# APPENDIX C.—DETERMINATION AND ANNOUNCEMENT OF SOCIAL SECURITY BENEFIT INCREASES<sup>1</sup>

I hereby determine and announce a cost-of-living increase of 11.2 percent in benefits under titles II and XVI of the Social Security Act.

Under title II, Old-Age, Survivors, and Disability Insurance benefits will increase by 11.2 percent beginning with the June 1981 benefits which are payable on July 3, 1981. This increase is based on the authority contained in section 215(i) of the Social Security Act (42 U.S.C. 415(i)), as amended by section 201 of Pub. L. 95-216 enacted December 20, 1977.

Under title XVI, supplemental security income payment levels will increase by 11.2 percent effective for payments made on July 1, 1981. This is based on the authority contained in section 1617 of the Social Security Act (42 U.S.C. 1382f).

#### TITLE II BENEFITS

Title II benefits are payable under the Federal Old-Age, Survivors, and Disability Insurance program. Individuals entitled under this program include insured workers, wives, husbands, children, widows, widowers, mothers, fathers, and parents.

In accordance with section 215(i)(4) of the Social Security Act (the Act), the primary insurance amounts and the maximum family benefits shown in columns IV and V of the revised benefit table (table 1) set forth below were obtained by increasing by 11.2 percent the corresponding amounts established by: (1) The last cost-of-living increase; and (2) the extension of the benefit table made under section 215(i)(4) and published on November 18, 1980 at 45 FR 76252. The table applies only to those persons who attained age 62, became disabled or died before January 1979 and is deemed to appear in section 215(a) of the Act. Note that this table does not apply to those individuals who reach age 62, become disabled, or die after 1978; their benefits will generally be determined by a new benefit formula provided by the Social Security Amendments of 1977 (Pub. L. 95-216). For such persons first eligible for benefits in the period 1979-1981, the 11.2 percent increase will apply beginning June 1981; but the 11.2 percent increase will not apply for persons first becoming eligible for benefits after 1981.

Section 215(i)(2)(D) of the Act also requires that, when the Secretary determines a cost-of-living 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)(II). 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)(II), the attached table 2 shows the revised range of primary insurance amounts and corresponding maximum family benefit amounts after the 11.2 percent benefit increase.

Section 227 of the Act provides limited benefits to a worker who became age 72 before 1969 and was not insured under the usual 'This statement, edited for presentation here, was published in the Federal Register for May 15, 1981 (Vol. 46, No. 94, pp. 27076-77).

requirements, and to his wife or widow. Section 228 of the Act provides similar benefits at age 72 for certain uninsured persons. The current monthly benefit amounts of \$105.20 for an individual and \$52.70 for a wife established under sections 227 and 228 of the Act are increased by 11.2 percent to obtain the new amounts of \$117.00 and \$58.70.

#### TITLE XVI BENEFITS

Section 1617 of the Act provides that whenever title II benefits are increased under section 215(i), the amounts in sections 1611(a)(1)(A), 1611(a)(2)(A), 1611(b)(1) and 1611(b)(2) of the Act and in section 211(a)(1)(A) of Pub. L. 93-66 shall be increased. The new amounts are effective for months after the month in which the title II increase is effective. The percentage increase is the same as the title II benefit increase and the annual payment amount is rounded, when not a multiple of \$1.20, to the next higher multiple of \$1.20.

In accordance with section 1617, Federal Supplemental Security Income (SSI) guarantees for the aged, blind, and disabled are increased effective with July 1981 by 11.2 percent. The current yearly Federal SSI guarantees of \$2,856.00 for an eligible individual and \$4,284.00 for an eligible individual with an eligible spouse are thereby increased to \$3,176.40 and \$4,764.00 respectively. The monthly payment is determined by dividing the yearly guarantee by 4, subtracting quarterly countable income, and dividing the remainder by 3. In the case of an eligible individual with an eligible spouse, the amount payable is further divided equally between the two spouses. The amount by which the Federal SSI guarantee amount is increased because of the presence of an essential person in the home, currently \$1,430.40 per year for each essential person under section 211(a)(1)(A) of Pub. L. 93-66, is also increased by 11.2 percent to obtain a new amount of \$1,591.20.

#### AUTOMATIC BENEFIT INCREASE DETERMINATION

Section 215(i) of the Act requires that when certain conditions are met in the first calendar quarter of a year, the Secretary shall determine that a cost-of-living increase in benefits is due. Section 215(i) of the Act also specifies the formula for determining the amount of any cost-of-living increase in benefits. This formula utilizes the Consumer Price Index for urban wage earners and clerical workers reported by the Department of Labor.

Section 215(i)(2)(A) of the Act requires the Secretary to determine each year whether there is a cost-of-living computation quarter in that year. If the Secretary so determines, the Secretary shall, effective with June of that year, increase benefits for individuals entitled under section 227 or 228 of the Act, shall increase the primary insurance amounts of all other individuals entitled under title II of the Act, and shall also increase the maximum benefits payable to a family. Section 1617 of the Act requires that SSI benefits be increased by the same percentage increase as title II benefits, whenever title II benefits are increased under section 215(i). The percentage increase is equal to the percentage increase in the Consumer Price Index for the cost-of-living computation quarter over the index for the most recent cost-of-living computation quarter.

