

The Impact of Recent Legislation on Disability
Insurance Benefit Amounts: A Simulation

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ABSTRACT

This paper analyzes the effect on disability benefit costs of three recent changes in the way that Social Security benefits are computed. These changes are: the 1977 amendments which limited replacement rates by "decoupling" the benefit structure; the 1980 amendments which limited maximum family benefits; and the 1981 amendments which eliminated the regular minimum monthly benefit for future beneficiaries. While the changes applied to both disability and retirement benefits, this analysis is limited to their impact on the former.

Three impact measures are used. They are the proportion of beneficiaries whose benefits decreased or increased; differences in median replacement rates; and the average dollar change in the monthly family benefit amount. The approach used is to assume that all the changes were in effect at the time of entitlement for a 20-percent sample of persons awarded benefits in 1978 and 1979. The earnings histories of the sample beneficiaries are used to simulate benefit amounts for each individual before and after each change and the results compared.

The results indicate that the changes being studied reduced disability benefit costs significantly. Annual benefit expenditures for beneficiaries becoming entitled in 1978 or 1979 after all of the changes became effective were 2 billion (estimated), some half billion less than they would have been before their enactment.

These savings reflected the fact that benefits were reduced by the combined impact of the 1977, 1980 and 1981 changes for 91 percent of all beneficiaries studied. The average (mean) change in the cut in family benefits was -\$74.40 per month, 16 percent of the benefits payable prior to the amendments.

Replacement rates (the ratio of benefits to predisability earnings) were also reduced. Median rates fell by 14 percent. The proportion of beneficiaries with "high" replacement rates, those in excess of 80 percent, also fell from 39 to 15 percent based on average lifetime monthly earnings with five dropout years and from 25 to 13 percent when based on the five highest years of earnings.

Generally, the amendments narrowed the existing differences in benefit amounts and replacement rates among various beneficiary subgroups. This was particularly true for beneficiaries of various ages and for those with differing numbers of dependents. Before 1977, average monthly family benefits were two-thirds higher for beneficiaries aged 30-39 than for those aged 60-64 -- \$595.06 for the former compared with \$361.95 for the latter. After the 1981 amendments, benefit amounts for the same two age groups ranged from \$380.16 to \$326.18, respectively--a difference of only 20 percent.

Taken singly, the 1977 amendments affected relatively more beneficiaries and reduced benefit payments the most. Elimination of the minimum benefit had the smallest effect. This pattern was repeated generally for all beneficiary subgroups.

INTRODUCTION

During the 1960's and early 1970's legislative changes in the formula for computing Social Security retirement and disability benefits increased both the level of benefits as well as the rate of replacement of pre-entitlement earnings. The effect was particularly dramatic in the Social Security disability insurance (SSDI) program. Recent research shows that the median rate of replacement of predisability earnings grew from 50.5 percent of average monthly earnings (after wage indexing) for the disabled who became entitled in 1969 to 64.3 percent for those becoming entitled in 1974. 1/ By 1978, the median replacement rate for new entitlements was estimated to be nearly 69 percent. 2/ More striking perhaps is the fact that the proportion of new beneficiaries with "high" replacement rates--80 percent or more of predisability earnings--grew from 18 percent in 1969 to 33 percent in 1974, and to over 38 percent (estimated) by 1978.

It has been suggested that this increase in replacement rates stimulated large numbers of new applications for disability benefits, and may, in part, explain the growth exhibited by the SSDI program during much of the 1970's. Between 1969 and 1978, the number of applicants for benefits skyrocketed from 725,000 to nearly 1.2 million. Higher benefit levels coupled with the larger number of applicants and subsequent allowances also helped to raise total expenditures from the DI trust fund. From 1966 to 1978, payments from the trust fund grew from 2.5 billion to 13.0 billion dollars annually.

Since that time program growth and the growth in benefit expenditures have slackened somewhat. Nevertheless, in 1982, the last year with complete data, over 1 million persons applied for disability benefits, and 298,531 people were granted them. During that year, benefit expenditures totaled 17.3 billion dollars.

Congress' initial response to the rapid growth in program costs was to raise the contribution rate along with the maximum amount of earnings subject to taxation. From 1969 to 1978, the rate of taxation for Social Security Disability Insurance rose from .475 to .775 percent, while the taxable maximum more than doubled from \$7,800 to \$17,700. To some extent, the changes were self-defeating: higher earnings based translated into higher benefit amounts and further raised program costs.

The extended period of inflation during the 1960's and 1970's produced increases in both wages and prices. Rising prices led to legislated cost-of-living increases in the benefit formula, while rising wages led to larger wage bases for calculating benefits. 3/ Combined, these price and wage increases raised the replacement rate for each successive cohort of new beneficiaries rather than to simply compensate for the increased cost of living.

To remedy the growing problem, Congress began to enact legislation to slow the growth in benefit costs. The 1977 amendments to the Social Security Act (P.L. 95-216) were intended to hold down replacement rates. The 1977 amendments "decoupled" the combination of wage and price increases by indexing

only the wages in the workers' wage base prior to the onset of disability by an index based on the average wage for all workers, and by applying cost-of-living adjustments only to persons receiving benefits, thus ending the double adjustment for later beneficiaries. 4/ The 1977 amendments also held down replacement rates by freezing the minimum primary insurance amount (PIA) at its 1979 level of \$122, allowing the minimum PIA to increase to reflect only future changes in the cost-of-living. 5/, 6/

The Social Security Disability Amendments of 1980 (P.L. 96-265) further reduced replacement rates by limiting the maximum family monthly benefit amount (FMBA), and by reducing the number of drop out years allowed for younger workers in the computation of benefits.

The limitation on the FMBA took the form of a cap on the rate at which DI benefits replace predisability earnings. The amendments limited the maximum family benefit payment to 85 percent of an individual's average index monthly earnings (AIME) or 150 percent of the PIA whichever is less, while guaranteeing a benefit not less than 100 percent of the PIA. The amount of an individual's cap is still allowed to increase with the increases in the consumer price index.

Prior to the 1980 amendments, the lowest 5 years of earnings were dropped from the benefit computation. The 1980 amendments changed the number of "dropout" years to one dropout year for each 5 years of earnings after attainment of age 22. The total number of years dropped out was limited to five (5). 7/ This change decreased the number of low earnings years used to compute benefits, particularly for the young.

In addition to the scheduled dropout years, a worker is eligible for one "child care" dropout year for each year the disabled worker is (male or female) had a child under age 3 living in his/her household and the worker did not work in that year. Use of the dropout for child care was limited by the requirement that the combined regular scheduled dropout years and child care years do not exceed 3. Unfortunately, data with respect to potential child care dropout years was not available for the simulation. Lack of these data should not have a large impact on the results in this paper since less than 10 percent of the entitlements of either sex would be in the age group to which these provisions apply, and few of those persons would likely be eligible to take advantage of the provision.

Most recently, Congress eliminated the regular minimum benefit of \$122 per month. The law (P.L. 97-35) provided no absolute floor to the level of Social Security payments. Later, the minimum benefit was reinstated, but only for persons entitled before October 1981. The special minimum benefit designed to provide slightly higher benefits for long-term low earners remains in effect. The special minimum benefit is based not on the workers earnings, but on the number of years of covered employment. For each year of covered earnings in excess of 10, and up to 30 the worker is given \$11.50 (1979) in benefits. Thus a worker would need 21 years of covered earnings in order to obtain a special minimum benefit which exceeds the regular minimum benefit.

The Omnibus Reconciliation Act (P.L. 97-35) also provided for Social Security disability benefits to be reduced by the amount received from other governmental programs, except for veterans benefits, means tested benefits and State and local disability benefits earned under Social Security covered employment. The "MEGACAP" extended the current worker's compensation offset to limit the total amount of benefits received from such sources as SSDI, Worker's Compensation, Black Lung, Civil Service Disability Pension, etc., to 80 percent of the worker's average current earnings (ACE). 8/ SSDI benefits are reduced by one dollar for each dollar that total benefits exceed 80 percent of ACE. The act also extended the Worker's Compensation offset to persons aged 62 to 65. Previously these individuals had been exempt from the worker's compensation offset. Because the Social Security Administration previously did not obtain information with respect to the receipt of other disability income, the administration data employed in this analysis do not contain the data elements necessary to evaluate the impact of the "MEGACAP" provisions contained in this most recent legislative change. The impact of the "MEGACAP" provisions is, however, likely to be small. Estimates prepared by the Congressional Research Service indicate that the "MEGACAP" would be expected to affect fewer than 5,000 new awards (12,000 workers and dependents) during the first fiscal year after its implementation, or fewer than 2 percent of the new awards. 9/

This report analyzes the impact of the 1977 and 1980 amendments and of the elimination of the minimum benefit on the size and distribution of disability insurance benefits. The analysis examines changes in the level of benefits,

and in the rate of replacement of predisability earnings. The distributional aspects of the changes, including the kinds of persons affected and by how much, are also examined.

METHODOLOGY

The study method employed is to simulate monthly family benefits for a sample of new beneficiaries both under the original benefit formula and after application of the changes under study. Administrative earnings records are used to compute benefit amounts in each case. ^{10/} To obtain comparable results, the benefits were calculated using the benefit table in effect on December 31, 1978, and the decoupled formula in effect on January 1, 1979. It was then assumed that each person in the study sample became entitled on January 1, 1979.

This assumption does little more than make the pre- and post-decoupling benefit calculation comparable; it assures that there is no difference in the level of benefits due to the cost-of-living adjustment. The more recent changes from the 1980 amendments and the elimination of the regular minimum benefit were then applied sequentially to be decoupled benefit amount resulting from the 1977 amendments in order to estimate the effect of the changes had they also been in effect on January 1, 1979.

The present research examines the number of persons affected, the size and distribution of benefit reductions, and the change in replacement rates. The replacement rate is defined as the rate at which benefits replace some measure

of earnings. It is calculated, here, as the ratio of the disability benefit (the numerator) to predisability earnings (the denominator), and is expressed in percent.

