \$50 or more were paid, or an individual was credited with 4 quarters of coverage for every taxable year in which \$400 or more of self-employment income was earned. Beginning in 1978, wages generally are no longer reported on a quarterly basis; instead, annual reports are made. With the change to annual reporting, section 352(b) of the Social Security Amendments of 1977 (Pub. L. 95-216) amended section 213(d) of the Act to provide that a quarter of coverage would be credited for each \$250 of an individual's total wages and self-employment income for calendar year 1978 (up to a maximum of 4 quarters of coverage for the year). Individuals generally must have self-employment income of at least \$400 in a taxable year in order to be credited with any quarters of coverage.

##### *Computation*

Under the prescribed formula, the quarter of coverage amount for 1990 shall be equal to the 1978 amount of

\$250 multiplied by the ratio of (1) the average amount, per employee, of total wages for calendar 1988 to (2) the average amount of those wages reported for calendar year 1978. The section further provides that if the amount so determined is not a multiple of \$10, it shall be rounded to the nearest multiple of \$10.

#### *Average Wages*

The average wage for calendar year 1976 was previously determined to be \$9,226.48. This was published in the *Federal Register* on December 29, 1978, at 43 FR 61016. The average wage for calendar year 1988 has been determined to be \$19,334.04 as stated herein.

#### *Quarter of Coverage Amount*

The ratio of the average wage for 1988, \$19,334.04, compared to that for 1976, \$9,226.48, is 2.0954947. Multiplying the 1978 quarter of coverage amount of \$250 by the ratio of 2.0954947 produces the amount of \$523.87, which must then be rounded to \$520. Accordingly, the quarter of coverage amount is determined to be \$520 for 1990.

#### **Retirement Earnings Test Exempt Amounts**

##### *(a) Beneficiaries Aged 70 or Over*

Beginning with months after December 1982, there is no limit on the amount an individual 70 or over may earn and still receive Social Security benefits.

##### *(b) Beneficiaries Aged 65 through 69*

The retirement earnings test monthly exempt amount for beneficiaries aged 65 through 69 is stated in the Act at section 203(f)(8)(D) for years 1978 through 1982. A formula is provided in section 203(f)(8)(B) for computing the exempt amount applicable for years after 1982. The monthly exempt amount for 1989 was determined by this formula to be \$740. Under the formula, the exempt amount for 1990 shall be the 1989 exempt amount multiplied by the ratio of (1) the average amount, per employee, of the total wages for calendar year 1988 to (2) the average amount of those

wages for calendar year 1987. The section further provides that if the amount so determined is not a multiple of \$10, it shall be rounded to the nearest multiple of \$10.

#### *Average Wages*

Average wages for this purpose are determined in the same way as for the contribution and benefit base. Therefore, the ratio of the average wages for 1988, \$19,334.04, compared to that for 1987, \$18,426.51, is 1.0492513.

#### *Exempt Amount for Beneficiaries Aged 65 through 69*

Multiplying the 1989 retirement earnings test monthly exempt amount of \$740 by the ratio of 1.0492513 produces the amount of \$776.45. This must then be rounded to \$780. The retirement earnings test monthly exempt amount for beneficiaries aged 65 through 69 is determined to be \$780 for 1990. The corresponding retirement earnings test annual exempt amount for these beneficiaries is \$9,360.

#### *(c) Beneficiaries Under Age 65*

Section 203 of the Act provides that beneficiaries under age 65 have a lower retirement earnings test monthly exempt amount than those beneficiaries aged 65 through 69. The exempt amount for beneficiaries under age 65 is determined by a formula provided in section 203(f)(8)(B) of the Act. Under the formula, the monthly exempt amount for beneficiaries under age 65 is \$540 for 1989. The formula provides that the exempt amount for 1990 shall be the 1989 exempt amount for beneficiaries under age 65 multiplied by the ratio of (1) the average amount, per employee, of the total wages for calendar year 1988 to (2) the average amount of those wages for calendar year 1987. The section further provides that if the amount so determined is not a multiple of \$10, it shall be rounded to the nearest multiple of \$10.

### Average Wages

Average wages for this purpose are determined in the same way as for the contribution and benefit base.

Therefore, the ratio of the average wages for 1988, \$19,334.04, compared to that of 1987, \$18,426.51, is 1.0492513.

#### Exempt Amount for Beneficiaries Under Age 65

Multiplying the 1989 retirement earnings test monthly exempt amount of \$540 by the ratio 1.0492513 produces the amount of \$566.60. This must then be rounded to \$570. The retirement earnings test monthly exempt amount for beneficiaries under age 65 is thus determined to be \$570 for 1990. The corresponding retirement earnings test annual exempt amount for these beneficiaries is \$6,840.

### Computing Benefits After 1978

#### General

The Social Security Amendments of 1977 provided a new method for determining an individual's primary insurance amount. This method uses a formula based on "wage indexing" and was fully explained with interim regulations and final regulations published in the *Federal Register* on December 29, 1978, at 43 FR 60877 and July 15, 1982, at 47 FR 30731 respectively. It generally applies when a worker after 1978 attains age 62, becomes disabled, or dies before age 62. The formula uses the worker's earnings after they have been adjusted, or "indexed," in proportion to the increases in average wages of all workers. Using this method, we determine the worker's "average indexed monthly earnings." We then compute the primary insurance amount, using the worker's average indexed monthly earnings. The computation formula is adjusted automatically each year to reflect changes in general wage levels.

#### Average Indexed Monthly Earnings

To assure that a worker's future benefits reflect the general rise in the standard of living that occurs during his

or her working lifetime, we adjust or "index" the worker's past earnings to take into account the change in general wage levels that has occurred during the worker's years of employment. These adjusted earnings are then used to compute the worker's primary insurance amount.

For example, to compute the average indexed monthly earnings for a worker attaining age 62, becoming disabled, or dying before attaining age 62, in 1990, we divide the average of the total wages for 1988, \$19,334.04, by the average of the total wages for each year prior to 1988 in which the worker had earnings. We then multiply the actual wages and self-employment income as defined in section 211(b) of the Act credited for each year by the corresponding ratio to obtain the worker's adjusted earnings for each year. After determining the number of years we must use to compute the primary insurance amount, we pick those years with highest indexed earnings, total those indexed earnings and divide by the total number of months in those years. This figure is rounded down to the next lower dollar amount, and becomes the average indexed monthly earnings figure to be used in computing the worker's primary insurance amount for 1990.

#### Computing the Primary Insurance Amount

The primary insurance amount is the sum of three separate percentages of portions of the average indexed monthly earnings. In 1979 (the first year the formula was in effect), these portions were the first \$180, the amount between \$180 and \$1,085, and the amount over \$1,085. The amounts for 1990 are obtained by multiplying the 1979 amounts by the ratio between the average of the total wages for 1988, \$19,334.04, and for 1977, \$9,779.44. These results were then rounded to the nearest dollar. For 1990, the ratio is 1.9770089. Multiplying the 1979 amounts of \$180 and \$1,085 by 1.9770089 produces the amounts of \$355.86 and \$2,145.05. These must then be rounded to \$356 and \$2,145. Accordingly, the portions of the average

indexed monthly earnings to be used in 1990 are determined to be the first \$356, the amount between \$356 and \$2,145, and the amount over \$2,145.

