NATIONAL
ACADEMY
OF.SOCIAL
INSURANCE

## The Social Security Benefit Notch: A study

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## LETTER OF TRANSMITTAL

Executive Director
Pamela J. Larson
November 14, 1988
Senator Daniel Patrick Moynihan
Chairman
Subcommittee on Social Security
and Family Policy
Committee on Finance
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:
I am pleased to present to the Subcommittee on Social Security and Family Policy of the Senate Committee on Finance a report undertaken by the National Academy of Social Insurance on the Social Security benefit "notch" at the request of Senator Dole and yourself in your letter of March 7.

We shall be glad to discuss this report in greater detail with you and members of your staff.

cc: Senator Bob Dole

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 WASHINGTON, D.C. 20002(202) $547-9592$

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Ranking Minority Member
Subcommittee on Social Security
and Family Policy
Committee on Finance
United States Senate
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We shall be glad to discuss this report in greater detail with you and members of your staff.

cc: Senator Daniel Patrick Moynihan

The National Academy of Social Insurance is a nonprofit, nonpartisan organization devoted to furthering knowledge and understanding of Social Security and related programs. The National Academy takes responsibility for assuring the independence of any panel formed under its auspices.

Panel members are selected for their recognized expertise and with due consideration for the balance of disciplines appropriate to the project. The resulting report is the responsibility of the panel members, but in accordance with the procedures of the National Academy, it has been reviewed by a committee of the Board for completeness, accuracy, clarity and objectivity.

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## I. INTRODUCTION

In 1977, the Congress enacted a new method for computing Social Security benefits applicable to persons first becoming eligible for retirement benefits on or after January 1, 1979. Essentially, insured workers attaining age 62 before the effective date were to have their benefits computed under the old system, whereas those attaining age 62 after that date were to be under the new system. The Social Security Amendments of 1977 included special transition provisions that applied only to workers who attained age 62 in 1979-83.

Shortly after the new system took effect, it became clear that the differences between the benefit amounts computed under the new procedures as compared to those computed under the old procedures were larger than had been expected. In particular, sharp differences could arise between two workers who had similar work histories but who differed mainly in that one was born in 1916 and became age 62 before January 1979, whereas the other was born in 1917 and became age 62 on or after January 1, 1979. For example, a worker who had earned in each year the maximum amount creditable for benefits and who retired at age 65 could receive about $\$ 100$ a month less if born after January 1, 1917 than if born in 1916.

The pattern under which persons reaching age 62 in 1979 and thereafter have lower benefits than similarly situated older persons has become known as the "the notch." And the people who attained age 62 in 1979 and thereafter are known as the "notch group". Some of them believe incorrectly that the lower benefits are applicable only to insured workers reaching age 62 in the 1979-83 period, and believe that the notch issue is a question of inequitable treatment in comparison with those who attain age 62 later, as well as with those who have done so before. Other persons are simply concerned about the fact that their benefits are lower than are those paid to similarly situated older workers.

A number of legislative changes have been proposed to deal with the notch benefit disparity. Most of these changes involve increasing the benefits paid to at least some of the people reaching age 62 in or after 1979. Generally, these proposals require large expenditures from the Social Security trust funds.

The notch situation is undesirable and unfortunate. Naturally, it seems unfair to those born in the years shortly after 1916. However, careful and thorough analysis shows that the problem is really largely attributable to the fact that those born in the several years before 1917 who worked well beyond age 62 (after 1978) received benefits which are too large and that it would be unwise to extend this over-generous treatment to additional persons.

Senator Daniel Patrick Moynihan, Chairman of the Subcommittee on Social Security and Family Policy of the Senate Finance Committee and Senator Bob Dole, the ranking minority member of that subcommittee, asked the National Academy of Social Insurance (see Appendix B for a description of the purposes and organization of the National Academy) to examine the "notch" question. (See Appendix A for the letter requesting the study.)