As calculated here, replacement rates are imperfect indicators of the "true" rate. ^{11/} They neglect a number of factors including: earnings above the Social Security taxable maximum; earnings in noncovered employment; the receipt of cash or in-kind benefits other than SSDI, e.g., Medicare, VA pension, private pensions or insurance, etc.; the effect of taxes and work expenses on predisability earnings; changes in the pattern of consumption, e.g., increased medical care expenditures; and the effect of an alteration in the spouse's labor force behavior on family income. ^{12/} Unfortunately, data are not available to measure these factors adequately and to produce a "true" replacement rate.

Two measures of predisability earnings are used to compute replacement rates in this paper. The first is average indexed monthly earnings (AIME) as used administratively in the calculation of SSDI benefits. The definition of AIME was altered in 1980 by limiting the number of dropout years for younger workers. Through the paper the correct AIME measure was used to compute benefits although, in order to maintain consistency in the replacement rate measure, the denominator used in computation of AIME replacement rates, i.e., the measure of predisability earnings, always drops the 5 lowest years of earnings. The AIME measure is intended to reflect lifetime earnings. The second measure used is average monthly earnings in the 5 years of highest

earnings out of the 10 years immediately prior to onset (after wage indexing). The high-5 measure is intended to reflect recent peak predisability earnings levels. The numerator for both replacement rates is the monthly family benefit amount paid under SSDI.

The methodology used in this report estimates the effect of the program changes studied on a cohort of disabled persons who were not actually affected by them in order to answer the question "What if these changes were in place?" When one uses these estimates to make inferences about the effects such legislative changes will have on future beneficiaries, it is important to keep in mind that the analysis assumes no change in the characteristics of successive cohorts of new beneficiaries. If applicants are sensitive to changes in the SSDI benefit amount, one might anticipate somewhat different results than those found here due to the changing characteristics of the beneficiary population.

THE DATA

The data in this study are derived from a 20 percent random sample of persons who were initially entitled to disability benefits in 1978 or 1979. The sample is limited to disabled worker beneficiaries only, and excludes those who were previously entitled. Persons with disability onsets prior to 1956 were also excluded. The resulting sample contains 98,377 unweighted or 491,885 weighted observations. This sample weighted to approximately 92 percent of the expected number of beneficiaries. The data combine information from SSA's Master Beneficiary Record (MBR) and Summary Earnings Record (SER). The MBR contains information about the worker's age, race, sex, date of onset and family

composition (number of dependents). The SER contains data on quarters of coverage earned each year and the individual's annual covered earnings. The combined information was used to carry out the computations necessary to simulate benefit levels (see Appendix A).

THE FINDINGS

Table A below shows the proportion of beneficiaries affected by the three program changes being analyzed. Had the three changes all been in effect at the time beneficiaries in our sample became entitled, 91 percent of them would have received lower benefits. Somewhat fewer than 9 percent would have received higher benefits.

Only the 1977 amendments resulted in higher benefits (14 percent of the sample). The increase in benefits appear to result for workers whose greater earnings occurred many years ago and are thus increased greatly by the index values applied in the AIME calculation legislated by the 1977 amendments. This gains support from the fact that benefit increases predominate among workers in the older age groups (see table 4). In contrast benefits were reduced for 86 percent of the beneficiaries studied.

The impact of the 1980 amendments were considerably less. Benefits were further reduced from post-1977 levels for one-third of the sample. Of the various parts of the 1980 amendments, the change in the number of dropout years reduced benefits for the highest proportion of beneficiaries (21 percent). Lower percentages of beneficiaries were affected by the 150 percent cap on PIA

and the 85 percent limit on AIME. These changes lowered benefits for 17 and 13 percent of beneficiaries respectively. Elimination of the minimum benefit in 1981 had the smallest impact, reducing benefits for only 6 percent of the beneficiaries studied.

TABLE A.--Percent of persons with reductions or increases in monthly family benefits

	<u>Effect on monthly family benefit</u>		
	Reduction	No Change	Increase
Total--all changes combined.....	91.1%	0.1%	8.9%
1977 amendments (decoupling).....	86.1	0.1	13.8
1980 amendments (after decoupling)			
--total.....	32.8	67.2	N.A.
--85% cap on AIME, 100% PIA minimum...	12.7	87.4	N.A.
--150% PIA cap.....	17.1	82.9	N.A.
--change in number of dropout years...	20.6	79.4	N.A.
1977 and 1980 amendments combined.....	88.0	0.1	12.0
Elimination of regular minimum.....	6.0	94.0	N.A.

Table B shows the proportion of persons with benefit increases and reductions according to their pre-amendment benefit amounts. Reduced benefits under the combined legislative changes were most likely for persons with high benefits originally. Benefits were reduced for nearly all of the people with benefits of \$400 or more before the changes. The lowest proportion of beneficiaries with reduced benefits (82 percent) occurred for persons with prior benefits in

the \$300-399 range. The figure was slightly higher for beneficiaries with pre-change benefits less than \$300 per month. Close to 88 percent of them had reduced benefits.

The U-shaped distribution of benefit reductions appears to be the result of the way in which the effects of the 1977 and 1980 amendments interacted with the elimination of the minimum. Both the 1977 and 1980 amendments resulted in higher proportions of persons receiving reductions at higher initial benefit levels. In contrast, the elimination of the minimum affected many more beneficiaries with low benefit levels.

The pattern of increases in benefits was the mirror image of reductions. The proportion of beneficiaries with increases rose with the level of the original benefit to a maximum of 18 percent for benefit levels in the \$300-399 range. Above that level, the proportion of beneficiaries with increases fell as benefit levels rose. Virtually no beneficiary whose original benefit was above \$600 experienced an increase.

Changes in Benefit Amounts

On average, monthly family benefits fell by \$74.35, 16 percent of the pre-1977 amount, as a result of all three program changes combined (table C). Since bigger cuts occurred among beneficiaries with higher benefits to start with, the median decrease in the family benefit was considerably smaller amounting to \$44.60 or 13 percent of the prior amount.

TABLE B.—Percent of persons with increased or reduced benefits according to family benefit amount prior to changes

Type of change	Total	Prior monthly family benefit amount				
		Under \$200	\$200-299	\$300-399	\$400-599	\$600+
Number of persons.....	491,885	58,825	101,120	105,570	137,600	88,770
Total—all changes combined.....	8.9 91.1	9.8 89.8	14.2 85.7	18.0 81.9	3.2 96.8	.2 99.8
1977 Amendments.....	13.8 86.1	39.7 60.2	15.3 84.6	18.9 81.0	5.4 94.5	2.2 97.8
1980 Amendments—Total.....	32.8	9.5	20.2	25.4	25.2	83.1
—85% cap on AIME.....	12.7	4.4	8.2	14.3	13.4	20.1
—150% cap on PIA.....	17.1	1/	1/	1.3	10.2	77.1
—change in dropout year.....	20.6	5.1	14.3	17.4	18.3	45.4
1977 and 1980 amendments combined.....	12.0 88.0	35.7 64.8	14.2 85.7	18.0 81.9	3.2 96.8	.2 99.8
Elimination of regular minimum.....	6.0	47.2	12.0	.1	1/	0

1/ less than .05 percent.

TABLE C.--Average change in benefit amount in dollars and percent of prior benefit amount

<u>Among all beneficiaries</u>	<u>Dollars</u>	<u>Percent</u>
Total-All legislative changes	-\$74.35	-16.4%
1977 amendments	-47.00	-10.2
1980 amendments - total	-24.75	-5.0
85% cap on AIME	-3.93	-1.4
150% cap on PIA	-16.76	-2.6
Change in dropout years	-5.27	-1.3
1977 and 1980 amendments combined	-71.75	-14.5
Elimination of the minimum	-2.60	-2.1
<u>Among beneficiaries affected by provisions</u>		
Total-all legislative changes	-\$74.47	-16.4%
1977 amendments	-47.05	-10.2
1980 amendments - total	-75.46	-15.4
85% cap on AIME	-30.94	-11.0
150% cap on PIA	-98.01	-15.2
Change in dropout years	-25.58	-6.3
1977 and 1980 amendments combined	-71.75	-14.5
Elimination of the minimum	-43.33	-35.0

Table 1 indicates that large reductions (over \$150 per month) occurred for 17 percent of the beneficiaries studied. The majority of the sample (56 percent) would have experienced cuts between \$10 and \$75 per month. Over one-quarter of the sample had reductions in excess of 25 percent of their original benefit while 3 percent lost more than one-half of those benefits (table 2).

Benefit increases, when they did occur, were much smaller. Close to half of the increases were less than \$10 a month. Another 36 percent were between \$10 and \$24 a month.

Looking at the changes separately, the largest average reduction in benefits--\$47.00 or 10.2 percent--resulted from the 1977 amendments. The reductions under the 1980 amendments and the elimination of the minimum were smaller, averaging \$24.95 (5.0 percent) and \$2.60 (2.1 percent), respectively. Among those persons whose benefits were reduced by the 1980 amendments, the average cut was \$75.46 or 15.4 percent, larger than resulted from the 1977 amendments. Elimination of the regular minimum benefit reduced benefits an average of \$43.33 or 35 percent, looking only at persons who were affected.

On the average the amount of the dollar reduction in family benefits generally rose with the size of the prior benefit amount (table D). Persons with original family benefits of \$600 a month or more averaged reductions of \$208. In contrast, cuts for those with original benefits below \$300/month ranged from \$31 to \$37 a month on the average.

TABLE D.--Average dollar change in benefit by monthly family benefit amount prior to legislative changes ^{1/}

Legislative Change	Total	Prior monthly family benefit amount				
		Under \$200	\$200-299	\$300-399	\$400-599	600+
Total-1977 and 1980 amendments and elimination of regular minimum.....	-\$74.40	-\$37.07	-\$31.27	-\$38.55	-\$63.38	-\$207.66
1977 amendments.....	-47.00	-12.71	-23.39	-28.70	-52.17	-110.34
1980 Amendments - total.....	-24.75	-3.38	-7.55	-9.84	-11.21	-97.32
--85% cap on AIME.....	-3.93	-3.18	-5.77	-6.03	-2.18	-2.87
--150% cap on PIA.....	-16.76	<u>2/</u>	<u>2/</u>	.22	-5.34	-84.29
--Change in number of dropout years..	-5.27	-.67	-1.83	-3.09	-4.42	-15.76
1977 and 1980 amendments combined....	-71.75	-15.91	-30.95	-38.55	-63.38	-207.66
Elimination of regular minimum.....	-2.60	-21.17	-.32	-.01	0	0

^{1/} Table includes persons with no benefit change in table.