Consequently, for individuals who first become eligible for old-age insurance benefits or disability insurance benefits in 1990, or who die in 1990 before becoming eligible for benefits, we will compute their primary insurance amount by adding the following:

(a) 90 percent of the first \$356 of their average indexed monthly earnings, plus

(b) 32 percent of the average indexed monthly earnings over \$356 and through \$2,145, plus

(c) 15 percent of the average indexed monthly earnings over \$2,145.

This amount is then rounded to the next multiple of \$.10 if it is not already a multiple of \$.10. This formula and the adjustments we have described are contained in section 215(a) of the Act (42 U.S.C. 415(a)).

### Maximum Benefits Payable to a Family

#### General

The 1977 Amendments continued the long established policy of limiting the total monthly benefits which a worker's family may receive based on his or her primary insurance amount. Those amendments also continued the then existing relationship between maximum family benefits and primary insurance amounts but did change the method of computing the maximum amount of benefits which may be paid to a worker's family. The Social Security Disability Amendments of 1980 (Pub. L. 96-265) established a new formula for computing the maximum benefits payable to the family of a disabled worker. This new formula is applied to the family benefits of workers who first become entitled to disability insurance benefits after June 30, 1980, and who first become eligible for these benefits after 1978. The new formula was explained in a final rule published in the **FEDERAL REGISTER** on May 8, 1981, at 46 FR 25601. For disabled workers initially entitled to disability benefits before July

1980, or whose disability began before 1979, the family maximum payable is computed the same as the old-age and survivor family maximum.

#### *Computing the Old-Age and Survivor Family Maximum*

The formula used to compute the family maximum is similar to that used to compute the primary insurance amount. It involves computing the sum of four separate percentages of portions of the worker's primary insurance amount. In 1979, these portions were the first \$230, the amount between \$230 and \$332, the amount between \$332 and \$433, and the amount over \$433. The amounts for 1990 are obtained by multiplying the 1979 amounts by the ratio between the average of the total wages for 1988, \$19,334.04, and the average for 1977 \$9,779.44. This amount is then rounded to the nearest dollar. For 1990, the ratio is 1.9770089. Multiplying the amounts of \$230, \$332, and \$433 by 1.9770089 produces the amounts of \$454.71, \$656.37, and \$856.04. These amounts are then rounded to \$455, \$656, and \$856. Accordingly, the portions of the primary insurance amounts to be used in 1990 are determined to be the first \$455, the amount between \$455 and \$656, the amount between \$656 and \$856, and the amount over \$856.

Consequently, for the family of a worker who becomes age 62 or dies in 1990, the total amount of benefits payable to them will be computed so that it does not exceed:

(a) 150 percent of the first \$455 of the worker's primary insurance amount, plus

(b) 272 percent of the worker's primary insurance amount over \$455 through \$656, plus

(c) 134 percent of the worker's primary insurance amount over \$656 through \$856, plus

(d) 175 percent of the worker's primary insurance amount over \$856.

This amount is then rounded to the next lower multiple of \$.10 if it is not already a multiple of \$.10. This formula

and the adjustments we have described are contained in section 203(a) of the Act (42 U.S.C. 403(a)).

### **"Old-Law" Contribution and Benefit Base**

#### *General*

The 1990 "old-law" contribution and benefit base is \$37,500. This is the base that would have been effective under the Act without the enactment of the 1977 amendments. The base is computed under section 230(b) of the Act as it read prior to the 1977 amendments.

The "old-law" contribution and benefit base is used by:

(1) the Railroad Retirement program to determine certain tax liabilities and tier II benefits payable under that program to supplement the tier I payments which correspond to basic Social Security benefits,

(2) the Pension Benefit Guaranty Corporation to determine the maximum amount of pension guaranteed under the Employee Retirement Income Security Act (as stated in section 230(d) of the Act), and

(3) Social Security to determine a "year of coverage" in computing the "special minimum" benefit and in computing benefits for persons who are also eligible to receive pensions based on employment not covered under section 210 of the Act.

#### *Computation*

The base is computed using the automatic adjustment formula in section 230(b) of the Act as it read prior to the enactment of the 1977 amendments. Under the formula, the "old-law" contribution and benefit base shall be the "old-law" 1989 base multiplied by the ratio of (1) the average amount, per employee, of total wages for the calendar year of 1988 to (2) the average amount of those wages for the calendar year of 1987. If the amount so determined is not a multiple of \$300, it shall be rounded to the nearest multiple of \$300.

### *Average Wages*

The average wage for calendar year 1987 was previously determined to be \$18,426.51. The average wage for calendar year 1988 has been determined to be \$19,334.04, as stated herein.

#### *Amount*

The ratio of the average wage for 1988, \$19,334.04, compared to that for 1987, \$18,426.51, is 1.0492513. Multiplying the 1989 "old-law" contribution and benefit base amount of \$35,700 by the ratio of 1.0492513 produces the amount of \$37,458.27 which must then be rounded to \$37,500. Accordingly, the "old-law" contribution and benefit base is determined to be \$37,500 for 1990.

### **OASDI Fund Ratio**

#### *General*

Section 215(i) of the Act was amended by section 112 of Public Law 98-21, the Social Security Amendments of 1983, to include a "stabilizer" provision that can limit the automatic OASDI benefit increase under certain circumstances. If the combined assets of the OASI and DI Trust Funds, as a percentage of annual expenditures, are below a specified level, the automatic benefit increase is equal to the lesser of (1) the increase in average wages or (2) the increase in prices. The threshold level specified for the OASDI fund ratio is 20.0 percent for benefit increases for December of 1989 and later. The amendments also provide for subsequent "catch-up" benefit increases for beneficiaries whose previous benefit increases were affected by this provision. "Catch-up" benefit increases occur only when trust fund assets exceed 32.0 percent of annual expenditures.

#### *Computation*

Section 215(i) specifies the computation and application of the OASDI fund ratio. The OASDI fund ratio for 1989 is the ratio of (1) the combined assets of the OASI and DI Trust Funds at the beginning of 1989, including advance tax transfers for



January 1989, to (2) the estimated expenditures of the OASI and DI Trust Funds during 1989, excluding transfer payments between the OASI and DI Trust Funds, and reducing any transfers to the Railroad Retirement Account by any transfers from that account into either trust fund.

*Ratio*

The combined assets of the OASI and DI Trust Funds at the beginning of 1989 (including advance tax transfers for January 1989) equaled \$134,428 million, and the expenditures are estimated to be \$235,674 million. Thus, the OASDI fund ratio for 1989 is 57.0 percent, which exceeds the applicable threshold of 20.0 percent. As a result, the "stabilizer" provision does not affect the benefit increase for December 1989.