This report has been prepared in response to that request. It was developed by a panel of experts appointed by the Academy. The panel consists of the following persons: Robert J. Myers, Chair, formerly Chief Actuary, Social Security Administration and Executive Director, National Commission on Social Security Reform: Gary Burtless, Senior Fellow in the Economic Studies program, The Brookings Institution: Suzanne B. Dilk, formerly Senior Analyst, Social Security Administration and the National Commission on Social Security Reform; and James W. Kelley, Attorney at Law, formerly Staff Director, Subcommittee on Social Security, House Committee on Ways and Means.

In addition to an Introduction and Summary, the report consists of three sections: "Findings"; "Review of Pending Legislation and Views of Various Organizations"; and "Recommendation of the Panel", plus several Appendices. Appendix A contains the letter of request for the study. Appendix B is a statement of the purposes and organization of the National Academy of Social Insurance. Appendix $C$ presents a bibliography of publications and documents on the "notch" subject; of special importance in the bibliography is the recent report of the General Accounting Office, which represents the results of its intensive, long-term study of the matter and contains extensive factual data. Appendix $D$ describes the methods of benefit computation under the 1972 and 1977 Acts and also explains the flaw in the 1972-Act benefit-computation procedure that led to the need for change. Appendix $E$ is a more technical analysis of some of the material appearing in the report. Appendix $F$ gives the specifications for a method of benefit computation which would have prevented much of the "notch" had it been enacted in 1977. Appendix $G$ compares various bills on the "notch" introduced in the 100th Congress.

The term "Social Security" as used in this report means the Old-Age, Survivors, and Disability Insurance program established by the Social Security Act. The term "notch", in general, denotes a significant difference in Social Security benefit amounts between two individuals who have the same earnings record, but slightly different dates of birth. This term can, however, also be used to refer to birth cohorts before and after a certain point in time which have significantly different benefit results for essentially similar earnings histories. Birth cohorts are defined as all persons born during a given time period. (Note that Social Security regulations provide that persons born on January 1 are considered to attain a particular age on the day preceding their birthday -- i.e., in the previous calendar year -- and this should be kept in mind when years of birth are referred to.)

The term "Normal Retirement Age" means the age at which unreduced benefits are payable (currently 65, but slowly increasing beginning in 2003, until it reaches 67 in 2027). The term "replacement rate" means, for a steady worker, the annual benefit initially payable for the worker alone, expressed as a percentage of the earnings in the previous year.

Examples used throughout the report demonstrate the effects of various provisions of law on purely hypothetical workers -- one who has had earnings equal to the average earnings in the national economy in each year of her or his working lifetime and one who had earnings equal to or greater than the maximum annual amount counted for Social Security tax and benefit purposes each year. While these examples are useful for conceptual and illustrative purposes, they are not necessarily typical of individual workers under the program, relatively few of whom have annual wage increases precisely following national wage increases, and only a very small percentage of whom have earnings that consistently exceed the Social Security tax and benefit base.

This report has been prepared as part of the continuing studies of the Social Security program performed by the National Academy of Social Insurance. The views expressed in the report are those of the panel. In accord with the Academy's procedures, a subcommittee of the Board has reviewed the report from the standpoint of completeness, clarity, accuracy, and objectivity.

The panel believes that one of its primary responsibilities in presenting this report is to reduce some of the widespread confusion surrounding this issue. Part of the confusion surrounding the "notch" issue arises from the complicated nature of the problem. However, part of the confusion is traceable to misleading (or even incorrect) information disseminated by groups which seek to increase Social Security benefits now paid to beneficiaries affected by the notch. This has resulted in deep misunderstanding of the issue by much of the general public, and even by some Members of Congress.

The panel considers the notch situation to be most undesirable and unfortunate. It naturally seems unfair to those born in the years shortly after 1916. However, careful and objective analysis shows that the problem is attributable to the fact that those born shortly before 1917 received benefits which were too large -- especially if they worked well beyond age 62 -and that it would be unwise to extend this over-generous treatment to additional persons.