^{2/} less than \$.005.

As a percent of the pre-change benefit amount, the highest cut occurred for persons with the smallest benefit amounts and averaged almost 26 percent (table E). This relatively large decrease was attributable mostly to the elimination of the minimum benefit. 13/ The smallest percent change (a 11 percent reduction) in benefits occurred for persons whose prior benefit fell in the \$300-\$399 range. Above that level, average reductions increased with the level of benefits to over 26 percent for those with the highest original benefit amounts.

Table F shows the distribution of the percent change in the monthly family benefit amount according to the pre-change monthly benefit. The frequency of larger percentage reductions was greater among persons with high pre-change benefits. One exception to this finding occurs at the minimum benefit level. For these individuals nearly half the beneficiaries (46 percent) had reductions of 50 percent or more. The greatest frequency of increases occurred for persons whose pre-change benefit level fell in the \$300-399 range. Virtually no increases in benefits were found to occur among persons with benefit amounts of \$600 or more.

Replacement Rates

The median rate of replacement (table G) fell by close to 14 percent (from 6.9 to 5.9) based on both lifetime earnings (the AIME denominator) and (from 56 to 49) based on the 5 years of highest earnings as a result of the combined effect of the changes being studied.

TABLE E.--Average percent change in benefit by monthly family benefit amount prior to legislative change 1/

Legislative Change	Total	Prior monthly family benefit				
		Under \$200	\$200-299	\$300-399	\$400-599	600+
Total-1977 and 1980 amendments and elimination of regular minimum.....	-16.4%	-25.7	-12.4	-11.1	-13.1	-26.3
1977 Amendments.....	-10.2	-7.5	-9.4	-8.3	-11.1	-13.9
1980 amendments--total.....	-5.0	-1.8	-3.4	-3.4	-2.7	-14.4
--85% cap on AIME.....	-1.4	-1.5	-2.6	-2.1	-.6	-.5
--150% cap on PIA.....	-2.6	0	0	-.1	-1.1	-12.4
--Change in dropout years.....	-1.3	-.3	-.9	-1.1	-1.2	-2.6
1977 and 1980 amendments combined.....	-14.5	-9.0	-12.3	-11.1	-13.1	-26.3
Elimination of regular minimum.....	-2.1	-17.3	-.2	0	0	0

1/ Tables includes persons with no benefit change in table.

TABLE F.--Distribution of percent changes in monthly family benefit amount from combined changes according to pre-change benefit amount

Pre-change monthly family benefit	Number	Total	Reduction					Increase			
			Over 50%	35-49%	25-34%	10-24%	1-9%	No change	1-9%	10-25%	25%+
Total.....	491,885	100.0	3.1	8.6	13.5	35.2	30.6	.3	7.6	1.1	1/
Minimum.....	15,755	100.0	46.2	24.1	12.6	10.5	3.2	.1	1.5	1.2	.5
122-199.....	43,050	100.0	5.0	9.4	13.3	32.9	27.1	.3	9.4	2.4	.3
200-299.....	101,120	100.0	2.4	4.4	7.4	38.3	33.2	.4	12.1	2.0	0
300-399.....	105,560	100.0	.9	5.5	10.3	26.8	38.3	.5	16.0	1.8	0
400-499.....	114,335	100.0	.5	3.3	4.9	42.8	45.9	.2	2.2	.2	0
500-599.....	23,275	100.0	2.0	13.0	25.6	35.5	17.0	.1	6.5	.3	0
600-699.....	24,235	100.0	1.9	14.3	26.6	32.8	23.4	1/	.9	0	0
700-799.....	31,560	100.0	1.3	15.3	27.6	49.8	6.1	0	0	0	0
800+.....	32,995	100.0	1.6	28.0	41.1	29.4	0	0	0	0	0

In toto, the proportion of persons with high replacement rates fell by over 23 percentage points (60 percent) based on AIME and by nearly 13 percentage points (50 percent) based on the high-5 calculation (table G). The 1977 amendments had the largest impact in reducing the proportion of persons with high replacement rates. As a result of those amendments the proportion of beneficiaries with high rates fell by 12.6 and 6.6 percentage points based on the AIME and high-5 measures, respectively. These reductions alone accounted for more than half the total drop in the incidence of high replacement rates resulting from all 3 changes combined. The elimination of the minimum had the least impact on high rates. That is understandable for the AIME measure since persons at the minimum are guaranteed a replacement rate of 90 percent based on the benefit calculation formula. ^{14/} The result based on the high-5 measure is somewhat surprising since the 1.3 percentage point reduction accounts for only 10 percent of the total reduction in the incidence of high replacement rates.

Table H presents the average percentage point change in replacement rates by the level of pre-change rates. Under both the AIME and high-5 replacement rate formulations fell more on the average among persons with higher replacement rates, originally, than among those with lower rates. Based on the AIME measure, for example, the average reduction ranged from 3.4 percentage points for persons with replacement rates of 40-59 percent to a reduction of 35.7 points for persons with rates in excess of 200 percent (persons originally receiving minimum benefits).

TABLE G.--Change in replacement rates: Median rates and percent in excess of 80 percent

	<u>Median</u>		<u>Over 80 percent</u>	
	<u>AIME</u>	<u>High 5</u>	<u>AIME</u>	<u>High 5</u>
After all legislative changes.....	58.8	48.5	15.4	12.5
Prior to any legislative changes....	68.7	56.2	38.5	25.4
After 1977 amendments.....	60.6	51.2	25.9	18.8
After 1977 and 1980 amendments.....	58.9	49.3	15.8	13.8
After 1977 and 1980 amendments and elimination of minimum.....	58.8	48.5	15.4	12.5

At least part of this pattern is explained by differences in the proportion of persons experiencing reduced replacement rates. As shown in table I, the proportion of beneficiaries with reduced replacement rates tended to rise with the level of the pre-change rate, at least based on the AIME measure. The proportion of persons with reductions rose from 0 percent for persons with original replacement rates below 40 percent to 100 percent for those with rates of 100 percent and over. Based on the high-5 measure, the proportion receiving reductions was fairly constant varying between about 90 and 93 percent.

Differences by Demographic Characteristics

In this section the effects of the changes on various beneficiary subgroups are examined. Effects are compared for men and women, for whites and persons of other races, for young and old beneficiaries, and for family size as measured by the number of dependents receiving auxiliary benefits.

TABLE I.—Proportion of persons receiving increases and decreases in replacement rates by level of replacement rate prior to changes

Type of change	Total	Under 40						200+
		40-59	60-79	80-99	100-139	140-199		
Based on AJME denominator								
Total-all legislative changes	8.9	87.9	8.1	2.0	0	0	0	0
Increase	91.1	0	91.7	97.9	100.0	100.0	100.0	100.0
Decrease	6.0	0	0	.9	16.3	58.5	99.6	99.6
Elimination of regular minimum	12.0	87.9	8.1	2.6	5.9	29.6	71.7	71.7
1977 and 1980 amendments combined	88.0	0	91.7	97.4	94.1	70.4	28.3	28.3
1980 amendments	32.8	0	26.4	68.2	63.0	53.8	28.3	28.3
1977 amendments	13.8	87.9	10.4	6.3	7.0	32.8	90.2	90.2
Decrease	86.1	0	89.3	93.6	92.9	67.2	9.8	9.8
Based on high 5 years of earnings of previous 10 years								
Total-all legislative changes	8.9	5.8	9.3	8.2	9.9	7.2	8.0	8.0
Increase	91.1	90.9	90.5	91.7	90.0	92.8	92.0	92.0
Decrease	6.0	1.5	4.7	6.1	8.8	13.5	40.4	40.4
Elimination of regular minimum	12.0	6.0	11.9	11.9	15.6	15.7	29.1	29.1
1977 and 1980 amendments combined	88.0	90.5	88.0	87.9	84.3	84.3	80.9	80.9
1980 amendments	32.8	2.1	59.1	77.0	70.5	57.4	33.0	33.0
1977 amendments	13.8	6.0	13.9	16.7	21.3	21.7	34.4	34.4
Decrease	86.1	90.5	85.8	83.1	78.5	78.3	65.6	65.6

Sex--Table J shows that the patterns established for all beneficiaries held for both men and women. For both sexes, the 1977 amendments had the greatest impact on the proportion of beneficiaries whose benefits fell, the average amount by which they fell and the resulting decline in median replacement rates.

For the combined changes, the average benefit loss, was \$82.51 for men compared to \$55.48 for women. On the other hand, women experienced larger losses in relative terms. Compared to their original benefit amount, the average loss for women was 19 percent compared to 15 percent for the men. The higher average benefit amounts received by men, generally, explain why they experienced larger average dollar reductions in absolute terms but lost a smaller proportion of their benefits.

Of the changes studied, only the elimination of the minimum affected relatively more women and affected them more adversely than men. Thus, 13 percent of women lost benefits compared with 3 percent of the men. Similarly, monthly benefit amounts declined by \$5.58 for women compared with only \$1.26 for men, on the average. Most of this difference is attributable to the difference in the number of persons of each sex affected. If we look only at people affected by this provision, the average reduction for men was \$45.00 per month which is slightly greater than the \$41.95 exhibited among the women.

Before any of the program changes being studied became effective, women had a median replacement rate (77.6) which was one-fourth higher than that for men (62.5) based on lifetime earnings but about the same (55.4 vs. 56.7) based on

TABLE J.--Selected measures of the effects of the 1977 and 1980 amendments and of the elimination of the minimum benefit by sex

Legislation	Percent of persons with reduced benefits		Average benefit reduction ^{1/} (in dollars)	
	Male	Female	Male	Female
Total-all changes combined	89.8%	93.9%	-\$82.81	-\$55.48
1977 amendments	86.3	85.6	-51.21	-37.61
1980 amendments	36.2	25.2	-30.34	-12.28
Elimination of regular minimum	2.8	13.3	-1.26	-5.58

	Median replacement rate AIME denominator		Percent of beneficiaries with high replacement rates AIME denominator	
	Male	Female	Male	Female
Prior to any changes	62.5%	77.6%	34.5%	47.3%
After all changes combined	54.3	65.7	9.1	29.7
After 1977 amendments	56.2	67.9	21.0	36.8
After 1980 amendments	54.3	65.8	9.3	30.3
After elimination of regular minimum	54.3	65.7	9.1	29.7

^{1/} Includes entire sample in computations, not only those affected by provisions.

the high 5 years of earnings (table 5). Similarly, as shown in table 6, a larger proportion of women than men had high replacement rates (47 vs. 34 percent) based on the AIME replacement rate, although there was no difference for the high-5 measure (both 25 percent). This pattern in male/female replacement rates can be explained partly by differences in labor force attachment between the sexes. Women tend to have frequent interruptions in labor force participation particularly during the child bearing and child rearing years. Those years of absence tend to depress lifetime earnings and hence raise replacement rates based on this measure. In contrast, recency of work requirements (e.g., 20 of past 40 quarters) to be insured for disability benefits will tend to equalize replacement rates based on the high-5 of the previous 10 years of earnings. This effect will, however, only serve to ameliorate the effect of lower earnings among women.