(Catalog of Federal Domestic Assistance Programs Nos. 13.802-13.805, and 13.807 Social Security Programs.)

Dated: October 26, 1989.

**Louis W. Sullivan,**

*Secretary of Health and Human Services.*

**SPECIAL MINIMUM PRIMARY  
INSURANCE AMOUNTS AND  
MAXIMUM FAMILY BENEFITS**

Primary insurance amount payable for Dec. 1988	No. of years required minimum earnings level	Primary insurance amount payable for Dec. 1989	Maximum family benefit payable for Dec. 1989
\$21.00 .....	11	\$21.90	\$33.00
41.70 .....	12	43.60	65.70
62.70 .....	13	65.60	98.70
83.50 .....	14	87.40	131.30
104.40 .....	15	109.30	164.00
125.40 .....	16	131.20	197.20
146.30 .....	17	153.10	229.90
167.20 .....	18	175.00	262.70
188.10 .....	19	196.90	295.50
208.80 .....	20	218.60	328.20
230.00 .....	21	240.80	361.30
250.80 .....	22	262.50	394.00
271.90 .....	23	284.60	427.30
292.70 .....	24	306.40	460.00
313.50 .....	25	328.20	492.50
334.60 .....	26	350.30	525.90
355.50 .....	27	372.20	558.60
376.30 .....	28	393.90	591.20
397.10 .....	29	415.70	624.20
418.00 .....	30	437.60	656.80

This material was published in the Federal Register on October 31, 1989, at 54 FR 45801.

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**DEPARTMENT OF HEALTH AND  
HUMAN SERVICES**

**Office of the Secretary**

**Revised Determination of 1990  
Contribution and Benefit Bases**

**AGENCY:** Social Security Administration,  
HHS.

**ACTION:** Notice.

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**SUMMARY:** The Secretary has determined—

(1) The Social Security contribution and benefit base to be \$51,300 for remuneration paid in 1990 and self-employment income earned in taxable years beginning in 1990;

(2) The "old-law" contribution and benefit base to be \$38,100 for 1990.

The above determinations are in accordance with the requirements of section 10208 of Public Law 101 239 and supersede those announced in the *Federal Register* on October 31, 1989 (54 FR 45801).

**FOR FURTHER INFORMATION CONTACT:**  
Jeffrey L. Kunkel, Office of the Actuary,  
Social Security Administration, 6401  
Security Boulevard, Baltimore, MD  
21235, (301) 965-3013.

**SUPPLEMENTARY INFORMATION:**  
Section 230(c) of the Social Security Act (the Act) provides a table with the contribution and benefit base for each year 1978, 1979, 1980, and 1981. For years after 1981, section 230(b) of the Act contains a formula for determining the contribution and benefit base. This formula uses the increase (if any) in the average of the total wages as the basis for determining the new contribution and benefit base. The average of the total wages is also used to index other program amounts, such as the earnings required for a quarter of coverage.

Under current regulations, the average of the total wages is calculated from individuals' wages subject to income tax, as reported on W-2 forms filed by employers. Contributions to certain qualified cash or deferred arrangements are not subject to income tax (but distributions from such arrangements may be taxable). Such contributions are

known as deferred compensation amounts and have been treated as wages subject to Social Security taxes since 1984.

Because the deferred compensation amounts are not subject to income taxes, the data used to calculate the average of the total wages understate wages by such amounts. As a result, the annual adjustments in all the wage-indexed program amounts have not reflected the effects that year-to-year changes in deferred compensation amounts have on the average of the total wages. Section 10208 of Public Law 101-239, enacted December 19, 1989, provides for the inclusion of deferred compensation amounts in the determination of the average of the total wages. This permits the effects of year-to-year changes in deferred compensation amounts on the annual increases in the average of the total wages to be reflected in future adjustments of wage-indexed program amounts. These effects will begin with changes in such program amounts from calendar year 1992 to calendar year 1993.

Section 10208 of Public Law 101-239 also provides a transitional rule for computing the average of the total wages used in the formula for determining the contribution and benefit base and the "old-law" contribution and benefit base. The transitional rule is used to determine the bases for 1990, and will be used to determine the bases for 1991 and 1992.

Under the transitional rule, the contribution and benefit base for 1990 will reflect the effect of an additional increase of 2 percentage points in average wages, over and above the previously determined average-wage increase announced earlier this year. This additional increase results in the newly determined contribution and benefit base of \$51,300 for 1990.

The transitional rule for 1991 and 1992 provides a smooth transition to the revised measure of the average of the total wages, which takes account of the deferred compensation amounts.

As a result of section 10208 of Public Law 101-239, both the contribution and benefit base and the "old-law" contribution and benefit base for 1990, as published in the **Federal Register** on October 31, 1989, have been superseded, and are revised as shown below.

#### **Average of the Total Wages Under the Transitional Rule**

##### *General*

For purposes of determining the 1990 contribution and benefit base and the 1990 "old-law" contribution and benefit base, the new statute provides a deemed average of the total wages for 1988.

##### *Computation*

The average of the total wages for 1988 is deemed to be equal to the amount announced in the **Federal Register** on October 31, 1989, plus 2 percent of the average wage amount announced for 1987, as provided by the statute under the transitional rule.

##### *Amount*

The average wage amount announced for 1988 in the **Federal Register** on October 31, 1989 (54 FR 45801) was \$19,334.04. The average wage amount announced for 1987 in the **Federal Register** on October 31, 1988 (53 FR 43932) was \$18,426.51. Two percent of \$18,426.51 is \$368.53, and the sum of this amount and \$19,334.04 is \$19,702.57. Therefore, the deemed average wage for 1988 for the purposes described above is \$19,702.57.

#### **Contribution and Benefit Base**

##### *General*

The contribution and benefit base is \$51,300 for remuneration paid in 1990 and self-employment income earned in taxable years beginning in 1990.

The contribution and benefit base serves two purposes:

(1) It is the maximum annual amount of earnings on which Social Security taxes are paid.

(2) It is the maximum annual amount used in determining a person's Social Security benefits.

##### *Computation*

Section 230(c) of the Act provides a table with the contribution and benefit base for each year 1978, 1979, 1980, and 1981. For years after 1981, section 230(b) of the Act contains a formula for determining the contribution and benefit base. Under the prescribed formula as modified by Public Law 101-239, the contribution and benefit base for 1990 shall be equal to the 1989 base of \$48,000 multiplied by the ratio of (1) the deemed average amount, per employee, of total wages for the calendar year 1988 to (2) the average amount of total wages for the calendar year 1987. Section 230(b) further provides that if the amount so determined is not a multiple of \$300, it shall be rounded to the nearest multiple of \$300.

##### *Average Wages*

The average wage for calendar year 1987 was previously determined to be \$18,426.51. The deemed average wage for calendar year 1988 has been determined to be \$19,702.57 as stated herein.