Section 215(i)(1) of the Act defines a base quarter as a calendar quarter ending on March 31 in each year after 1974, or any other

calendar quarter in which occurs the effective month of a general benefit increase. Section 215(i)(1) also defines a cost-of-living computation quarter as a base quarter in which the Consumer Price Index prepared by the Department of Labor exceeds by not less than 3 percent the index in the later of (1) the last prior cost-of-living computation quarter or (2) the most recent calendar quarter in which a general benefit increase was effective. However, there shall be no cost-of-living computation quarter in any calendar year if in the prior year a general benefit increase was enacted or became effective. Section 215(i)(1) of the Act also provides that the Consumer Price Index for a cost-of-living computation quarter shall be the arithmetical mean of such index for the 3 months in that quarter.

The Department of Labor's revised Consumer Price Index for urban wage earners and clerical workers for each month in the quarter ending March 31, 1980 was: For January 1980, 233.3; for February 1980, 236.5; and for March 1980, 239.9. The arithmetical mean for the calendar quarter was 236.6. The corresponding Consumer Price Index for each month in the quarter ending March 31, 1981 was: For January 1981, 260.7; for February 1981, 263.5; and for March 1981, 265.2. The arithmetical mean for this calendar quarter is 263.1. The increase for the calendar quarter ending March 31, 1981 is 11.2 percent. Thus, since the percentage of increase in the Consumer Price Index from the calendar quarter ending March 31, 1980 to the calendar quarter ending March 31, 1981 is not less than 3 percent, the quarter ending March 31, 1981 is a cost-of-living computation quarter. Consequently, a cost-of-living benefit increase of 11.2 percent is effective for benefits under title II of the Act beginning June 1981.

(Catalog of Federal Domestic Assistance Programs Nos. 13.802-5, and 13.807 Social Security Programs.)

Dated: May 13, 1981.

Richard S. Schweiker, Secretary of Health and Human Services

(The revised tables of benefits which were published at the end of the above announcement in the Federal Register are not reproduced here because of their length.)

APPENDIX D.—DETERMINATION AND ANNOUNCEMENT OF SOCIAL SECURITY CONTRIBUTION AND BENEFIT BASE, QUARTER OF COVERAGE AMOUNT, RETIREMENT TEST EXEMPT AMOUNTS, AVERAGE OF THE TOTAL WAGES, FORMULAS FOR COMPUTING BENEFITS, AND EXTENDED TABLE OF BENEFIT AMOUNTS FOR 1982<sup>1</sup>

Summary

The Secretary has determined—

- (1) The average of the total wages for 1980 to be \$12,513.46;
- (2) The Social Security contribution and benefit base to be \$32,400 for remuneration paid in 1982 and self-employment income earned in taxable years beginning in 1982;
- (3) The amount of earnings a person must have to be credited with a quarter of coverage in 1982 to be \$340; and
- (4) The monthly exempt amount under the Social Security retirement test for taxable years ending in calendar year 1982 to be \$500 for beneficiaries age 65 and over and \$370 for beneficiaries under age 65.

The formulas we use to compute the benefits for a worker and his or her family who first become eligible for benefits in 1982 are also described below.

Finally, a table reflecting the new higher average monthly wage and related benefit amounts made possible by the higher contribution and benefit base is also published. The table will be used primarily to compute the retirement benefits of workers who reached age 62 before 1979.

# Supplementary information

Sections 203(f)(8), 213(d) and 230(a) of the Social Security Act (42 U.S.C. 403(f)(8), 413(d) and 430(a)) require the Secretary of Health and Human Services to publish in the Federal Register on or before November 1, 1981, the contribution and benefit base, the amount of earnings required for a quarter of coverage, and the retirement test exempt amounts, for calendar year 1982. In addition, section 215(a)(1)(D) requires that we publish by November 1, 1981 the formula for computing a primary insurance amount for workers who first become eligible for benefits or die in 1982, and section 203(a)(2)(C) requires that we publish by November 1, 1981 the formula for computing a family's maximum benefits for families of workers who first become eligible for old-age benefits or die in 1982.

# AVERAGE OF THE TOTAL WAGES FOR 1980

The determination of the average wage figure for 1980 is based on the 1979 average wage figure of \$11,479.46 announced in the Federal Register on November 18, 1980 (45 FR 76252) along with the percentage increase in average wages from 1979 to 1980 measured by annual wage data tabulated by the Internal Revenue Service (IRS). The average amounts of wages calculated directly from IRS data were \$11,789.01 and \$12,850.89 for 1979 and 1980, respectively. To determine an average wage figure for 1980 at a level that is consistent with the series of average wages for 1951-1977 (published December 29, 1978 at 43 FR

<sup>1</sup>This statement, edited for presentation here, was published in the Federal Register for October 30, 1981 (Vol. 46, No. 210, pp. 53791-94).

61016), we multiplied the 1979 average wage figure of \$11,479.46 by the percentage increase in average wages from 1979 to 1980 (based on IRS data) as follows (with the result rounded to the nearest cent):

Average wage for  $1980 = \$11,479.46 \times (\$12,850.89/\$11,789.01) = \$12,513.46.$ 

Therefore, the average wage for 1980 is determined to be \$12,513.46.