The combined effect of all three changes on replacement rates was fairly substantial. Median rates fell by about the same amount under both measures used in this paper. Median rates declined 13 percent for men (from 62.5 to 54.3) and 15 percent for women (from 77.6 to 65.7). Nevertheless, 1981 median replacement rates for women were still 11 percentage points (21 percent) higher than for men based on the AIME measure. The opposite was true under the high-5 measure where median rates for men were about 3 percentage points (6 percent) higher than for women.

The proportion of both men and women with high replacement rates also fell substantially under the combined impact of the 1977, 1980 and 1981 amendments. The proportion of men with rates of 80 percent or more was reduced by three quarters, from about 35 percent to 9 percent, based on the AIME denominator, and by more than half, from about 26 percent to 12 percent, based on high-5. The changes were less dramatic for women. Based on lifetime earnings, the proportion of women with high rates dropped by almost half to slightly less than 30 percent, while the proportion of women with high rates based on the five highest years of earnings fell from 25 percent to somewhat over 13 percent.

Race--For all the program changes combined, the results by race show that a slightly smaller percentage of whites (90.7) than of blacks (92.6) or other racial minorities (94.1) experienced benefit decreases (table K). This difference is mainly attributable to the effect of the 1980 amendments and elimination of the minimum which affected substantially smaller proportions of whites than of nonwhites. In fact, there was very little difference by race in the impact of the 1977 amendments. Benefits were cut for 86 percent of whites compared with 84 percent of blacks and 87 percent of other minorities.

In contrast, the 1980 amendments reduced benefits for 31 percent of whites compared with 40 percent of blacks and 44 percent other minorities. Similarly the proportion of whites affected by elimination of the minimum benefit was half as large as that for all other races, 5 and 10 percent respectively.

The average dollar reduction in benefits from the combined changes was smaller for whites (-\$73) than for blacks (-\$78) and other minorities (-\$94). The average change in benefits as a percent of the original benefit amount was also consistently smaller for whites than for other races. Average benefits for whites from all legislative changes combined were reduced by 15.7 percent, about three-quarters the figures for other racial groups.

Prior to the legislative changes examined here both blacks and persons of other races had median replacement rates 15 percentage points higher than whites based on AIME and 10 percentage points higher based on the high-5 measure (table 5). While the combined changes reduced median replacement rates among the races. Whites continued to have lower median rates than blacks and others: 56.9 after the changes for whites compared to 65.5 and 63.7 for blacks and others, respectively. The size of the difference in median rates between whites and other racial groups declined from about 16 percentage points to less than 9 percentage points.

The proportion of persons with high replacement rates was about 50 percent larger (based on either replacement rate calculation) for blacks and other races than for whites prior to any of the legislative changes. Table K shows, for example, that 35.8 percent of the whites had high replacement rates based on the AIME measure compared to 51.3 and 52.4 percent for blacks and other races, respectively. The combined impact of the three changes under study

TABLE K.--Selected measures of the effects of the 1977 and 1980 amendments and of the elimination of the minimum by race

Legislation	Percent of persons with reduced benefits			Average benefit reduction ^{1/} (in dollars)		
	White	Black	Other	White	Black	Other
Total--all changes combined	90.7%	92.6%	94.1%	-\$73.13	-\$77.92	-\$93.88
1977 amendments	86.4	84.3	87.3	-46.68	-46.65	-59.37
1980 amendments	31.2	40.1	44.0	-24.27	-26.56	-30.41
Elimination of regular minimum	5.2	10.4	9.6	-2.19	-4.71	-4.09

	Median replacement rate (AIME denominator)			Percent of beneficiaries with high replacement rates (AIME denominator)		
	White	Black	Other	White	Black	Other
Prior to any changes	65.7%	81.2%	81.9%	35.8%	51.3%	52.4%
After all changes combined	56.9	65.5	63.7	13.4	26.0	23.6
After 1977 amendments	58.4	71.9	70.1	23.1	40.3	37.5
After 1980 amendments	57.0	65.6	63.8	13.7	26.4	23.9
After elimination of regular minimum	56.9	65.5	63.7	13.4	26.0	23.6

^{1/} Includes entire sample in computations, not only those affected by provisions.

reduced the incidence of high replacement rates among all racial groups. Here again, however, the changes did not completely eliminate the differences between races. A smaller proportion of whites than of blacks and other races still had high replacement rates. In fact, based on the AIME measure the disparity became relatively larger; the incidence of high rates among blacks and other races was nearly twice that for whites (26.0 and 23.6 percent compared to 13.4 percent).

Age--Even before enactment, the program modifications discussed were anticipated to affect young and old beneficiaries differently. The 1977 amendments were expected to lower benefits more for younger workers than for older workers due to the indexing of earnings. The 1980 amendments were also designed to reduce benefits more for the young by limiting the number of dropout years. Finally, the elimination of the minimum could also be expected to lower benefits most among the youngest age groups since earnings tend to rise over the lifetime and labor force attachment tends to strengthen with age, particularly for males.

The data (table L) show that the expected results occurred. When the combined effects are considered, the proportion of beneficiaries with reduced benefits declined monotonically with age. All beneficiaries under age 40 experienced benefit reductions compared with 97 percent of those aged 40-49 and 87 percent of those age 60 and over.

TABLE L.--Selected measures of the effects of the 1977 and 1980 amendments and of the elimination of the minimum benefit by age

Legislation	Percent of persons with reduced benefits					Average Benefit Reduction 1/ (in dollars)						
	30	30-39	40-49	50-54	55-59	60-64	30	30-39	40-49	50-54	55-59	60-64
Total - all changes combined	100.0%	100.0%	96.9%	90.4%	87.9%	86.9%	-\$149.56	-\$214.91	-\$112.70	-\$58.08	-\$43.42	-\$35.79
1977 amendments.....	94.5	98.7	91.6	84.5	83.4	81.2	-112.93	-128.19	-60.54	-32.25	-28.49	-26.62
1980 amendments.....	49.4	98.7	82.4	27.0	14.4	6.9	-30.29	-85.56	-50.38	-23.62	-12.87	-5.91
Elimination of regular minimum.....	13.4	2.9	4.8	5.7	4.8	7.0	-6.63	-1.17	-1.78	-2.21	-1.96	-3.25

	Median Replacement Rate (AIME denominator)					Percent of beneficiaries with high replacement rates (AIME denominator)						
	30	30-39	40-49	50-54	55-59	60-64	30	30-39	40-49	50-54	55-59	60-64
Prior to any changes.....	96.3	94.4	85.4	69.4	57.0	56.5	70.2	70.8	61.3	38.4	25.7	22.6
After all changes combined.....	64.3	61.1	65.9	61.7	52.7	51.9	26.7	1.7	17.0	19.0	14.0	15.2
After 1977 amendments.....	71.5	76.1	75.8	63.7	52.7	51.9	40.4	42.0	40.5	27.4	18.2	17.2
After 1980 amendments.....	64.5	61.2	65.9	61.7	52.7	51.9	27.6	3.4	17.8	19.0	14.0	15.2
After elimination of regular minimum....	64.3	61.2	65.9	61.7	52.7	51.9	26.7	1.7	17.0	19.0	14.0	15.2

1/ Includes entire sample in computations, not only those affected by provisions.

Benefit amounts were also reduced substantially, and to a greater extent, among younger beneficiaries. The largest average change in benefit levels (-\$215.00) occurred for persons age 30-39. The average reduction then decreased monotonically with increasing age to a minimum of \$36 for those aged 60 and over. As a percent of benefit amounts prior to the changes, the average change in benefit level also declined with increasing age from over 36 percent for the youngest group to less than 11 percent for the oldest age group.

The largest decreases in benefit levels for the young resulted not from the change in the number of dropout years in the 1980 amendments, but rather from the decoupling of benefits in the 1977 amendments (table L). In fact, among those persons under 30, nearly twice as many persons were affected by the 1977 changes as by the 1980 amendments. The average benefit change for this age group was nearly four times as large under the 1977 amendments (-\$112.93) as under the 1980 amendments (-\$30.29). Even when only those persons affected by the changes were considered, the average reductions resulting from the 1977 changes were nearly twice as large (-\$112.93 vs. -\$61.32) as those from the 1980 amendments. While the elimination of the regular minimum benefit affected beneficiaries under age 30 the most, the impact was relatively small. Only 13 percent of beneficiaries in this age group were affected and suffered a decrease of -\$6.63 in their benefits on the average.

Pre-change replacement rates, as measured by the median rate and the proportion of beneficiaries with high rates, also tended to decline with age (table L). In fact, the median rate before 1977 based on the AIME was over 70 percent

higher for persons under 30 (96 percent) than for those 60-64 (56 percent). Based on the high-5 measure the median rate was more than 3 times as large (155 percent vs. 48 percent) for the youngest age group compared to the oldest (table 5).

The total effect of the program changes studied was to reduce and equalize median rates of replacement. Although rates continued to be lower generally among the older age groups, the magnitude of the difference in median replacement rates between the young and old declined substantially. For example, as indicated earlier, beneficiaries under age 30 had median replacement rates, based on lifetime earnings, of 96 percent prior to the changes compared to 56 percent of those aged 60-64. After the changes, the difference was only 12 percentage points--64 percent for persons under 30 compared to 52 percent for persons 60-64.