##### *Amount*

The ratio of the deemed average wage for 1988, \$19,702.57, compared to that for 1987, \$18,426.51, is 1.0692513. Multiplying the 1989 contribution and benefit base of \$48,000 by the ratio 1.0692513 produces the amount of \$51,324.06, which must then be rounded to \$51,300. Accordingly, the contribution and benefit base is determined to be \$51,300 for 1990.

#### **"Old-Law" Contribution and Benefit Base**

##### *General*

The 1990 "old-law" contribution and benefit base is \$38,100. This is the base that would have been effective under the Act without the enactment of the 1977 amendments. The base is computed under section 230(b) of the Act as it read prior to the 1977 amendments, and as it has been modified by Public Law 101-239.

The "old-law" contribution and benefit base is used by:

(1) The Railroad Retirement program to determine certain tax liabilities and tier II benefits payable under that program to supplement the tier I payments which correspond to basic Social Security benefits,

(2) The Pension Benefit Guaranty Corporation to determine the maximum amount of pension guaranteed under the Employee Retirement Income Security Act (as stated in section 230(d) of the Act), and

(3) Social Security to determine a "year of coverage" in computing the "special minimum" benefit and in computing benefits for persons who are also eligible to receive pensions based on employment not covered under section 210 of the Act.

#### *Computation*

The base is computed using the automatic adjustment formula in section 230(b) of the Act as it read prior to the enactment of the 1977 amendments. Under the formula as modified by Public Law 101-239, the "old-law" contribution and benefit base shall be the "old-law" 1989 base multiplied by the ratio of (1) the deemed average amount, per employee, of total wages for the calendar year of 1988 to (2) the average amount of total wages for the calendar year of 1987. If the amount so

determined is not a multiple of \$300, it shall be rounded to the nearest multiple of \$300.

#### *Average Wages*

The average wage for calendar year 1987 was previously determined to be \$18,426.51. The deemed average wage for calendar year 1988 has been determined to be \$19,702.57 as stated herein.

#### *Amount*

The ratio of the deemed average wage for 1988, \$19,702.57, compared to that for 1987, \$18,426.51, is 1.0692513. Multiplying the 1989 "old-law" contribution and benefit base amount of \$35,700 by the ratio of 1.0692513 produces the amount

of \$38,172.27 which must then be rounded to \$38,100. Accordingly, the "old-law" contribution and benefit base is determined to be \$38,100 for 1990.

(Catalog of Federal Domestic Assistance Programs Nos. 13.802 Social Security—Disability Insurance; 13.803 Social Security—Retirement Insurance; 13.805 Social Security—Survivor's Insurance.)

Dated: December 22, 1989.

**Louis W. Sullivan,**

*Secretary of Health and Human Services.*

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**APPENDIX D.—AUTOMATIC ADJUSTMENTS UNDER OLD-AGE,  
SURVIVORS, AND DISABILITY INSURANCE**

The Social Security Act specifies that certain program amounts affecting the determination of OASDI benefits are to be adjusted annually, in general, to reflect changes in the economy. The law prescribes specific formulas which, when applied to reported statistics, produce "automatic" revisions in these program amounts and hence in the benefit-computation procedures.

In this appendix, values are shown for the program amounts which are subject to automatic adjustment, from the time that such adjustments became effective through 1990. Projected values for future years through 1995, based on the two intermediate sets of assumptions (alternatives II-A and II-B), are also shown. Many of these assumptions are described in the subsection of this report entitled "Economic and Demographic Assumptions" and are shown in tables 10 and 11. The subsection entitled "Automatic Adjustments," and Appendix C, provide a more complete description of the program amounts affected by the automatic-adjustment procedures.

Under section 215(b)(3) of the Social Security Act, the average amount of total wages for each year after 1950 is used to index the earnings of most workers first becoming eligible for benefits in 1979 or later. This procedure converts a worker's past earnings to approximately their equivalent values near the time of the worker's retirement or other eligibility, and these values are used to calculate the worker's Average Indexed Monthly Earnings (AIME). The average amount of total wages for each year is also used to adjust most of the program amounts that are subject to the automatic-adjustment provisions. A copy of the notice announcing the average wage for 1988, including a brief description of its derivation, is shown in Appendix C. Table D1 shows the average amount of total wages as announced for each year 1951 through 1988.

TABLE D1.—AVERAGE AMOUNT OF TOTAL WAGES, CALENDAR YEARS 1951-88

Year	Amount	Year	Amount	Year	Amount
1951.....	\$2,799.16	1966.....	\$4,938.36	1981.....	\$13,773.10
1952.....	2,973.32	1967.....	5,213.44	1982.....	14,531.34
1953.....	3,139.44	1968.....	5,571.76	1983.....	15,239.24
1954.....	3,155.64	1969.....	5,893.76	1984.....	16,135.07
1955.....	3,301.44	1970.....	6,186.24	1985.....	16,822.51
1956.....	3,532.36	1971.....	6,497.08	1986.....	17,321.82
1957.....	3,641.72	1972.....	7,133.80	1987.....	18,426.51
1958.....	3,673.80	1973.....	7,580.16	1988.....	19,334.04
1959.....	3,855.80	1974.....	8,030.76		
1960.....	4,007.12	1975.....	8,630.92		
1961.....	4,086.76	1976.....	9,226.48		
1962.....	4,291.40	1977.....	9,779.44		
1963.....	4,396.64	1978.....	10,556.03		
1964.....	4,576.32	1979.....	11,479.46		
1965.....	4,658.72	1980.....	12,513.46		

Table D2 shows the estimated average amount of total wages for each year 1989 through 1995, based on the four alternative sets of assumptions.

TABLE D2.—ESTIMATED AVERAGE AMOUNT OF TOTAL WAGES BY ALTERNATIVE,  
CALENDAR YEARS 1989-95

Calendar year	I	II-A	II-B	III
1989.....	\$20,526.50	\$20,492.62	\$20,496.71	\$20,409.69
1990.....	21,645.13	21,604.63	21,597.42	21,116.03
1991.....	22,829.22	22,845.68	22,761.83	22,044.46
1992.....	24,017.31	24,101.63	23,992.37	23,443.85
1993.....	25,184.86	25,376.43	25,268.54	24,777.63
1994.....	26,335.71	26,661.04	26,641.06	25,887.93
1995.....	27,482.12	27,951.34	28,065.03	27,606.47

The provisions for automatic cost-of-living increases in OASDI benefits were originally enacted in 1972 and first became effective with the benefit increase effective for June 1975. The determination of the benefit increase effective for December 1989 is shown in Appendix C. Table D3 shows the automatic benefit increases determined for each year 1975-89, and the benefit increases for each year 1990-95, on the basis of the two intermediate sets of assumptions.