CONTRIBUTION AND BENEFIT BASE

# Computation

The 1982 contribution and benefit base is \$32,400.

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 figuring a person's Social Security benefits.

Section 230(c) of the Social Security 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 Social Security Act contains a formula for determining the contribution and benefit base. Under the prescribed formula, the contribution and benefit base for 1982 shall be equal to the 1981 base of \$29,700 multiplied by the ratio of (1) the average amount, per employee, of total wages for the calendar year 1980 to (2) the average amount of those wages for the calendar year 1979. 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 for calendar year 1979 was previously determined to be \$11,479.46. The average wage for calendar year 1980 has been determined to be \$12,513.46, as stated herein.

#### Amount

The ratio of the average wage for 1980, \$12,513.46, compared to that for 1979, \$11,479.46, is 1.090074. Multiplying the 1981 contribution and benefit base of \$29,700 by the ratio 1.090074 produces the amount of \$32,375.20 which must then be rounded to \$32,400. Accordingly, the contribution and benefit base for 1982 is \$32,400.

#### **OUARTER OF COVERAGE AMOUNT**

#### Computation

The 1982 amount of earnings required for a quarter of coverage is \$340. 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 for which \$100 or more of self-employment income were credited, to the individual. Beginning in 1978, wages generally are no longer reported quarterly; 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 Social Security 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). Section 213(d) also provides that this amount shall be redetermined each year and any change published in the Federal Register no later than November 1 of the year preceding the year for which the change is effective. Under the prescribed formula, the quarter of coverage amount for 1982 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 year 1980 to (2) the average amount of those wages reported for calendar year 1976. 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 1980 has been determined to be \$12,513.46 as stated herein.

#### Amount

The ratio of the average wage for 1980, \$12,513.46, compared to that for 1976, \$9,226.48, is 1.356255. Multiplying the 1978 quarter of coverage amount of \$250 by the ratio of 1.356255 produces the amount of \$339.06 which must then be rounded to \$340. Accordingly, the quarter of coverage amount for 1982 is \$340.

#### RETIREMENT TEST EXEMPT AMOUNTS

## Computation

The 1982 amount of \$500 for the retirement test monthly exempt amount for beneficiaries aged 65 through 71 is stated in the law. The corresponding annual retirement test exempt amount for those individuals is \$6,000. Section 301 of the Social Security Amendments of 1977 amended section 203 of the Social Security Act to provide a higher retirement test exempt amount for beneficiaries aged 65 through 71 than for those beneficiaries under age 65.

The monthly exempt amount of \$370 for beneficiaries under age 65 is determined according to a formula specified in the law, which automatically produced a mathematical result based upon reported statistics. Section 203(f)(8) of the Social Security Act provides that the retirement test monthly exempt amount for 1982 shall be equal to the 1981 amount of \$340 multiplied by the ratio of (1) the average amount, per employee, of the wages of all employees reported under the program for calendar year 1980 to (2) the average amount of those wages reported for calendar year 1979. 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.

There is no limit on the amount an individual aged 72 or over may earn and still receive Social Security benefits. (Beginning in 1983, the age at which the retirement test no longer applies will be reduced from age 72 to age 70.)

#### 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 1980, \$12,513.46 compared to that for 1979, \$11,479.46 is 1.090074.

Exempt amount for persons under age 65

Multiplying the 1981 retirement test monthly exempt amount of \$340 by the ratio of 1.090074 produces the amount of \$370.63. This must then be rounded to \$370. Accordingly, the retirement test monthly exempt amount for persons under age 65 is determined to be \$370 for 1982. The corresponding annual exempt amount for 1982 is \$4,440.

# COMPUTING BENEFITS AFTER 1978

The Social Security Amendments of 1977 changed the formula for determining an individual's primary insurance amount after 1978. This basic new formula is based on "wage indexing," and was fully explained with interim regulations published in the Federal Register on December 29, 1978 at 43 FR 60877. It generally applies when a worker after 1978 attains age 62, becomes disabled, or dies before age 62. This formula uses the worker's earnings after they have been adjusted, or "indexed," in proportion to the increase 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" and also adjust the computation formula 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 their 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 1982, we divide the average of the total wages for 1980, \$12,513.46, by the average of the total wages for each year prior to 1980 in which the worker had earnings. We then multiply the actual wages and self-employment income credited for those years by this ratio to obtain the worker's adjusted earnings for that 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 1982.

# 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 1982 are obtained by multiplying the 1979 amounts by the ratio between the average of the total wages for 1980, \$12,513.46, and for 1977, \$9,779.44. These results are then rounded to the nearest dollar. For 1982 the ratio is 1.279568. Multiplying the 1979 amounts of \$180 and \$1,085 by 1.279568 produces the amounts of \$230.32 and \$1,388.33. These must then be rounded to \$230 and \$1,388. Accordingly, the portions of the average indexed monthly earnings to be used in 1982 are determined to be the first \$230, the amount between \$230 and \$1,388, and the amount over \$1,388.

Consequently, for individuals who first become eligible for old-age insurance benefits or disability insurance benefits in 1982 or who die in 1982 before becoming eligible for benefits, we will compute their primary insurance amount by adding the following:

- (a) 90 percent of the first \$230 of their average indexed monthly earnings, plus
- (b) 32 percent of the average indexed monthly earnings over \$230 and through \$1,388, plus
- (c) 15 percent of the average indexed monthly earnings over \$1,388.