The amendments also reduced the incidence of high replacement rates more for younger beneficiaries. Prior to the 1977 changes, the youngest age groups had more than 3 times high AIME replacement rates were more than 3 times more likely among young beneficiaries than for the oldest age group (70.2 percent vs. 22.6 percent). After 1981 the rate was less than twice as large (26.7 percent vs. 15.2 percent).

One of the most striking results in the finding that for persons aged 30-39 high replacement rates based on lifetime earnings virtually disappeared. The proportion of such beneficiaries with high rates dropped from 71 percent to under 2 percent. The largest drop in high replacement rates based on the high-5 years of earnings also occurred for that age group.

Number of dependents--Number of dependents is measured in this paper by the number of persons receiving auxiliary benefits on the disabled worker's record. The Social Security law provides for benefits to dependents at a rate equal to 50 percent of the worker's PIA subject to the family maximum. The 1977 amendments reduced dependents benefits by changing the formula for the computation of the family maximum. Further reductions flowed from the 1980 amendments which placed a cap on family benefits at 85 percent of the worker's AIME or 150 percent of the worker's PIA while guaranteeing 100 percent of the PIA. Elimination of the minimum per se did not affect the amount of dependents' benefits because, as a practical matter, the 85 percent cap on AIME in the 1980 amendments eliminated the payment of dependent's benefits for persons at the minimum benefit level. Table M shows various measures of the effect of all of the changes according to family size.

The combined effect of these changes was to reduce benefits for a higher proportion workers with dependents than worker-only beneficiaries. Where as benefits were cut for 88 percent of worker-only beneficiaries, this proportion rose with the number of dependents to over 99 percent among workers with 2 dependents or more.

The extent to which each of the three changes reduced benefits also varied with the number of dependents. The 1977 amendments were more likely to affect worker only and worker with one dependent groups. For workers with 2 or 3 more dependents, the 1980 amendments had a greater impact. The elimination of the minimum had the smallest impact of the three changes regardless of family size.

TABLE M.--Selected measures of the effects of the 1977 and 1980 amendments and of the elimination of the minimum benefit by numbers of dependents

Legislation	Percent of persons with reduced benefits			Average Benefit Reduction ^{1/} (in dollars)				
	Worker only	1	Worker plus 2	3+	Worker only	1	Worker plus 2	3+
Total - all changes combined.....	88.4%	92.7%	99.2%	99.4%	-\$36.52	-\$83.22	-\$186.90	-\$210.28
1977 amendments.....	83.9	88.9	91.2	93.5	-31.29	-60.33	-84.81	-102.74
1980 amendments.....	11.4	45.3	100.0	100.0	-2.01	-21.12	-101.20	-106.77
Elimination of regular minimum.....	7.3	4.5	2.5	2.1	-3.23	-1.77	-0.89	-0.78

	Median replacement rate (AIME denominator)			Percent of beneficiaries with high replacement rates (AIME denominator)				
	Worker only	1	Worker plus 2	3+	Worker only	1	Worker plus 2	3+
Prior to any changes.....	55.5	79.3	92.5	95.5	21.1	47.8	91.8	95.0
After all changes combined.....	49.4	68.9	67.9	67.4	14.2	25.2	16.6	14.3
After 1977 amendments.....	49.7	69.9	82.4	82.4	14.8	32.2	61.0	60.9
After 1980 amendments.....	49.4	68.9	67.9	67.4	14.5	25.6	17.0	14.7
After elimination of regular minimum....	49.4	68.9	67.9	67.4	14.2	25.2	16.6	14.3

^{1/} Includes entire sample in computations, not only those affected by provisions.

The average change in benefit levels for all changes combined also increased with larger family size both in absolute terms and as a percent of the original benefit level. The smallest reduction, slightly less than \$37 (12.3 percent of the prior benefit), occurred for workers without dependents. These figures rose consistently with the number of dependents to -\$210 for workers with 3 or more dependents. Even considering the higher average benefit levels for persons with dependents, the percentage change in benefits was 2 1/2 times as large for workers with 3 or more dependents as for workers with no dependents.

Prior to 1977, the median replacement rate and the proportion of persons with high rates rose with the number of dependents. This pattern reflected the payment of auxiliary benefits based on the worker's PIA. Median replacement rates for workers with three dependents were then about 80 percent higher than the rates for workers with no dependents. The result held for both computational forms used in this paper.

The total effect of the three amendments equalized median replacement rates among beneficiaries with different numbers of dependents as a result of larger cuts for persons with larger numbers of dependents (table 5). After the changes, the number of dependents made no significant difference in median replacement rates among groups with one or more dependents. Under either AIME or high-5 calculations, median replacement rates for persons with dependents were still nearly 40 percent larger than for beneficiaries with no dependents, but this difference did not vary by family size.

The combined effect of all the changes also reduced the proportion of persons with high replacement rates regardless of the number of dependents, although decreases were higher for larger families. For beneficiaries with no dependents, the proportion with high AIME replacement rates fell from 21 percent to 14 percent compared to a drop from 48 percent to 25 percent among those with a single auxiliary, and a drop from 95 percent to 14 percent among persons with 3 or more auxiliaries. Prior to the 1977 changes, the incidence of high replacement rates increase monotonically with the number of dependents receiving benefits. After 1981, the incidence of high rates was highest for disabled workers with one dependent and declines thereafter with each additional dependent. Workers without dependents still had the lowest incidence of high replacement rates. The reason for lower proportions with high replacement rates among DIB's with multiple auxiliaries is not clear. This result is probably attributable to differences in earnings histories and not a direct result of the program changes.

Impact on Differences in Monthly Benefit Amounts

Clearly the amendments which are the subject of this report not only lowered benefit amounts generally but also tended to narrow substantially pre-existing differences in average benefits among selected beneficiary subgroups (table N). Before 1977, the average family benefit for the population of beneficiaries studied was \$415.88 per month. By the time the 1977, 1980 and 1981 amendments (elimination of the minimum) took effect the AMFB had fallen to \$341.53, some 18 percent less. More than four-fifths of this decrease was due to the 1977 amendments alone.

Similar decreases resulted for various beneficiary subgroups. However, table N shows that decreases were larger for women, for nonwhites, for older beneficiaries, and for larger beneficiary families.

To illustrate the collective impact of the 1977, 1980 and 1981 amendments an average monthly family benefits,

-- benefit amounts for women fell by 19 percent compared with 17.5 percent for men

-- reductions were 21 percent for blacks contrasted with 17 percent for whites

-- beneficiaries under age 40 lost somewhat more than one-third of their pre-change benefits compared with only 10 percent for those aged 60-64

-- payment amounts were reduced by 30 percent for beneficiaries with 3 or more dependents compared with 11 percent for worker only units.

Significantly, the bulk of these reductions resulted from the decoupling changes in the 1977 amendments. In fact, those amendments accounted for 60 to 85 percent of benefit decreases for each of the beneficiary subgroups studied with one exception. The sole exception was workers with 3 or more dependents; for them, the 1977 and 1980 amendments each accounted for 40 percent of the total reduction.

TABLE N.--Average monthly family benefit amount prior to and after legislative changes by selected beneficiary characteristics
(In dollars)

Program change	Sex				Race			Age			Number of dependents						
	Total	Male	Female	White	Black	Other	Age			Number of dependents							
							30-39	40-49	50-54	55-59	60-64	Worker only	Worker Plus	3			
Prior to any changes.....	\$415.88	\$472.47	\$289.59	\$425.52	\$363.73	\$391.92											
After all changes combined.....	341.53	389.66	243.12	352.39	285.81	298.04											
After 1977 amendments.....	368.88	421.26	251.98	378.84	317.08	332.55											
After 1980 amendments.....	352.13	398.03	249.67	361.62	302.81	317.28											
After elimination of regular minimum....	341.53	389.66	234.12	352.39	285.81	298.04											
Program change	30	30-39	40-49	50-54	55-59	60-64	Worker only	1	2	3							
Prior to any changes.....	\$408.38	\$595.06	\$488.86	\$408.62	\$389.02	\$361.95	\$324.61	\$533.28	\$660.57	\$685.16							
After all changes combined.....	258.81	380.16	376.16	350.54	345.70	326.18	288.09	450.06	473.67	474.87							
After 1977 amendments.....	295.46	466.88	428.32	376.37	360.53	335.34	293.33	472.96	575.77	582.42							
After 1980 amendments.....	283.97	423.24	391.79	356.65	349.50	330.41	293.33	472.96	494.57	500.08							
After elimination of regular minimum....	258.81	380.16	376.16	350.54	345.70	326.18	288.09	450.06	473.67	474.87							

As detailed earlier in this paper, the impact of the 1977, 1980 and 1981 amendments varied quite a bit among beneficiary subgroups. As a result, the ratio of the average monthly benefit payable to men and women, to whites and blacks, to the young and old, and to beneficiaries with and without dependents before the changes took effect also changed substantially. The changes in these ratios are summarized in the following table--

<u>Ratio of average monthly family benefit</u>	<u>Before 1977</u>	<u>After all changes</u>
Male/Female	1.63	1.66
White/Black	1.17	1.23
Under age 30/Age 60-64	1.13	.79
Age 30-39/Age 60-64	1.64	1.17
3 or more dependents/worker only	2.11	1.65

Clearly, the differences in average monthly family benefits by age and family size were reduced substantially. On the other hand, the gap between men and women and between whites and blacks widened somewhat.

The widening gap between men and women and blacks and whites appears to be attributable, at least partly, to the fact that women and blacks tend to have higher replacement rates (though lower benefits) than men and whites. Since one of the goals has been to hold down replacement rates (e.g., cap on replacement rates in the 1980 amendments) one might expect those groups with high replacement rates to receive relatively larger cuts. The narrowing gap between beneficiaries of differing ages and numbers of dependents is similarly

explained because those groups with higher replacement rates (the young and those with multiple dependents) also have large benefit payments. The current analysis does not control for interactions between demographic characteristics and these interactions (e.g., between age and race or between sex and number of beneficiaries) may also partially explain these results.

CONCLUSION

The foregoing analysis demonstrates that, had the 1977 and 1980 amendments and elimination of the minimum benefit been in effect at the time of entitlement for the beneficiaries in the study, substantial savings would have been generated for the disability insurance trust fund since 91 percent of the sample would have received smaller benefit amounts, compared to fewer than 9 percent with increases. The average monthly benefit amount would have been reduced by \$74.40.