The law provides for an automatic increase in the contribution and benefit base for the year following a year in which an automatic benefit increase became effective. The base for 1975 was the first one determined on this basis. (Amendments enacted in December 1973 provided that the 11-percent general benefit increase that became effective in 1974 would be considered an automatic cost-of-living benefit increase for purposes of the automatic-adjustment provisions.) The bases for 1979-81 were specified by the 1977 amendments at levels above those which were expected to occur under the automatic-adjustment provisions (and which, in fact, as the experience developed, were above such levels). Starting again in 1982, the bases have been determined automatically on the basis of increases in average wages. The base for 1990 that was originally published in the Federal Register (see the first such notice in Appendix C) was later revised to comply with the "Omnibus Budget Reconciliation Act of 1989". As explained in the second Federal Register notice given in Appendix C, the method used to determine the 1990 base was revised to reflect wages paid into certain deferred compensation plans. Table D3 shows actual past and projected future amounts for the contribution and benefit base.

The law provides for the determination of the contribution and benefit bases that would have been in effect in each year after 1978 under the automatic-adjustment provisions as in effect before the enactment of the 1977 amendments. (The determination of the "old-law" base for 1990 was modified in the same way as the current-law base for 1990, as described above and in Appendix C.) This old-law base is used in determining special-minimum benefits for certain workers who have many years of low earnings in covered employment. Beginning in 1986, the old-law base is also used in the calculation of OASDI benefits for certain workers who are eligible to receive pensions based on noncovered employment. In addition, it is used for certain purposes under the Railroad Retirement program and the Employee Retirement Income Security Act of 1974. Table D3 shows the old-law bases for 1979-90, together with estimated amounts for 1991-95 on the basis of the two intermediate sets of assumptions.

The 1972 amendments specified that the amount of earnings exempted from the withholding of benefits under the retirement earnings test would increase automatically in the year following a year in which an automatic cost-of-living benefit increase became effective. The 1977 amendments modified this procedure by establishing two different exempt amounts—one for those under age 65 and another for those aged 65 and over. The former amounts continued to increase automatically, while the latter amounts were specified for 1978-82, after which they again increase automatically. The exempt amounts are shown in table D3 for 1975-95.

The 1977 amendments specified the amount of earnings required in 1978 to be credited with a “quarter of coverage” and provided for automatic adjustment of this amount for future years. Table D3 shows the amounts for 1978-95.

The 1977 amendments substantially revised the method of computing benefits for most workers first becoming eligible for benefits in 1979 and later. The formula used to compute the Primary Insurance Amount (PIA) for workers who first become eligible for benefits, or who died before becoming eligible, in 1979 is:

90 percent of the first \$180 of AIME, plus  
 32 percent of AIME in excess of \$180  
 but not in excess of \$1,085, plus  
 15 percent of AIME in excess of \$1,085.

The amounts separating the individual’s AIME into intervals—the “bend points”—are adjusted automatically by the changes in average wages as specified in section 215(a)(1)(B) of the Social Security Act. (A regular-minimum benefit of \$122 and a special-minimum benefit varying by “years of coverage” are also provided, although for most workers first becoming eligible for benefits in 1982 and later, the regular-minimum benefit of \$122 has been eliminated.) The bend points for 1979-90, and the values projected for 1991-95, are shown in table D3.

A similar formula is used to compute the maximum total amount of monthly benefits payable on the basis of the earnings of a retired or deceased individual. This formula is a function of the individual’s PIA, and is shown below for workers who first became eligible for benefits, or who died before becoming eligible, in 1979:

150 percent of the first \$230 of PIA, plus  
 272 percent of the PIA in excess of \$230  
 but not in excess of \$332, plus  
 134 percent of the PIA in excess of \$332  
 but not in excess of \$433, plus  
 175 percent of the PIA in excess of \$433.

These PIA-interval bend points are adjusted automatically in accordance with section 203(a)(2) of the Act. The maximum-family-benefit bend points for 1979-95 are shown in table D3.

TABLE D3.—OASDI PROGRAM AMOUNTS DETERMINED UNDER THE AUTOMATIC-ADJUSTMENT PROVISIONS, CALENDAR YEARS 1975-90,  
AND PROJECTED FUTURE AMOUNTS, CALENDAR YEARS 1991-95, ON THE BASIS OF THE INTERMEDIATE SETS OF ASSUMPTIONS

Calendar year	Benefit increase <sup>1</sup> (percent)	Contribution and benefit base <sup>2</sup>	"Old law" contribution and benefit base <sup>3</sup>	Retirement earnings test exempt amount		Amount of earnings required for quarter of coverage <sup>5</sup>	AIME "bend points" in PIA formula		PIA "bend points" in maximum-family-benefit formula		
				Under age 65	Ages 65 and over <sup>4</sup>		First	Second	First	Second	Third
<b>Actual experience:</b>											
1975	8.0	\$14,100	( <sup>6</sup> )	\$2,520	\$2,520	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )
1976	6.4	15,300	( <sup>6</sup> )	2,760	2,760	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )
1977	5.9	16,500	( <sup>6</sup> )	3,000	3,000	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )
1978	6.5	17,700	( <sup>6</sup> )	3,240	4,000	\$250	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )
1979	9.9	\$22,900	\$18,900	3,480	\$4,500	260	\$180	\$1,085	\$230	\$332	\$433
1980	14.3	\$25,900	20,400	3,720	\$5,000	290	194	1,171	248	358	467
1981	11.2	\$29,700	22,200	4,080	\$5,500	310	211	1,274	270	390	508
1982	7.4	32,400	24,300	4,440	\$6,000	340	230	1,388	294	425	554
1983	3.5	35,700	26,700	4,920	6,600	370	254	1,528	324	468	610
1984	3.5	37,800	28,200	5,160	6,960	390	267	1,612	342	493	643
1985	3.1	39,600	29,700	5,400	7,320	410	280	1,691	358	517	675
1986	1.3	42,000	31,500	5,760	7,800	440	297	1,790	379	548	714
1987	4.2	43,800	32,700	6,000	8,160	460	310	1,866	396	571	745
1988	4.0	45,000	33,600	6,120	8,400	470	319	1,922	407	588	767
1989	4.7	48,000	35,700	6,480	8,880	500	339	2,044	433	626	816
1990	( <sup>7</sup> )	51,300	38,100	6,840	9,360	520	356	2,145	455	656	856
<b>Alternative II-A:</b>											
1991	4.1	54,300	40,500	7,200	9,960	560	377	2,274	482	696	907
1992	3.8	57,300	42,600	7,560	10,560	590	398	2,397	508	733	957
1993	3.6	60,600	45,000	8,040	11,160	620	420	2,535	537	776	1,012
1994	3.3	63,900	47,400	8,520	11,760	650	444	2,674	567	818	1,067
1995	3.0	67,200	49,800	9,000	12,360	690	467	2,815	597	861	1,124
<b>Alternative II-B:</b>											
1991	4.5	54,300	40,500	7,200	9,960	560	377	2,274	482	696	908
1992	4.4	57,300	42,600	7,560	10,440	590	398	2,396	508	733	956
1993	4.3	60,300	45,000	7,920	11,040	620	419	2,525	535	773	1,008
1994	4.2	63,600	47,400	8,400	11,640	650	442	2,662	564	815	1,062
1995	4.0	66,900	49,800	8,880	12,240	680	465	2,803	594	858	1,119

<sup>1</sup>Effective with benefits payable for June in each year 1975-82, and for December in each year after 1982.