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 215(a) of the Social Security Act (42 U.S.C. 415(a)) as amended by Pub. L. 97-35.

#### MAXIMUM BENEFITS PAYABLE TO A FAMILY

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 1980 Amendments (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 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 1982 are obtained by multiplying the 1979 amounts by the ratio between the average of the total wages for 1980, \$12,513.46, and for 1977, \$9,779.44. This amount is then rounded to the nearest dollar. For 1982, the ratio is 1.279568. Multiplying the

amounts of \$230, \$332, and \$433 by 1.279568 produces the amounts of \$294.30, \$424.82, and \$554.05. These amounts are then rounded to \$294, \$425, and \$554. Accordingly, the portions of the primary insurance amounts to be used in 1982 are determined to be the first \$294, the amount between \$294 and \$425, the amount between \$425 and \$554, and the amount over \$554.

Consequently, for the family of a worker who becomes age 62 or dies in 1982, the total amount of benefits payable to them will be computed so that it does not exceed:

- (a) 150 percent of the first \$294 of the worker's primary insurance amount, plus
- (b) 272 percent of the worker's primary insurance amount over \$294 through \$425, plus
- (c) 134 percent of the worker's primary insurance amount over \$425 through \$554, plus
- (d) 175 percent of the worker's primary insurance amount over \$554.

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 Social Security Act (42 U.S.C. 403(a)) as amended by Pub.L. 97-35.

# EXTENSION OF BENEFIT TABLE EFFECTIVE JANUARY 1982

The following is an extension of the Table for Determining Primary Insurance Amount and Maximum Family Benefits provided in section 215(a)(5) of the Social Security Act. This extension reflects the higher average monthly wage and related benefit amounts now possible under the increased contribution and benefit base published by this Notice effective January 1982 in accordance with section 215(i) of the Social Security Act. The extended portion of the benefit table shown here will apply primarily to benefits based on earnings of workers who reached age 62 before 1979.

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

Dated: October 27, 1981.

Richard S. Schweiker,

Secretary of Health and Human Services

(The extended benefit table which was published at the end of the above announcement in the Federal Register is not reproduced here because of its length.)

# APPENDIX E.—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 to reflect changes in the general economy. Specific formulas are prescribed by the law 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 that are subject to automatic adjustment from the time that such adjustments became effective through the present time. Projected values for future years through 1987, based on the two intermediate sets of assumptions (alternatives II-A and II-B), are also shown. These assumptions are summarized earlier in this report in the section entitled "Economic and Demographic Assumptions" and were shown in Tables 10 and 11. The section entitled "Automatic Adjustments," and Appendices C and D, should be referred to for 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 persons newly 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 provisions. The announcement of the average wage determination for 1980, including a brief description of its derivation, is shown in Appendix D. Appendix D also describes the determinations of other program amounts that are in effect for 1982. Table E1 shows the average amount of total wages as announced for 1951 through 1980, together with projected values for 1981 through 1987 based on the two intermediate sets of assumptions.

TABLE E1.—AVERAGE AMOUNT OF TOTAL WAGES, 1951-80, AND PROJECTED FUTURE AMOUNTS FOR 1981-87 UNDER THE TWO INTERMEDIATE SETS OF ASSUMPTIONS

Calendar year	Actual amounts	
1951	\$2,799.16	
1952	2,973.32	
1953	3,139,44	
1954	3,155.64	
1955	3,301.44	
	3,532.36	
1956		
1957	3,641.72	
1958	3,673.80	
1959	3,855.80	
1960	4,007.12	
1961	4,086.76	
1962	4,291.40	
1963	4,396.64	
1964	4,576.32	
	4.658.72	
1965	4,938.36	
1966		
1967	5,213.44	
1968	5,571.76	
1969	5,893.76	
1970	6,186.24	
1971	6,497.08	
1972	7,133.80	
	7,580.16	
1973		
1974	8,030.76	
1975	8,630.92	
1976	9,226.48	
1977	9,779.44	
1978	10,556.03	
1979	11,479.46	
1980	12,513.46	
	Projected future amounts by alternative	9—
-	II-A	II-B
1981	\$13,609.77	\$13,594.27
1982	14,782.49	14,495.68
1983	15,717.12	15.663.97
		16,926.39
1984	16,603.03	
1985	17,824.48	18,099.11
1986	19,117.91	19,329.42
1987	20,479.99	20,609.56
The state of the s		

Note: The assumptions underlying the projections are described in the section entitled "Economic and Demographic Assumptions" and are shown in Table 10.

The provisions for automatic cost-of-living increases in OASDI benefits were enacted in 1972 and first became effective with the benefit increase for June 1975. The notice announcing the June 1981 benefit increase is shown in Appendix C. Table E2 shows the automatic benefit increases determined for each year 1975-81 and the benefit increases for each year 1982-87 projected on the basis of the two intermediate sets of assumptions.