The three changes analyzed also met the goal of reducing replacement rates, particularly for persons with rates which are considered excessive. Regardless of how computed, the median replacement rate dropped from 68.7 percent to 58.8 based on lifetime earnings and from 56.2 to 48.5 percent based on the 5 years of highest earnings. The proportion of beneficiaries with replacement rates, more than 80 percent, was reduced from 38.5 percent to 15.4 percent based on lifetime earnings, and from 25.4 percent to 12.5 percent based on the 5 years of highest earnings.

The 1977 amendments had the largest impact on beneficiaries and that result held for all measures studied: the proportion receiving benefit reductions, the average benefit reduction and measures of replacement rates. Part of this result is attributable to a larger proportion of beneficiaries being affected by the 1977 amendments, but one finds that even among only those beneficiaries affected by the provisions of the legislative changes it was still the 1977 amendments which had the greatest impact. In most respect the elimination of the regular minimum benefit had the least impact, mainly due to the small (6 percent) portion of beneficiaries affected.

The legislative changes were also examined to see their impact on beneficiary subgroups; according to various demographic characteristics including age, sex, race; and the number of auxiliary beneficiaries or dependents. The results show that benefits were reduced for higher proportion of males and racial minorities (blacks and other races). The proportion of persons with reductions decreased with age, but increased with the number of dependents. Average dollar changes in benefit amounts were larger for men than women. Other races were found to have the largest dollar changes in benefits, followed by blacks whose average change was only slightly greater than that of whites. Thus, while benefit amount differences narrowed between men and women, the differential increased between whites and both blacks and other races. The average benefit reduction was greatest for persons aged 30-39, followed by those under 30. For persons age 40 and over the average change was a reduction that declined with increasing age. The average dollar benefit change was found to increase monotonically with the number of dependents.

The legislative changes tended to reduce median replacement rates more among groups with higher median replacement rates to begin with. This, in effect, lessened the differences in median replacement rates among persons of differing characteristics. In terms of reducing the incidence of high replacement rates, it was not necessarily true that those groups with the greater incidence of high replacement rates were those more likely to receive reductions in the incidence of high replacements. Although women had a greater incidence of higher replacement rates and blacks and other races a greater incidence than whites, it was the men and whites who had greater reductions in the incidence of high replacement rates. On the other hand, the young and persons with multiple auxiliaries tended to have higher initial rates of receipt of high replacement rates, and these groups had the largest reductions. Thus, the difference in the incidence of higher replacement rates between the sexes, and between the races were increased by the legislative changes, but the differences by age and number of dependents were reduced.

The implications of this research are clear. After peaking in 1979, the level of the monthly benefit amount for the average disability insurance entitlement should, neglecting changes in the cost of living, decline by over 16 percent. This combined with decreasing rates of applications and allowances for DI benefits and new administrative oversight including federal post-adjudicative reviews and continuing disability investigations ought to help assure the fiscal soundness of the DI trust fund in the future.

Footnotes

1/ Muller, L. S. and Lando, M. E., Replacement of Earnings of the Disabled Under Social Security Levels and Trends 1969-1975, Research Report No. 53., Office of Research and Statistics, June 1980.

2/ The replacement rate cited for 1978 is based on the AIME measure which drops the 5 years of lowest indexed earnings. The replacement rate cited for 1969 is based on an average indexed monthly earnings measure without dropout years. The use of the AIME measure results in a somewhat lower replacement rate because the earnings measure would be slightly higher. This makes the latter estimate a conservative estimate of the earlier replacement rate and may actually understate the growth in replacement rates over this period.

3/ The average monthly earnings (AME) was used as the basis for determining a workers primary insurance amount prior to December 31, 1978. The average is computed by (1) calculating the workers creditable earnings after 1950 (or the year he reaches age 21) and up to the year of attainment of age 62 or of death or onset of disability, (2) omitting up to five years of lowest or zero earnings; and (3) dividing the cumulative amount by the number of elapsed months during the same period. An alternative computational method takes into account the workers earnings after 1936. The method yielding the higher amount is used.

4/ Average indexed monthly earnings (AIME), which is the current basis for benefit computation, is similar to the above calculation with the exception that each years earnings are wage indexed to the level existing at two years prior to retirement, death, or onset of disability. Earnings are indexed by multiplying the posted earnings for each year after 1950 through the indexing year by the average wage of all workers for the indexing year and dividing by the average wages of all workers for the year being indexed. This, in theory, corrects for both price level and productivity changes. The underlying assumptions are that wages have kept pace with inflation and the composition of the labor force has not changed.

5/ Primary Insurance Amount (PIA) is the monthly amount that would be payable to a retired worker who begins to receive his benefit at age 65 or to a disabled worker. This amount, which is related to the workers AIME (or AME prior to 1979), is also the amount used as a based for computing dependents' and survivor benefits payable on the basis of an individual's earnings record. Discussion of the computation of the PIA is found in Appendix A.

6/ The special minimum PIA, which provides a somewhat higher level of benefits for long term, low paid workers, was, however, increased somewhat and may result in a slightly higher benefit amount for qualified individuals. The special minimum benefit will also be increased automatically with changes in the cost-of-living. The method of computation of the special minimum appears in Appendix A.

7/ This allows no dropout years for persons under age 27, a single drop out year for persons aged 27 through 31, two persons 32 through 36, three for persons 37 through 41, four for persons 42 through 46 and five for those 47 and over.

8/ Average current earnings is defined as the largest of: (A) the average monthly wage (as computed prior to January 1979; i.e., average monthly earnings), (B) one-sixtieth of the total of his wages and self-employment income (computed without regard to the social security taxable maximum) for five consecutive calendar years after 1950, or (C) one-twelfth of the total of his wages and self-employment income (computed without regard to the social security taxable max) for the calendar year in which he had the highest wages and income during the period consisting of the calendar year in which he became disabled and the five years preceding that year.

9/ Koitz, Dave, "Social Security Disability: Budget and Financing Proposals," Issue Brief, No. IB81110, Library of Congress, Congressional Research Service.

10/ The "original benefit formulation" is the new start method with no workers compensation offset and without military credits prior to 1956 which are not posted.

11/ For a more complete discussion of the concept of replacement rates and the issues involved in the construction of replacement rates see Muller, L. S. and Lando, M. E., "Replacement of Earnings of the Disabled Under Social Security: Levels and Trends 1969-1975." ORS Research Report No. 53, June 1980.

12/ The effect of changes in the labor force behavior of other family members on income is ambiguous. It may increase income if these members begin working or increase their hours or it may reduce family income if a member is required to stay at home and supply home nursing services.

13/ The reader will note that benefit reductions occur in prelegislative change benefit amounts as high as \$300-\$349. These persons were obviously pushed to the minimum benefit by either the 1977 decoupling legislation or by the 1980 reduction in the number of dropout years.

14/ The computational formula from the 1977 amendments (appendix A) attaches a factor of 90 percent to AIME's up to \$180, which includes the minimum benefit. Nine percent of AIME, then is the guaranteed replacement rate for these individuals and is considered a "high" rate of replacement in this study.

Appendix A

Computation of Benefit Amounts

The computation of benefits based on the method in effect until December 31, 1978 uses the workers average monthly earnings (AME) and is determined from a published table of AME's and the corresponding PIA's and maximum family benefit amounts. The table may be obtained from the Social Security Handbook. The "undecoupled" benefit amounts employed in this analysis are taken directly from the table. The minimum PIA in effect at that time was \$121.80. A special minimum benefit amount for long term low earners was computed as \$9 per month for each year of coverage in excess of 10 years, but not to exceed \$180 per month (i.e., 30 years of earnings).

As of January 1, 1979, the computational method in effect was based upon average indexed monthly earnings (AIME) and is computed using the following formula:

PIA

90 percent of first \$180 AIME plus
32 percent of AIME from \$180 to \$1,085 plus
15 percent of AIME above \$1,085

Maximum Family Benefit Amount

150 percent of first \$230 of PIA plus
272 percent of PIA from \$230 to \$332 plus
134 percent of PIA from \$332 to \$433 plus
175 percent of PIA over \$433

The minimum PIA was set at \$122 with a special minimum PIA of \$11.50 times the number of years of coverage over 10 up to a maximum of \$230 (i.e., 30 years of earnings).

Standard Error of Estimated Percentage

Base of Percent	1	2	5	8	10	15	20	25	30	35	40	50
	or 99	or 98	or 95	or 92	or 90	or 85	or 80	or 75	or 70	or 65	or 60	
2,500.....	.40	.56	.87	1.09	1.20	1.43	1.60	1.73	1.83	1.91	1.96	2.00
5,000.....	.28	.40	.62	.77	.85	1.01	1.13	1.22	1.30	1.35	1.39	1.41
7,500.....	.23	.32	.50	.63	.69	.82	.92	1.00	1.06	1.10	1.13	1.15
10,000.....	.20	.28	.44	.54	.60	.71	.80	.87	.92	.95	.98	1.00
25,000.....	.13	.18	.28	.34	.38	.45	.51	.55	.58	.60	.62	.63
50,000.....	.09	.13	.19	.24	.27	.32	.36	.39	.41	.43	.44	.45
75,000.....	.07	.10	.16	.20	.22	.26	.29	.32	.33	.35	.36	.37
100,000.....	.06	.09	.14	.17	.19	.23	.25	.27	.29	.30	.31	.32
250,000.....	.04	.06	.09	.11	.12	.14	.16	.17	.18	.19	.20	.20

**Standard Error of Estimated
Number of Persons**

Size of Estimate	Standard Error
1,000.....	63
2,500.....	99
5,000.....	140
7,500.....	171
10,000.....	197
25,000.....	308
50,000.....	424
75,000.....	504
100,000.....	565
250,000.....	707

TABLE 1.—Mean, median and percent distribution of absolute change in benefit level by specific legislative changes

Legislative change	Decrease										Increase			
	Mean change	Median change	200+	\$150 -199	\$100 -149	\$75 -99	\$50 -74	\$25 -49	\$10 -24	Less than \$10	No change	Less than \$10	\$10 -24	25+
Total-1977 and 1980 amendments plus elimination of regular minimum.....	-\$74.40	-\$44.60	9.9	7.2	7.3	5.8	15.2	25.4	14.0	6.3	.1	4.1	3.2	1.6
Elimination of regular minimum.....	-2.60	0	0	0	.3	.8	1.3	1.6	1.2	.9	94.0	0	0	0
1977 and 1980 amendments combined.....	-71.75	-41.36	9.9	7.1	6.8	5.1	14.1	24.3	14.2	6.6	.1	7.1	3.2	1.6
1980 amendments (after decoupling)-total.....	-24.75	0	.3	1.4	12.3	2.8	4.1	3.7	3.8	4.5	67.2	0	0	0
—85% cap on AJME, 100% PIA minimum.....	-3.93	0	0	0	0	.8	2.6	1.4	7.1	.7	87.4	0	0	0
—150% PIA cap.....	-16.76	0	0	0	12.6	1.2	1.2	1.0	.6	.4	82.9	0	0	0
—change in number of dropout years.....	-5.27	0	1/	.1	.5	.7	1.5	4.3	6.4	7.1	79.4	0	0	0
1977 amendments (decoupling).....	-47.00	-35.69	2.6	3.4	6.3	6.9	16.5	27.5	15.6	7.2	.1	8.0	3.6	2.3

1/ Less than .05 percent.