<sup>2</sup>The bases for years after 1989 were increased slightly through the effect of a new procedure to determine the base, as required by Public Law 101-239.

<sup>3</sup>Contribution and benefit base that would have been determined automatically under the law in effect prior to enactment of the Social Security Amendments of 1977. The bases for years after 1989 were increased slightly through the effect of a new procedure to determine the base, as required by Public Law 101-239.

<sup>4</sup>In 1955-82, retirement earnings test did not apply at ages 72 and over; beginning in 1983, it does not apply at ages 70 and over.

<sup>5</sup>See Appendix C for a description of quarter-of-coverage requirements prior to 1978.

<sup>6</sup>No provision in law for this amount in this year.

<sup>7</sup>Amount not subject to automatic-adjustment provisions in this year.

<sup>8</sup>Amount specified by Social Security Amendments of 1977.

<sup>9</sup>Amount specified for first year by Social Security Amendments of 1977 amounts for subsequent years subject to automatic-adjustment provisions.

<sup>10</sup>Actual benefit increase for December 1990 has not been determined. Estimates of that increase, based on alternatives II-A and II-B, are 4.0 percent and 4.5 percent, respectively.



**APPENDIX E.—ACTUARIAL ESTIMATES FOR THE OASDI AND HI PROGRAMS,  
COMBINED**

In this appendix, long-range actuarial estimates for the OASDI and HI (Hospital Insurance) programs are combined to facilitate analysis of the adequacy of the combined income and assets of these three trust funds relative to their combined expenditures. Long-range estimates are subject to much uncertainty and should not be considered precise forecasts. Instead they should be considered as indicative of the general trend and range of costs that could reasonably be expected to occur.

As with the OASI and DI Trust Funds, income to the HI Trust Fund comes primarily from contributions paid by employees, employers, and self-employed persons. Contribution rates for the OASDI and HI programs are summarized in table E1 for 1966 and later. The combined OASDI and HI contribution rate for employees and their employers is often referred to as the FICA tax, because it is authorized by the Federal Insurance Contributions Act.

TABLE E1.— CONTRIBUTION RATES FOR THE OASDI AND HI PROGRAMS  
(In percent)

Calendar years	Employees and employers, each			Self-employed		
	OASDI	HI	Total	OASDI	HI	Total
1966 .....	3.85	0.35	4.20	5.80	0.35	6.15
1967 .....	3.90	.50	4.40	5.90	.50	6.40
1968 .....	3.80	.60	4.40	5.80	.60	6.40
1969-70 .....	4.20	.60	4.80	6.30	.60	6.90
1971-72 .....	4.60	.60	5.20	6.90	.60	7.50
1973 .....	4.85	1.00	5.85	7.00	1.00	8.00
1974-77 .....	4.95	.90	5.85	7.00	.90	7.90
1978 .....	5.05	1.00	6.05	7.10	1.00	8.10
1979-80 .....	5.08	1.05	6.13	7.05	1.05	8.10
1981 .....	5.35	1.30	6.65	8.00	1.30	9.30
1982-83 .....	5.40	1.30	6.70	8.05	1.30	9.35
1984 .....	5.70	1.30	7.00	11.40	2.60	14.00
1985 .....	5.70	1.35	7.05	11.40	2.70	14.10
1986-87 .....	5.70	1.45	7.15	11.40	2.90	14.30
1988-89 <sup>1</sup> .....	6.06	1.45	7.51	12.12	2.90	15.02
1990 and later .....	6.20	1.45	7.65	12.40	2.90	15.30

<sup>1</sup>See section entitled "Basis for Trust Fund Receipts and Expenditures" for description of tax credits allowed against the combined OASDI and HI taxes on net earnings from self-employment in 1984-89.

The Social Security Act authorized borrowing among the OASI, DI, and HI Trust Funds through the end of 1987. Loans could not be made from a trust fund if its assets were below specified levels, with minimum standards specified for the repayment of interfund loans (including a requirement for the complete repayment of all such loans before 1990). Estimates shown in this appendix for the combined trust funds are theoretical because, under present law, no authority exists for transferring assets from one trust fund to another. The emphasis in this appendix on combined operations should not obscure the financial status of the individual trust funds.

Table E2 shows estimated income rates and cost rates for the OASDI program, the HI program, and the combined OASDI and HI programs for the long-range projection period, based on the four sets of assumptions I, II-A, II-B, and III described earlier in this report. Income rates exclude interest earned on trust-fund assets. Cost rates shown for HI exclude the cost of maintaining the trust fund at a level suitable for a contingency reserve. Table E2 also shows the excess of income rates over cost rates, called balances.

Under all four sets of assumptions, combined OASDI and HI cost rates are projected to rise above current levels, with the sharpest increase occurring during

the period 2010-2030. Under the pessimistic set of assumptions, annual deficits are projected to occur before the turn of the century, and to continue throughout the 75-year projection period. Cost rates are projected to rise to over three times their current level by the year 2060. Under intermediate assumptions, annual deficits begin to occur in the second decade of the next century, with cost rates nearly doubling by the year 2060. Under optimistic assumptions, cost rates are projected to increase by about one-quarter, with annual deficits occurring beginning in 2025.

TABLE E2.—COMPARISON OF ESTIMATED INCOME RATES AND COST RATES<sup>1</sup> FOR OASDI AND HI BY ALTERNATIVE, CALENDAR YEARS 1990-2060  
(As a percentage of taxable payroll<sup>2</sup>)