The panel has concluded that the situation, being quite complex, has not been correctly understood by most people. The panel found that persons born in 1917-21 do not receive any lower benefits in relative terms than the Social Security program provides, by congressional intent, to those born after 1921. Persons born in 1917 or after receive Social Security benefits which are at the level relative to previous earnings that Congress determined desirable for future retirees under the Social Security program.

Some groups have been promoting legislation to raise benefits for those whom they believe to be adversely affected by the changes made in the Social Security Amendments of 1977. The panel concludes that this would not be fiscally responsible.

Under the various proposals to increase benefits for those in the notch group, one perceived inequity in the benefit structure would be eliminated, but another one would be created. Beneficiaries born in 1917-21 would then have substantially higher replacement rates than those born in later years. This inequity might, in turn, lead to calls to liberalize benefits for all those born after 1921. The cost of such increases could be very large and would jeopardize the financial stability of the trust funds for future generations unless contribution rates were raised substantially, an action which the panel believes would be completely unjustified for this purpose.

1. Significantly larger retirement benefits are paid to some persons born before 1917 than to persons born in 1917 and after (the "notch group") who have similar earnings histories.
2. The differences in the benefit-computation procedures applicable to those born in 1917-21 and those born later are, if anything, generally to the advantage of those born prior to 1922 when benefits relative to prior earnings are considered. The 1917-21 group is not really disadvantaged relative to those born in 1922 or later.
3. Relative to pre-retirement earnings, benefits paid to those who were born in 1911-16 and who worked well beyond age 62 are higher than are benefits paid to those born either before or after that period.
4. The benefits paid to the notch group (those born in 1917 and thereafter) are at about the level that Congress intended for all future retirees, whereas the benefits paid to those persons.born in 1911-16 -especially those who worked well beyond age 62 -- are higher than Congress believed desirable.
5. The later the age at retirement, the greater the benefit difference or "notch" -- because of the differences in the benefit-computation methods in the 1972 and 1977 Acts as they were affected by the economic conditions of the 1970s and early 1980s.
6. The "notch" arises because those born in 1911-16 are receiving an unintended "windfall" -- not because those in the "notch group" receive "too little". It was inevitable that, if correction for replacement rates that were too high were made, birth cohorts following those who had been receiving excessive benefits would get less. The notch situation could have been reduced -- and, in many cases, eliminated altogether -- if, in 1977, Congress had adopted a provision that placed a cap on the windfall being received by workers born before 1917 who worked in 1979 and after.
7. Reducing the "notch" now by cutting the benefits of those receiving the unintended windfall would require reducing benefits for those already receiving them, who are counting on a continuation of the level of benefits awarded to them. Conversely, increasing the benefits of those born in the notch years would, in turn, create new relative notches affecting those born in later years (and also would increase the already unfavorable differential against those born in about 1910 or before).

The recommendation of the panel is as follows:
Since the "notch" arises because the benefits of some of those born prior to 1917 are higher than was intended, there is no reasonable basis for reducing the "notch" by raising the benefits of those born later. Nor is it desirable to reduce the benefits of those already receiving them and counting on their continuation. Therefore, the panel recommends no change in present law that would either award additional benefits to those born after 1916 or reduce benefits for those born prior to 1917.

1. Significantly larger retirement benefits are paid to some persons born before 1917 than to persons born in 1917 and after (the "notch group") who have similar earnings histories.

Persons born before 1917 who worked well beyond age 62 (in years after 1978) do receive substantially larger benefits than persons born in 1917 and after (actually, born on January 2, 1917 and after) who have similar earnings histories (i.e., also work well beyond age 62). This is truly a notch situation and naturally seems unfair to those born in the years shortly after 1916.