TABLE 2.--Mean, median and distribution (in percent) of the percentage change in benefit level with 1977 and 1980 legislative changes

	Distribution in percent of persons										Increase			
	Reduction										Less than 5%	No Change		
	50+	35-50	25-35	15-25	10-15	5-10	Less than 5%							
	Mean Percent Change	Median Percent Change											Less than 5%	No Change
													5-	10
													10+	
<u>Monthly Family Benefit Amount</u>														
Total-1977 and 1980 amendments plus elimination of regular minimum.....	-16.4	-12.8	3.1	8.7	13.6	16.4	19.1	19.7	10.6	.2	5.2	2.4	1.1	
Elimination of regular minimum.....	-2.1	0	1.7	1.0	.8	.9	.5	.5	.5	94.0	0	0	0	
1977 and 1980 amendments combined.....	-14.5	-11.9	1.0	7.3	13.4	16.3	19.2	19.9	10.8	.2	8.3	2.4	1.2	
1980 amendments (after decoupling)-total.....	-5.0	0	1/	.8	3.6	13.8	4.9	3.5	6.2	67.2	0	0	0	
--85% cap on AIME, 100% FIA minimum.....	-1.4	0	0	0	2.5	1.2	.7	.9	7.3	87.4	0	0	0	
--150% FIA cap.....	-2.6	0	0	0	0	10.0	5.2	1.0	.8	82.9	0	0	0	
--change in number of dropout years.....	-1.3	0	0	1/	.3	1.6	2.3	4.7	11.7	79.4	0	0	0	
1977 amendments (decoupling) only.....	-10.2	-9.8	0	.4	7.7	16.6	24.4	24.4	12.6	.1	9.7	2.8	1.4	

TABLE 3.--Distribution of percent changes in monthly family benefit amount from combined changes according to pre-change benefit amount

Pre-1977 Amendment Benefit Level	# (weighted)	Reduction					Increase				
		Total	Over 50%	35-49%	25-34%	10-24%	1-9%	No change	1-9%	10-25%	25%+
<u>All Legislative Changes Combined</u>											
Total.....	491,885	100.0	3.1	8.6	13.5	35.2	30.6	.3	7.6	1.1	1/
Minimum.....	15,755	100.0	46.2	24.1	12.6	10.5	3.2	.1	1.5	1.2	.5
122-199.....	43,050	100.0	5.0	9.4	13.3	32.9	27.1	.3	9.4	2.4	.3
200-299.....	101,120	100.0	2.4	4.4	7.4	38.3	33.2	.4	12.1	2.0	0
300-399.....	105,560	100.0	.9	5.5	10.3	26.8	38.3	.5	16.0	1.8	0
400-499.....	114,335	100.0	.5	3.3	4.9	42.8	45.9	.2	2.2	.2	0
500-599.....	23,275	100.0	2.0	13.0	25.6	35.5	17.0	.1	6.5	.3	0
600-699.....	24,235	100.0	1.9	14.3	26.6	32.8	23.4	1/	.9	0	0
700-799.....	31,560	100.0	1.3	15.3	27.6	49.8	6.1	0	0	0	0
800+.....	32,995	100.0	1.6	28.0	41.1	29.4	0	0	0	0	0
<u>1977 Amendments</u>											
Total.....	491,885	100.0	0	.4	7.6	40.6	37.4	.3	12.3	1.4	.1
Minimum.....	15,755	100.0	0	0	0	0	0	0	98.3	1.2	.5
122-199.....	43,050	100.0	0	0	10.2	37.5	34.6	.3	14.6	2.5	.3
200-299.....	101,120	100.0	0	0	5.2	43.0	36.3	.4	13.0	2.1	1/
300-399.....	105,560	100.0	0	0	6.7	32.1	41.9	.6	16.6	2.0	1/
400-499.....	114,335	100.0	0	.1	5.6	44.0	46.7	.2	2.9	.6	1/
500-599.....	23,275	100.0	0	2.9	20.8	36.8	25.1	.2	11.9	2.3	0
600-699.....	24,235	100.0	0	3.6	12.0	34.8	42.4	.4	6.7	.1	0
700-799.....	31,560	100.0	0	1.4	7.7	47.2	43.0	.1	.8	0	0
800+.....	32,995	100.0	0	12.3	73.0	14.8	0	0	0	0	0
<u>1980 Amendments (including 1977 Amendments)</u>											
Total.....	491,885	100.0	1.0	7.3	13.4	35.3	31.0	.3	10.7	1.1	1/
Minimum.....	15,755	100.0	0	0	0	0	0	0	98.3	1.2	.5
122-199.....	43,050	100.0	0	1.1	16.3	37.1	33.2	.3	9.4	2.4	.3
200-299.....	101,120	100.0	1.6	5.2	7.4	38.3	33.2	.4	12.1	2.0	0
300-399.....	105,560	100.0	.9	5.5	10.3	26.8	38.3	.5	16.0	1.8	0
400-499.....	114,335	100.0	.5	3.3	4.9	42.8	45.9	.2	2.2	.2	0
500-599.....	23,275	100.0	2.0	13.0	25.6	35.5	17.0	.1	6.5	.3	0
600-699.....	24,235	100.0	1.9	14.3	26.6	32.8	23.4	1/	.9	0	0
700-799.....	31,560	100.0	1.3	15.3	27.6	49.8	6.1	0	0	0	0
800+.....	32,995	100.0	1.6	28.0	41.1	29.4	0	0	0	0	0

1/ less than .05%.

TABLE 4. ---Percent distribution of replacement rate before and after legislative changes

	Based on AIME							Based on HIGH 5															
	Total	Under 40%	40-49%	50-59%	60-69%	70-79%	80-89%	90-99%	100-109%	110-119%	120%+	Total	Under 40%	40-49%	50-59%	60-69%	70-79%	80-89%	90-99%	100-109%	110-119%	120%+	
Prior to any legislative changes.....	100.0	.4	41.1	20.1	20.1	13.2	3.5	1.6	100.0	17.3	37.7	19.6	10.0	7.6	3.9	3.8							
After 1977 amendments.....	100.0	.2	49.1	24.8	18.0	4.8	1.6	1.5	100.0	28.5	33.4	19.4	7.8	5.7	2.7	2.6							
After 1980 amendments-total.....	100.0	.9	50.8	32.6	11.0	2.2	1.3	1.3	100.0	29.6	40.8	15.9	5.4	4.1	2.0	2.2							
---65% AIME cap.....	100.0	.2	49.1	24.8	21.0	2.2	1.3	1.3	100.0	29.1	33.9	19.5	7.4	5.3	2.5	2.3							
---150% PIA cap.....	100.0	.2	49.6	31.8	10.6	4.8	1.5	1.5	100.0	28.6	39.2	16.1	6.1	4.9	2.6	2.6							
---change in dropout years.....	100.0	.9	49.3	26.7	15.7	4.5	1.6	1.5	100.0	28.9	34.0	19.9	7.4	4.9	2.5	2.5							
After elimination of regular minimum.....	100.0	.9	50.8	32.9	15.4	0.0	0.0	0.0	100.0	30.7	41.0	15.8	5.2	3.8	1.9	1.6							

TABLE 3.--Percent of persons affected and average change in benefit level from specific legislative change by characteristics