Calendar year	OASDI			HI			TOTAL		
	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance
<b>Alternative I:</b>									
1990	12.58	10.52	2.06	2.90	2.54	0.36	15.48	13.06	2.42
1991	12.59	10.38	2.22	2.90	2.60	.30	15.49	12.97	2.52
1992	12.60	10.21	2.39	2.90	2.65	.25	15.50	12.86	2.64
1993	12.60	10.05	2.55	2.90	2.71	.19	15.50	12.76	2.74
1994	12.60	9.88	2.72	2.90	2.77	.13	15.50	12.65	2.85
1995	12.60	9.72	2.88	2.90	2.83	.07	15.50	12.55	2.95
1996	12.60	9.58	3.03	2.90	2.88	.02	15.50	12.46	3.04
1997	12.60	9.44	3.16	2.90	2.93	-.03	15.50	12.37	3.13
1998	12.60	9.32	3.28	2.90	2.97	-.07	15.50	12.30	3.20
1999	12.60	9.22	3.38	2.90	3.02	-.12	15.50	12.24	3.26
2000	12.61	9.16	3.45	2.90	3.06	-.16	15.51	12.22	3.29
2005	12.68	9.00	3.67	2.90	3.13	-.23	15.58	12.13	3.44
2010	12.74	9.36	3.38	2.90	3.26	-.36	15.64	12.62	3.02
2015	12.80	10.29	2.50	2.90	3.48	-.59	15.70	13.78	1.92
2020	12.87	11.53	1.34	2.90	3.60	-.70	15.77	15.13	.64
2025	12.92	12.53	.40	2.90	3.81	-.91	15.82	16.34	-.51
2030	12.96	12.97	-.01	2.90	3.99	-1.09	15.86	16.96	-1.11
2035	12.96	12.85	.11	2.90	4.12	-1.22	15.86	16.97	-1.11
2040	12.95	12.42	.53	2.90	4.19	-1.29	15.85	16.61	-.76
2045	12.94	12.07	.87	2.90	4.25	-1.35	15.84	16.32	-.48
2050	12.94	11.91	1.03	2.90	4.30	-1.40	15.84	16.21	-.37
2055	12.94	11.86	1.08	2.90	4.36	-1.46	15.84	16.22	-.38
2060	12.94	11.79	1.15	2.90	4.42	-1.52	15.84	16.21	-.37
<b>Alternative II-A:</b>									
1990	12.59	10.57	2.03	2.90	2.56	.34	15.49	13.12	2.37
1991	12.60	10.51	2.09	2.90	2.65	.25	15.50	13.16	2.33
1992	12.60	10.47	2.13	2.90	2.74	.15	15.50	13.21	2.29
1993	12.61	10.42	2.19	2.90	2.84	.06	15.51	13.26	2.25
1994	12.61	10.36	2.25	2.90	2.94	-.05	15.51	13.31	2.20
1995	12.61	10.30	2.31	2.90	3.05	-.15	15.51	13.35	2.17
1996	12.61	10.22	2.40	2.90	3.15	-.25	15.51	13.37	2.15
1997	12.61	10.15	2.47	2.90	3.24	-.34	15.51	13.39	2.12
1998	12.62	10.09	2.53	2.90	3.34	-.44	15.52	13.43	2.09
1999	12.62	10.05	2.57	2.90	3.44	-.54	15.52	13.49	2.03
2000	12.63	10.04	2.59	2.90	3.51	-.61	15.53	13.55	1.98
2005	12.71	10.06	2.65	2.90	3.87	-.97	15.61	13.93	1.68
2010	12.79	10.57	2.22	2.90	4.35	-1.45	15.69	14.92	.77
2015	12.86	11.74	1.12	2.90	5.06	-2.16	15.76	16.80	-1.04
2020	12.95	13.31	-.36	2.90	5.71	-2.82	15.85	19.03	-3.18
2025	13.02	14.72	-1.69	2.90	6.47	-3.57	15.92	21.19	-5.27
2030	13.08	15.60	-2.52	2.90	7.13	-4.23	15.98	22.73	-6.76
2035	13.10	15.89	-2.79	2.90	7.54	-4.64	16.00	23.43	-7.43
2040	13.11	15.80	-2.69	2.90	7.74	-4.84	16.01	23.54	-7.53
2045	13.11	15.76	-2.65	2.90	7.86	-4.96	16.01	23.62	-7.61
2050	13.12	15.95	-2.83	2.90	7.95	-5.05	16.02	23.90	-7.88
2055	13.14	16.25	-3.11	2.90	8.06	-5.16	16.04	24.30	-8.26
2060	13.15	16.46	-3.31	2.90	8.18	-5.28	16.05	24.64	-8.59

TABLE E2.—COMPARISON OF ESTIMATED INCOME RATES AND COST RATES<sup>1</sup> FOR OASDI AND HI BY ALTERNATIVE, CALENDAR YEARS 1990-2060 (Cont.)  
[As a percentage of taxable payroll<sup>2</sup>]

Calendar year	OASDI			HI			TOTAL		
	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance
Alternative II-B:									
1990	12.61	10.60	2.01	2.90	2.56	0.34	15.51	13.16	2.35
1991	12.60	10.64	1.96	2.90	2.67	.22	15.50	13.32	2.18
1992	12.61	10.67	1.94	2.90	2.78	.12	15.51	13.44	2.06
1993	12.61	10.69	1.92	2.90	2.90	.00	15.51	13.59	1.93
1994	12.62	10.69	1.93	2.90	3.01	-.11	15.52	13.70	1.82
1995	12.62	10.67	1.95	2.90	3.13	-.23	15.52	13.80	1.72
1996	12.62	10.63	2.00	2.90	3.24	-.34	15.52	13.87	1.65
1997	12.62	10.59	2.03	2.90	3.35	-.45	15.52	13.94	1.58
1998	12.63	10.56	2.06	2.90	3.46	-.56	15.53	14.02	1.50
1999	12.63	10.54	2.09	2.90	3.58	-.68	15.53	14.12	1.41
2000	12.65	10.56	2.09	2.90	3.69	-.79	15.55	14.25	1.30
2005	12.74	10.59	2.14	2.90	4.12	-1.22	15.64	14.71	.92
2010	12.82	11.08	1.74	2.90	4.67	-1.78	15.72	15.75	-.03
2015	12.89	12.25	.64	2.90	5.47	-2.57	15.79	17.73	-1.94
2020	12.98	13.86	-.88	2.90	6.18	-3.28	15.88	20.04	-4.16
2025	13.06	15.33	-2.27	2.90	6.99	-4.09	15.96	22.32	-6.36
2030	13.12	16.28	-3.16	2.90	7.69	-4.79	16.02	23.97	-7.95
2035	13.14	16.62	-3.47	2.90	8.12	-5.22	16.04	24.73	-8.69
2040	13.15	16.55	-3.40	2.90	8.32	-5.42	16.05	24.87	-8.82
2045	13.15	16.52	-3.37	2.90	8.42	-5.52	16.05	24.94	-8.89
2050	13.16	16.70	-3.54	2.90	8.52	-5.62	16.06	25.22	-9.15
2055	13.18	17.00	-3.82	2.90	8.63	-5.73	16.08	25.62	-9.55
2060	13.19	17.23	-4.04	2.90	8.75	-5.85	16.09	25.98	-9.89
Alternative III:									
1990	12.63	10.85	1.78	2.90	2.61	.29	15.53	13.47	2.07
1991	12.61	11.29	1.32	2.90	2.80	.10	15.51	14.09	1.42
1992	12.62	11.32	1.30	2.90	2.94	-.04	15.52	14.26	1.25
1993	12.63	11.58	1.05	2.90	3.11	-.21	15.53	14.68	.85
1994	12.64	12.06	.58	2.90	3.33	-.43	15.54	15.38	.16
1995	12.65	12.01	.64	2.90	3.50	-.60	15.55	15.50	.05
1996	12.65	12.04	.62	2.90	3.69	-.79	15.55	15.72	-.17
1997	12.65	12.06	.59	2.90	3.88	-.98	15.55	15.93	-.38
1998	12.66	12.11	.55	2.90	4.07	-1.17	15.56	16.18	-.62
1999	12.66	12.18	.48	2.90	4.28	-1.38	15.56	16.46	-.90
2000	12.68	12.23	.46	2.90	4.52	-1.62	15.58	16.74	-1.16
2005	12.79	12.31	.48	2.90	5.51	-2.61	15.69	17.82	-2.13
2010	12.89	12.84	.05	2.90	6.85	-3.95	15.79	19.69	-3.90
2015	12.97	14.20	-1.23	2.90	8.81	-5.91	15.87	23.01	-7.14
2020	13.08	16.14	-3.07	2.90	10.86	-7.96	15.98	27.00	-11.02
2025	13.18	18.11	-4.93	2.90	13.15	-10.25	16.08	31.25	-15.17
2030	13.27	19.69	-6.42	2.90	15.12	-12.22	16.17	34.81	-18.64
2035	13.33	20.72	-7.39	2.90	16.39	-13.49	16.23	37.10	-20.87
2040	13.36	21.35	-7.99	2.90	16.88	-13.98	16.26	38.24	-21.97
2045	13.40	22.07	-8.67	2.90	17.10	-14.20	16.30	39.17	-22.87
2050	13.45	23.06	-9.61	2.90	17.29	-14.39	16.35	40.35	-24.00
2055	13.51	24.21	-10.70	2.90	17.54	-14.64	16.41	41.74	-25.34
2060	13.56	25.23	-11.66	2.90	17.80	-14.90	16.46	43.03	-26.56