TABLE E2.—BENEFIT INCREASE AND OTHER OASDI PROGRAM AMOUNTS DETERMINED UNDER THE AUTOMATIC PROVISIONS, 1975-82, AND ESTIMATED FUTURE AMOUNTS FOR 1983-87, UNDER THE TWO INTERMEDIATE SETS OF ASSUMPTIONS

increa	Benefit	"Old-law" Benefit Contribution contribution		Retirement test exempt amount		Amount of earnings	AIME "bend points" in PIA formula		PIA "bend points" in maximum family benefit formula		
	increase <sup>1</sup> (percent)	increase <sup>1</sup> and benefit	and benefit base <sup>2</sup>	Under age 65	Age 65 and over	required for - quarter of coverage <sup>3</sup>	First	Second	First	Second	Thire
Actual experience:											
1975	8.0	\$14,100	(4)	\$2,520	\$2,520	(5)	(4)	(4)	(4)	(4)	/41
1976	6.4	15,300	(4)	2,760	2,760	(5)	}.\`	74	747	λ.	Σ.
1977	5.9	16,500	(4)	3,000	3,000	)s(	۸۲	74	$\mathcal{R}$	λ	Ω.
1978	6.5	17,700	(4)	3,240	4,000	7 <b>\$</b> 250	<b>}</b> 4	λ.	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Σ.	Ω.
1979	9.9	°22.900	\$18,9ÒÓ	3,480	4,500	260	₹18ó	7\$1,085	7\$230	7 <b>\$</b> 332	70400
1980	14.3	*25,900	20,400	3,720	<b>65,000</b>	290	194	1,171	248	358	7\$433
1981	11.2	°29,700	22,200	4,080	<b>65,500</b>	310	211	1,274	270	390	467
1982	⁵7.6	32,400	24,300	4,440	6,000	340	230	1,388	294		508
Projected future		,	,	.,	0,000	540	230	1,300	294	425	554
experience:											
Alternative II-A:											
1983	6.5	35,100	26,400	4,800	6,480	370	251	1,510	320	460	000
1984	4.8	38,100	28,800	5,160	7,080	400	272	1,640		462	603
1985	4.8	40,500	30,600	5,520	7,560	430	289	1,744	348	502	655
1986	4.6	42,900	32,400	5,880	8,040	450	306	1,842	370	534	696
1987	4.5	46,200	34,800	6,360	8,640	480	328	1,978	390	564	735
Alternative II-B:		,	0.,000	0,000	0,040	400	320	1,870	419	605	789
1983	7.5	35,100	26,400	4,800	6,480	370	250	1,508	000	400	
1984	7.7	37,500	28,200	5,160	6,960	390	267		320	462	602
1985	6.9	40,500	30,600	5,520	7,560	420	288	1,608	341	492	642
1986	6.1	43,800	33,000	6,000	8,160	460	312	1,738	368	532	694
1987	5.6	46,800	35,400	6,360	8,760	490	333	1,878 2,008	398 426	575 614	749 801

<sup>&</sup>lt;sup>1</sup>Effective with benefits payable for the month of June in each year shown.

<sup>&</sup>lt;sup>2</sup>Contribution and benefit base that would have been determined automatically under the law in effect prior to the Social Security Amendments of 1977.

<sup>&</sup>lt;sup>3</sup>See Appendix D for a description of quarter-of-coverage requirements prior to 1978.

<sup>&#</sup>x27;No provision in law for this amount in this year.

<sup>&</sup>lt;sup>5</sup>Amount not subject to automatic provisions in this year.

<sup>&</sup>lt;sup>6</sup>Amount represents ad hoc increase specified by Social Security Amendments of 1977.

<sup>&</sup>lt;sup>7</sup>Amount specified for first year by Social Security Amendments of 1977; amounts for subsequent years subject to automatic provisions.

<sup>\*</sup>Estimated.

Note: The assumptions underlying the projections are described in the section entitled "Economic and Demographic Assumptions" and are shown in Table 10.

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 provisions.) The bases for 1979-81 were set by the 1977 amendments at levels above those which were expected to occur under the automatic provisions (and which, in fact, as the experience developed, were above such levels). Starting again in 1982, the bases are determined automatically on the basis of increases in average wages. Table E2 shows past and estimated future amounts for the contribution and benefit base.

As mentioned in the section "Automatic Adjustments," the Social Security Act also provides for the determination of the contribution and benefit base that would have been in effect in each year after 1978 under the law as in effect prior to the enactment of the 1977 amendments. Table E2 presents such amounts as determined for 1979-82, together with projections for 1983-87 under the two intermediate sets of assumptions.

The 1972 amendments also specified that the amount of earnings exempted from the withholding of benefits under the earnings retirement 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 different exempt amounts for those under age 65 and those aged 65 and over. The former amounts continue to increase automatically, while the latter amounts are set at specific levels for 1978-82, after which time they will again increase automatically. The announcement of the exempt amounts for 1982 is shown in Appendix D, and Table E2 shows both sets for 1975-87.

The 1977 amendments provided for an amount of earnings to be used in 1978 to credit a "quarter of coverage," and for automatic adjustment of this amount for future years. Appendix D describes the determination of the amount for 1982. Table E2 shows the amounts for 1978-87.