	Total	Sex		Race		Age					Number of dependents					
		Male	Female	White	Black	Other	< 30	30-39	40-49	50-54	55-59	60-64	Only	Marker and 1	Marker and 2	Marker and 3 or more
Number.....	491,885	339,680	152,195	409,355	69,745	12,785	35,385	39,360	67,065	75,965	133,085	140,805	344,690	46,460	45,540	55,195
Percent receiving increases in benefits-total.....	8.9	10.1	6.0	9.2	7.4	5.9	0	0	3.0	9.6	12.0	13.0	11.5	7.2	0.8	0.6
1977 Amendments.....	13.8	13.6	14.3	13.6	15.7	12.6	5.5	1.3	8.4	15.4	16.5	18.7	16.0	11.1	8.8	6.5
Percent receiving reductions in benefits-total.....	91.1	89.8	93.9	90.7	92.6	94.1	100.0	100.0	96.9	90.4	87.9	86.9	88.4	92.7	99.2	99.4
1977 Amendments.....	86.1	86.3	85.6	86.4	86.3	87.3	94.5	98.7	91.6	84.5	83.4	81.2	83.9	88.9	91.2	93.5
1980 Amendments.....	32.8	36.2	25.2	31.2	40.1	44.0	49.4	98.7	82.4	27.0	14.4	6.9	11.4	45.3	100.0	100.0
Elimination of minimum.....	6.0	2.8	13.3	5.2	10.4	9.6	13.4	2.9	4.8	5.7	4.8	7.0	7.3	4.5	2.5	2.1
Average change in benefit level- \bar{x} -total.....	-74.35	-82.81	-55.48	-73.13	-77.92	-93.88	-149.56	-214.91	-112.70	-58.08	-43.42	-35.79	-36.52	-83.22	-186.90	-210.28
1977 Amendments.....	-47.00	-51.21	-37.61	-46.68	-46.65	-59.37	-112.93	-128.19	-60.54	-32.25	-28.49	-26.62	-31.29	-60.33	-84.81	-102.74
1980 Amendments.....	-24.75	-30.34	-12.28	-24.27	-26.56	-30.41	-30.29	-85.56	-50.38	-23.62	-12.87	-5.91	-2.01	-21.12	-101.20	-106.77
Elimination of minimum.....	-2.60	-1.26	-5.58	-2.19	-4.71	-4.09	-6.63	-1.17	-1.78	-2.21	-1.96	-3.25	-3.23	-1.77	-0.89	-0.78
Average change in benefit level- \bar{x} -total.....	-16.4	-15.3	-18.9	-15.7	-19.9	-22.6	-36.3	-35.2	-21.6	-13.5	-10.8	-10.6	-12.3	-18.1	-28.7	-30.7
1977 Amendments.....	-10.2	-9.7	-11.3	-10.0	-10.1	-13.5	-25.1	-20.8	-11.6	-7.6	-7.1	-6.5	-9.2	-10.9	-12.3	-14.2
1980 Amendments.....	-5.0	-5.5	-4.0	-4.7	-6.4	-7.3	-7.6	-17.4	-10.1	-4.6	-2.4	-1.2	-0.7	-7.4	-18.3	-18.1
Elimination of minimum.....	-2.1	-1.0	-4.6	-1.8	-3.9	-3.4	-5.2	-1.0	-1.5	-1.8	-1.6	-2.7	-2.6	-1.5	-0.7	-0.6
Average dollar change for persons affected- \bar{y} 1/.....	-75.46	-83.81	-48.73	-77.79	-66.23	-69.11	-61.32	-86.69	-61.14	-67.48	-69.38	-85.65	-17.63	-46.62	-101.20	-106.77
1980 Amendments.....	-43.33	-45.00	-41.95	-42.12	-45.29	-42.60	-49.48	-40.34	-37.08	-38.77	-40.83	-46.43	-44.25	-39.33	-35.60	-37.14
Elimination of minimum.....	-15.2	-15.2	-33.9	-31.1	-16.0	-16.6	-15.4	-17.6	-12.3	-17.0	-16.7	-17.4	-6.1	-16.3	-18.3	-18.1
Average percent change for persons affected- \bar{y} 1/.....	-35.5	-36.9	-34.4	-34.5	-37.1	-34.9	-40.6	-33.1	-38.4	-31.8	-33.5	-38.1	-36.3	-32.2	-29.2	-30.4
1980 Amendments.....	-15.2	-15.2	-33.9	-31.1	-16.0	-16.6	-15.4	-17.6	-12.3	-17.0	-16.7	-17.4	-6.1	-16.3	-18.3	-18.1
Elimination of minimum.....	-35.5	-36.9	-34.4	-34.5	-37.1	-34.9	-40.6	-33.1	-38.4	-31.8	-33.5	-38.1	-36.3	-32.2	-29.2	-30.4

1/ The 1977 amendments affected virtually all beneficiaries and, hence, the changes for the 1977 amendments are the same as for the total population.

LEGISLATIVE CHANGES IN DEPENDENT RATES BY PRIOR TO AND POST LEGISLATIVE CHANGES BY SELECTED CHARACTERISTICS

	Total	AGE			Other	Under 30	AGE			Worker only	Number of Dependents			
		Male	Female	White			Black	Hispanic	Worker and 1		Worker and 2	Worker and 3 +		
AGE denominator														
Prior to legislative changes.....	68.7	62.5	77.6	65.7	81.2	81.9	96.4	85.4	69.4	37.0	34.5	79.3	92.5	95.5
After 1977 amendments.....	60.6	56.2	67.9	58.4	71.9	71.5	76.1	75.8	61.7	32.7	31.9	69.9	82.4	82.4
After 1980 amendments.....	58.9	54.3	65.0	57.0	65.6	64.5	61.2	65.9	61.7	32.7	31.9	68.5	87.9	87.4
After elimination of minimum.....	58.0	54.3	65.7	56.9	65.5	64.3	61.1	65.5	61.7	32.7	31.9	68.5	87.9	87.4
Percent change due to														
1977 amendments.....	-11.0	-10.1	-12.5	-11.1	-11.5	-16.4	-19.4	-11.2	-8.2	-7.5	-8.1	-10.4	-10.9	-13.7
1980 amendments.....	-2.0	-3.4	-3.1	-2.4	-8.0	-9.0	-19.8	-13.1	-5.1	0	0	-1.6	-17.6	-18.2
Elimination of minimum.....	-0.2	0	-0.2	-2	-2	0	0	0	0	0	0	0	0	0
Total change.....	-14.4	-12.1	-15.3	-13.4	-19.3	-22.2	-35.3	-23.8	-11.1	-7.5	-8.1	-13.0	-28.6	-29.4
HIGH 5 of previous 10 denominator														
Prior to legislative changes.....	56.2	56.7	55.4	54.4	64.1	67.7	88.6	70.3	52.1	47.0	48.3	67.3	80.7	85.1
After 1977.....	51.2	52.2	49.5	49.0	57.9	58.7	77.9	61.5	48.3	44.8	45.3	61.7	73.9	73.8
After 1980.....	49.3	49.7	48.4	48.4	53.9	54.0	75.9	53.4	46.4	44.2	45.1	59.4	70.9	70.9
After elimination of minimum.....	48.5	49.5	46.0	47.9	52.2	53.0	75.6	53.1	45.8	43.0	44.4	62.0	71.7	71.7
Percent change due to														
1977 amendments.....	-8.9	-7.9	-10.6	-8.5	-9.7	-13.3	-20.1	-12.5	-7.3	-4.3	-4.2	-7.6	-8.7	-13.3
1980 amendments.....	-3.7	-4.0	-2.2	-2.0	-6.9	-8.0	-18.7	-13.0	-5.5	-1.3	-1.4	-4.9	-10.0	-10.0
Elimination of minimum.....	-1.6	-1.4	-3.3	-1.0	-3.2	-2.2	-5.5	-2.9	-1.7	-1.3	-1.6	-1.7	-2.2	-2.2
Total change.....	-13.7	-12.7	-15.3	-11.9	-18.6	-22.0	-35.7	-28.3	-12.1	-6.0	-6.1	-9.5	-20.0	-25.7

1/ expressed in percent

TABLE 7.--Percent of persons with replacement rates in excess of 80 percent prior to and after specific legislative changes by selected characteristics

	SEX				Race			Age					Number of dependents						
	Total	Male	Female	White	Black	Other	Number 30					Member only	Member and 1	Member and 2	Member and 3 +				
							60-64	65-69	70-74	75-79	80-84								
AGE Determinator																			
Prior to legislative changes.....	38.5	34.5	41.3	35.8	31.3	32.4	70.2	70.8	61.3	38.4	35.7	27.6	21.1	27.8	31.8	32.0	32.0	32.0	
After 1977 amendments.....	25.9	21.0	26.8	21.1	24.2	21.3	27.4	27.0	20.5	27.0	18.2	17.2	14.5	14.8	14.8	14.7	14.7	14.7	
After 1980 amendments.....	15.8	9.3	20.3	12.7	20.0	12.9	26.7	1.7	17.0	19.0	14.0	13.2	14.2	14.5	14.5	14.3	14.3	14.3	
After elimination of minimum.....	13.4	9.1	20.7	13.4	20.0	13.0	26.7	1.7	17.0	19.0	14.0	13.2	14.2	14.5	14.5	14.3	14.3	14.3	
Percent change due to																			
1977 amendments.....	-32.7	-39.1	-22.2	-33.5	-21.4	-20.4	-42.5	-60.7	-34.0	-20.6	-29.2	-23.0	-29.9	-32.6	-33.6	-35.9	-35.9	-35.9	
1980 amendments.....	-39.0	-35.7	-17.7	-40.7	-24.5	-24.3	-31.7	-92.0	-56.0	-20.7	-22.0	-11.6	-2.0	-20.5	-22.1	-25.9	-25.9	-25.9	
Elimination of minimum.....	-2.5	-2.2	-2.0	-2.3	-1.5	-1.3	-3.3	-50.0	-4.5	0	0	0	-2.1	-1.9	-2.4	-2.7	-2.7	-2.7	
Total changes.....	-60.0	-73.6	-37.2	-62.6	-49.3	-55.0	-82.0	-97.6	-72.3	-60.3	-56.5	-32.7	-32.7	-67.5	-81.9	-86.9	-86.9	-86.9	
High 5 of previous 10 decimeter																			
Prior to legislative changes.....	25.0	22.3	24.3	22.6	21.3	20.8	52.3	54.9	32.4	32.0	31.0	12.0	15.5	21.2	21.2	21.2	21.2	21.2	
After 1977 amendments.....	19.0	12.6	18.6	14.6	17.2	14.0	31.2	44.9	19.1	16.3	9.5	11.0	12.1	24.8	25.2	24.3	24.3	24.3	
After 1980 amendments.....	10.0	12.7	16.4	12.0	18.5	11.4	40.8	19.0	9.8	7.2	6.2	10.0	12.5	18.2	17.2	13.4	13.4	13.4	
After elimination of minimum.....	12.5	12.1	13.4	11.4	15.6	10.7	40.4	19.0	8.6	5.0	6.3	9.0	11.0	17.2	16.7	14.9	14.9	14.9	
Percent change due to																			
1977 amendments.....	-36.0	-29.0	-19.4	-36.3	-24.3	-22.4	-18.0	-20.1	-44.1	-20.0	-44.6	-7.0	-15.3	-41.3	-41.2	-50.0	-50.0	-50.0	
1980 amendments.....	-24.0	-29.6	-19.6	-26.4	-20.2	-20.2	-9.2	-57.1	-35.9	-20.1	-13.7	-8.5	-4.6	-26.6	-31.1	-37.6	-37.6	-37.6	
Elimination of minimum.....	-9.4	-4.7	-10.3	-7.0	-13.7	-8.0	-6.6	-4.3	-12.2	-19.4	-20.7	-10.7	-12.0	-5.3	-5.0	-3.2	-3.2	-3.2	
Total changes.....	-69.8	-53.5	-47.0	-69.6	-53.2	-49.3	-34.7	-76.6	-73.3	-53.6	-38.6	-29.7	-31.0	-64.2	-67.6	-78.9	-78.9	-78.9	