<sup>1</sup>Cost rates for HI exclude amounts required for trust fund maintenance.

<sup>2</sup>The taxable payroll for HI is somewhat larger than the taxable payroll for OASDI, because HI covers all Federal civilian employees, including those hired before 1984, all State and local government employees hired after April 1, 1986, and railroad employees. This difference is relatively small and does not significantly affect the comparisons.

Note: Totals do not necessarily equal the sums of rounded components.

Table E3 summarizes the estimates of OASDI and HI income rates, cost rates, and balances for various time periods, based on all four sets of assumptions. Income rates exclude interest earned on trust-fund assets. Cost rates shown for HI exclude the cost of maintaining the trust fund at a level suitable for a contingency reserve.

Under the pessimistic set of assumptions, the combined OASDI and HI system is projected to show deficits during the next 25, 50, and 75-year periods (including beginning trust fund balances). Deficits are projected to occur during each 25-year subperiod of the 75-year projection period (excluding beginning trust fund balances). Under intermediate assumptions, positive balances are projected to

occur during the next 25-year period whether or not beginning trust fund balances are included. Deficits are projected to occur during the 50 and 75-year projection periods (including beginning trust fund balances), and during the last two 25-year subperiods (excluding beginning trust fund balances). Under optimistic assumptions, the combined OASDI and HI system is projected to show positive balances during the 25, 50, and 75-year periods and during the first 25-year subperiod. Small deficits are projected during the second and third 25-year subperiod (excluding beginning trust fund balances).

TABLE E3.—COMPARISON OF SUMMARIZED INCOME RATES AND COST RATES<sup>1</sup> FOR OASDI AND HI BY ALTERNATIVE, CALENDAR YEARS 1990-2064  
(As a percentage of taxable payroll<sup>2</sup>)

Calendar year	OASDI			HI			TOTAL		
	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance	Income rate	Cost rate	Balance
<b>Alternative I:</b>									
25-year subperiods: <sup>3</sup>									
1990-2014 .....	12.63	9.53	3.10	2.90	3.04	-0.13	15.53	12.57	2.97
2015-2039 .....	12.89	12.23	.66	2.90	3.85	-.94	15.79	16.07	-.28
2040-2064 .....	12.91	11.97	.94	2.90	4.33	-1.42	15.82	16.30	-.48
Valuation ranges: <sup>4</sup>									
25 years: 1990-2014 .....	12.93	9.53	3.40	3.06	3.04	.02	15.99	12.57	3.42
50 years: 1990-2039 .....	12.91	10.80	2.11	2.98	3.42	-.43	15.90	14.22	1.68
75 years: 1990-2064 .....	12.91	11.15	1.76	2.96	3.69	-.73	15.87	14.84	1.04
<b>Alternative II-A:</b>									
25-year subperiods: <sup>3</sup>									
1990-2014 .....	12.66	10.39	2.26	2.90	3.64	-.73	15.56	14.03	1.53
2015-2039 .....	12.99	14.55	-1.56	2.90	6.55	-3.65	15.90	21.11	-5.21
2040-2064 .....	13.10	16.12	-3.02	2.90	7.99	-5.09	16.01	24.11	-8.11
Valuation ranges: <sup>4</sup>									
25 years: 1990-2014 .....	12.37	10.39	2.58	3.06	3.64	-.57	16.04	14.03	2.00
50 years: 1990-2039 .....	12.96	12.29	.69	2.99	4.97	-1.97	15.97	17.25	-1.28
75 years: 1990-2064 .....	13.01	13.32	-.31	2.97	5.78	-2.82	15.98	19.11	-3.13
<b>Alternative II-B:</b>									
25-year subperiods: <sup>3</sup>									
1990-2014 .....	12.67	10.83	1.84	2.90	3.83	-.92	15.57	14.66	0.92
2015-2039 .....	13.02	15.20	-2.18	2.90	7.08	-4.17	15.93	22.28	-6.35
2040-2064 .....	13.14	16.89	-3.75	2.90	8.56	-5.66	16.04	25.45	-9.41
Valuation ranges: <sup>4</sup>									
25 years: 1990-2014 .....	12.99	10.83	2.17	3.07	3.83	-.76	16.06	14.66	1.41
50 years: 1990-2039 .....	13.01	12.83	.17	2.99	5.32	-2.33	16.00	18.15	-2.16
75 years: 1990-2064 .....	13.04	13.95	-.91	2.97	6.22	-3.25	16.01	20.17	-4.16
<b>Alternative III:</b>									
25-year subperiods: <sup>3</sup>									
1990-2014 .....	12.71	12.29	.42	2.91	4.95	-2.05	15.61	17.24	-1.63
2015-2039 .....	13.15	18.24	-5.09	2.90	13.34	-10.43	16.06	31.58	-15.52
2040-2064 .....	13.43	23.48	-10.05	2.90	17.39	-14.48	16.34	40.87	-24.53
Valuation ranges: <sup>4</sup>									
25 years: 1990-2014 .....	13.07	12.29	.77	3.09	4.95	-1.87	16.15	17.24	-1.09
50 years: 1990-2039 .....	13.10	14.93	-1.83	3.00	8.67	-5.67	16.11	23.61	-7.50
75 years: 1990-2064 .....	13.19	17.06	-3.87	2.98	10.84	-7.86	16.17	27.89	-11.73

<sup>1</sup> Cost rates for HI exclude amounts required for trust fund maintenance.

<sup>2</sup> The taxable payroll for HI is somewhat larger than the taxable payroll for OASDI, because HI covers all Federal civilian employees, including those hired before 1984, all State and local government employees hired after April 1, 1986, and railroad employees. This difference is relatively small and does not significantly affect the comparisons.

<sup>3</sup> Income rates do not include beginning trust fund balances.

<sup>4</sup> Income rates include beginning trust fund balances.

Note: Totals do not necessarily equal the sums of rounded components.