As mentioned previously, the 1977 amendments substantially revised the method of computing benefits for people first becoming eligible for benefits in 1979 and later. The formula used to compute an individual's Primary Insurance Amount (PIA) for persons newly 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 are called "bend points." They are adjusted automatically by the changes in average wages as specified in section 215(a)(1)(B) of the Social Security Act. (A minimum benefit of \$122 and a "special minimum benefit" varying by "years of coverage" are also provided although for most persons first becoming eligible for benefits in 1982 and later, the regular

minimum benefit of \$122 has been eliminated.) The determination of the bend points for the 1982 PIA formula is described in Appendix D. The bend points for 1979-82, and the amounts estimated for 1983-87, are shown in Table E2.

A similar formula is used to compute the maximum amount of total 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 persons newly 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). Appendix D contains the announcement of the 1982 family maximum formula bend points. The past and projected amounts are shown in Table E2.

## APPENDIX F.—ACTUARIAL COST PROJECTIONS OF THE OASI, DI, AND HI PROGRAMS, COMBINED

In this appendix, cost projections for the OASI, DI, and Hospital Insurance Trust Funds are summarized to facilitate analysis of the adequacy of the combined income and assets of these three trust funds relative to their combined expenditures. These projections represent the combination of projections shown in this report and in the similar report for the HI Trust Fund. Table F1 shows estimated assets of the combined funds as a percentage of combined annual expenditures for calendar years 1982-91, based on the four alternative sets of assumptions used in this report.

As described previously in this report, Public Law 97-123 granted limited authority for interfund borrowing to the Managing Trustee. The authority expires at the end of 1982 and the amount that can be borrowed at any time is limited to that necessary to ensure the timely payment of benefits during the subsequent 6 months. Throughout this report, and the associated HI Annual Report, the effects of this limited interfund borrowing authority are included in the estimated trust fund operations. The projections shown in this appendix for the combined trust funds are theoretical since, under present law, no provision exists beyond 1982 for transferring income or assets from one trust fund to another. Thus the emphasis in this appendix on combined operations should not obscure the financial status of the individual trust funds.

As shown in column 1, the assets of the OASI Trust Fund are projected to be insufficient to pay benefits when due in about 1 year under all four sets of assumptions. Column 2 indicates that, after 1982, the DI Trust Fund is expected to experience rapid growth for the remainder of this decade under all four sets of assumptions. Combined OASI and DI assets (shown in column 3) would be insufficient to pay combined benefits when due in the near future under each of the alternatives. Column 4 shows that the assets of the HI Trust Fund would decline steadily during the 1980's under all four sets of assumptions. As described in the HI Annual Report, the HI Trust Fund is estimated to be exhausted as early as 1986 under alternative III. Exhaustion is also projected under alternatives II-B, II-A, and I, with this estimated to occur in 1987, 1989, and 1991, respectively.

Assets of the combined OASI, DI, and HI Trust Funds as a percentage of combined annual expenditures (shown in the last column) are estimated under alternatives I and II-A to continue to decline through the beginning of 1985, reaching a low point of 12 and 8 percent, respectively, before beginning to increase. Under alternatives II-B and III, the fund ratios for the three trust funds combined decline throughout the period shown and would be insufficient to pay combined benefits when due within a few years.

The question has frequently been raised concerning whether reallocation of tax rates among the OASI, DI, and HI programs, or the extension of authority for interfund borrowing, would be sufficient to prevent the OASI Trust Fund's imminent financing problems. As indicated by the projections in Table F1, under the optimistic and intermediate II-A sets of assumptions, projected OASDI and HI tax

income under present law would be barely sufficient to allow timely payment of projected OASDI and HI benefits in the aggregate for the remainder of this decade. Under these assumptions the margin for safety is virtually nonexistent. In other words, if actual future economic and demographic conditions are even slightly less favorable than those assumed in alternative II-A, scheduled OASDI and HI tax income would be insufficient and tax rate reallocation or extended interfund borrowing could only postpone temporarily the need for additional income or reduced benefits. In particular, under alternative II-B, the assets of the combined funds are insufficient to pay benefits when due beginning in about 1984. Under alternative III, depletion of the combined funds would occur late in 1983 or early in 1984. Thus tax rate reallocation or extended interfund borrowing alone cannot be prudently relied upon to prevent the depletion of the OASI Trust Fund within the relatively near future.

TABLE F1.—PROJECTED ASSETS OF THE OASI, DI, AND HI TRUST FUNDS, SEPARATE AND COMBINED, AT BEGINNING OF YEAR AS A PERCENTAGE OF ANNUAL EXPENDITURES DURING YEAR UNDER THE FOUR ALTERNATIVE SETS OF ASSUMPTIONS, CALENDAR YEARS 1982-91

Calendar year	OASI	DI	OASDI	н	Total OASDI and HI
Alternative I:					
1982	15	16	15	53	22
1983	110	8	210	51	18
1984	11	48	26	49	14
1985	1-7	98	24	44	12
1986	1-10	178	9	40	16
1987	1-10	265	17	39	22
1988	1.9	359	27	35	29
1989	¹-6	464	40	29	37
1990	(3)	567	56	20	47
1991	15	696	82	19	63
Alternative II-A:					
1982	15	16	15	53	22
1983	10	Ř	210	52	18
1984	(*)	47	24	49	13
	1-11	93	2-1	42	
1985	1-18	169	(3)	35	8 8
1986	1-24	253	23	30	ğ
1987	1-28	342	8	21	11
1988	1-30	432	15	19	13
1989	1-30	524	22	(5)	15
1990			39		23
1991	1-26	642	39	(5)	23
Alternative II-B:	4.5	40	45	53	22
1982	15	16	15		
1983	-11	. 8	²10	38	16
1984	( <sup>5</sup> )	43	23	34	29
1985	(5)	84	2-4	26	*2
1986	(5)	148	2-7	16	(5)
1987	(5)	217	²-10	19	(*)
1988	(5)	288	²-13	(*)	(5)
1989	(5)	361	²-16	(5)	(5)
1990	(5)	436	²-19	(5)	(5)
1991	(5)	536	2-13	(5)	(5)

TABLE F1.—PROJECTED ASSETS OF THE OASI, DI, AND HI TRUST FUNDS, SEPARATE AND COMBINED, AT BEGINNING OF YEAR AS A PERCENTAGE OF ANNUAL EXPENDITURES DURING YEAR UNDER THE FOUR ALTERNATIVE SETS OF ASSUMPTIONS, CALENDAR YEARS 1982-91 (Cont.)

					Total OASDI
Calendar year	OASI	DI	OASDI	HI	and Hi
Alternative III:					
1982	15	16	15	53	22
1983	14.4	8	211	35	15
1984	/5\	39	21	29	26
1985	/5\	71	(5)	17	(5)
1986	isi	125	( <sup>5</sup> )	13	(5)
1987	/si	181	(*)	(5)	( <sup>5</sup> )
1988	(5)	239	(5)	(5)	(5)
1989	isi	297	( <sup>5</sup> )	(5)	(5)
1990	/5)	356	(*)	(°)	(°5)
1991	/51	436	(*)	(5)	(5)

<sup>&</sup>lt;sup>1</sup>Assets of fund would be insufficient to pay benefits when due during part or all of this year.

Note: The assumptions underlying the projections are described in the section entitled "Economic and Demographic Assumptions" of this report and in Appendix A of the HI Annual Report. The OASI, OASDI, and combined OASDI and HI Trust Fund ratios in 1983 and later under each alternative are theoretical, because the OASI Trust Fund is projected to be depleted, and no provision for additional income exists in present law. See text for details. See text for estimated depletion years for the HI Trust Fund.

Table F2 shows projected cost rates for the OASI, DI, and HI programs during the period 1982-2006 under alternatives II-A and II-B. HI cost projections for years after 2006 are not shown in the HI Annual Report. The program's expenditures as a percentage of taxable payroll would, nonetheless, be subject to the same demographic effects that will cause OASDI costs to increase rapidly after the year 2010. Total cost rates for the three trust funds combined are shown in column 4 of Table F2 and are compared to total employee-employer tax rates in column 5. The resulting surplus or deficiency is presented in column 6. As previously explained, cost rates represent program expenditures as a percentage of effective taxable payroll. The definition of effective taxable payroll is slightly different for OASDI compared to HI, due to the different tax treatment of self-employment earnings. This difference does not materially affect the comparisons. It should also be noted that the cost rates shown exclude any cost associated with rebuilding the trust funds to a level suitable as a contingency reserve, or the cost of maintaining such a level once reached. The text of this report and Table 8 of the HI Annual Report present these additional costs.

TABLE F2.—ESTIMATED COST RATES OF THE OASI, DI, AND HI PROGRAMS UNDER ALTERNATIVES II-A AND II-B AND COMPARISON WITH THE SCALENDAR YEARS 1982-2006

(As percent of taxable payron)								
		Estimated cos	Total tax					
Calendar year	OASI	DI	HI	Total	rate	Difference <sup>3</sup>		
Alternative II-A:								
1982	10.18	1.33	12.54	14.05	13.40	-0.65		
1983	10.21	1.25	2.68	14.13	13.40	73		
1984	10.22	1.19	2.80	14.21	13.40	81		
1985	10.07	1.13	2.94	14.14	14.10	04		
1986	9.91	1.09	3.08	14.08	14.30	.22		
1987	9.75	1.06	3.21	14.02	14.30	.28		
1988	9.63	1.03	3.37	14.03	14.30	.27		
1989	9.53	1.02	3.52	14.07	14.30	.23		
1990	9.45	1.01	3.68	14.15	15.30	1.15		
1991	9.38	1.01	3.84	14.23	15.30	1.07		
1992	9.35	1.03	4.03	14.40	15.30	.90		

<sup>&</sup>lt;sup>2</sup>Assets of combined trust funds would be insufficient to pay combined benefits when due during part or all of this year.

<sup>3</sup>Between 0.0 percent and 0.5 percent.

<sup>&</sup>lt;sup>4</sup>Between 0.0 percent and -0.5 percent.

<sup>&</sup>lt;sup>5</sup>Assets are projected to be negative, and are projected not to recover before the end of the long-range projection period.

TABLE F2.—ESTIMATED COST RATES OF THE OASI, DI, AND HI PROGRAMS UNDER ALTERNATIVES II-A AND II-B AND COMPARISON WITH TAX RATES, CALENDAR YEARS 1982-2006 (Cont.) [As percent of taxable payroll1]

		Estimated cos	t rate²		Total tax	
Calendar year	OASI	DI	Н	Total	rate	Difference
Alternative II-A: (Cont.)					15.30	.79
1993	9.33	1.04	4.23	14.60		.5
1994	9.29	1.05	4.41	14.75	15.30	.u .4
1995	9.25	1.07	4.59	14.90	15.30	
1996	9.15	1.10	4.76	15.02	15.30	.2
1997	9.07	1.13	4.94	15.14	15.30	.1
1998	9.00	1.16	5.11	15.26	15.30	.0
1999	8.92	1.18	5.26	15.35	15.30	0
	8.82	1.20	5.40	15.43	15.30	1
2000	8.73	1.23	5.54	15.50	15.30	2
2001	8.68	1.25	5.69	15.63	15.30	3
2002		1.28	5.84	15.78	15.30	4
2003	8.66	1.32	6.00	15.97	15.30	€
2004	8.65	1.37	6.18	16.23	15.30	9
2005	8.68	1.37	6.36	16.47	15.30	-1.1
2006	8.72	1.39	0.30	10.47	10.00	
25-year average			4.40	14.86	14.86	
(1982-2006)	9.31	1.16	4.40	14.00	14.00	,
Alternative II-B:				44.00	13.40	9
1982	10.42	1.36	12.60	14.38		-1.0
1983	10.38	1.27	2.75	14.40	13.40	-1.0
1984	10.42	1.21	2.90	14.53	13.40	
1985	10.52	1.18	3.06	14.76	14.10	6
1986	10.55	1.16	3.22	14.92	14.30	6
	10.57	1.14	3.38	15.09	14.30	]
1987	10.56	1.12	3.55	15.24	14.30	9
1988	10.55	1.11	3.74	15.39	14.30	-1.0
1989	10.54	1.10	3.93	15.57	15.30	:
1990		1.10	4.12	15.71	15.30	-,-
1991	10.49		4.33	15.87	15.30	:
1992	10.43	1.11	4.57	16.08	15.30	-
1993	10.39	1.12	4.78	16.24	15.30	-3
1994	10.33	1.13		16.41	15.30	-1.
1995	10.27	1.14	5.00		15.30	-1.
1996	10.18	1.17	5.21	16.56	15.30	-1.
1997	10.07	1.20	5.42	16.69		-1.
1998	9.96	1.23	5.64	16.83	15.30	-1. -1.
1999	9.85	1.25	5.82	16.93	15.30	
2000	9.75	1.28	6.01	17.04	15.30	-1.
	9.66	1.30	6.20	17.16	15.30	-1.
2001	9.58	1.32	6.40	17.29	15.30	-1.
2002	9.52	1.35	6.60	17.47	15.30	-2.
2003		1.39	6.80	17.68	15.30	-2.
2004	9.48	1.44	7.03	17.97	15.30	-2.
2005	9.50		7.26	18.26	15.30	-2.
2006	9.53	1.46	1.20	10.20	10.00	-
25-year average		4.00	44.04	16.18	14.86	-1.
/1092-2006\	10.14	1.23	44.81			

'Effective taxable payroll is slightly different for OASDI compared to HI, due to the different tax treatment of self-employment earnings. The difference does not materially affect the comparisons.

The pattern of projected OASI and DI cost rates for the balance of this century has already been discussed in this report. The HI costs as a percentage of taxable payroll are projected to continue increasing throughout this period under both alternatives II-A and II-B, for reasons described in the HI Annual Report. Total OASDI and HI costs would also increase from their current level of about 14 percent of taxable payroll, reaching 16.47 percent by the year 2006 under alternative II-A and 18.26 percent under alternative II-B.

Under alternative II-A, projected total cost rates for OASDI and HI combined exceed the combined employee-employer tax rates until 1986. Tax income would then exceed expenditures until about the year 2000,

<sup>&</sup>lt;sup>2</sup>Cost rates exclude amounts required for trust fund building and maintenance.

<sup>\*</sup>The difference is the tax rate minus the OASDHI cost rate. Positive differences are referred to as surpluses, and negative differences as deficits.

Differs from corresponding figure shown in HI Annual Report due to exclusion of adjustment for interfund loan in 1982. See HI Annual Report for details of adjustment.

Between 0.000 percent and 0.005 percent.

Note: The definitions of alternatives II-A and II-B, cost rate, tax rate, and taxable payroll are presented in the text.

when annual shortfalls would recur, with annual expenditures exceeding total payroll tax income by increasingly larger amounts in each year. On average, over the 25-year period, scheduled OASDHI tax income equals OASDHI costs under alternative II-A. Under the less favorable economic conditions assumed in alternative II-B, however, combined program costs are projected to exceed total payroll tax income in every year 1982-2006, with the shortfalls increasing in magnitude over time. On average during this period, an actuarial deficit of 1.32 percent of taxable payroll is projected under alternative II-B.

# APPENDIX G.—STATEMENT OF ACTUARIAL OPINION

It is my opinion (1) that the techniques and methodology used herein in evaluating the actuarial status of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds are generally accepted within the actuarial profession; and (2) the assumptions used and the resulting cost estimates are, in the aggregate, reasonable for the purpose of evaluating the financial and actuarial status of the trust funds, taking into consideration the experience and expectations of the program.

Harry C. Ballantyne,
Associate of the Society of Actuaries, Member of the American Academy of Actuaries, Chief Actuary, Social Security Administration