## TABLE 1

## IULUSTRATIVE CURRENT MONIHLY BENEFFITS FOR MEN a/ WHO RETIRED AT AGE 65 WITH MAXIMIM OR AVERRGE CREDITABLE EARNINGS IN ALI PREVIOUS YEARS

| Year of Attainment of Age | Year of Birth | Maximum Earners | Average Earners |
| :---: | :---: | :---: | :---: |
| 1972 | 1907 | \$653.30 | \$577.90 |
| 1973 | 1908 | 670.10 | 587.50 |
| 1974 | 1909 | 691.20 | 600.70 |
| 1975 | 1910 | 717.40 | 613.90 |
| 1976 | 1911 | 763.90 | 635.60 |
| 1977 | 1912 | 814.20 | 656.80 |
| 1978 | 1913 | 856.50 | 682.90 |
| 1979 | 1914 | 880.30 | 700.10 |
| 1980 | 1915 | 910.10 | 717.40 |
| 1981 | 1916 | 942.40 | 741.50 |
| 1982 | 1917 | 850.20 | 670.10 |
| 1983 | 1918 | 826.90 | 644.40 |
| 1984 | 1919 | 792.30 | 611.20 |
| 1985 | 1920 | 780.40 | 596.70 |
| 1986 | 1921 | 802.20 | 608.30 |
| 1987 | 1922 | 822.30 | 618.40 |
| 1988 | 1923 | 838.60 | 626.20 |

a/ Man attains the specified age atbeginningofyearand retires then. Figures for attaiments of age 65 in 1978 and after are also applicabletowomen; for earlier years in the table, the figures for women are somewhat higher.

Table 1 illustrates this notch for people retiring at age 65 and for two earnings histories. As the table clearly shows, a person born in early 1917 as against one born in late 1916, both of whom have the same earnings record and are only a few days apart in age, will have significantly lower "current monthly benefits" (i.e., the benefits payable in early and mid-1988). However, the real question is whether this situation results from those born in 1917 and after being treated unfairly, or whether those born before 1917 are receiving "windfalls" or "bonanzas". Later sections of this report will examine this question in the light of what the Social Security program is supposed to do and what the Congressional intent has been. They will also examine the cause of this "notch" and the policy question of whether anything should be done to reduce or eliminate the "notch".
2. The differences in the benefit-computation procedures applicable to those born in 1917-21 and those born later are, if anything, generally to the advantage of those born prior to 1922 when benefits relative to prior earnings are considered. The 1917-21 group is not really disadvantaged relative to those born in 1922 or later.

The "notch" problem is frequently presented as if those born in 1917-21 had a special disadvantage as compared to those born later. On the contrary, benefits for persons born after 1921 are, for similar circumstances, quite comparable and equitable relative to those for $1917-21$ births. If anything, some of those born in 1917-21 have an advantage because they receive the larger amount resulting under two alternative benefit computation procedures (see Appendix D), whereas those born later can use only one of these procedures.

Table 2 examines the situation for persons born in late 1921 (the end of what some people consider the notch group) as against that for persons born shortly afterwards -- in early 1922 -- for various dates of retirement and for two earnings levels. The differences in the initial benefits are negligible in all instances. This shows that those born in 1917-21 are not discriminated against when compared to those born after 1921.

TABLE 2

## ITIUSTRATIVE INLITIAL MONTBHIY BERNEFITS FOR PERSCNS BORN IN LATE 1921 AND EARLY 1922 mBC Have same marnmes RECORD AND RETIIRE ON SAME DATE

| Data of Retirement | Averacge Eargers |  |  |  | Maximun Earners |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Born in | Born in | Difference |  | $\begin{aligned} & \hline \text { Born } \\ & 1921 \\ & \hline \end{aligned}$ | Born in | Difference |  |
|  | 1921 | 1922 |  |  | 1922 |  |  |
| January 1984 | \$430 | \$437 | \$ | 7 |  | \$556 | \$559 | \$ | 3 |
| Jamary 1985 | 484 | 488 |  | 4 | 632 | 635 |  | 3 |
| Jamary I. 986 | 541 | 544 |  | 3 | 713 | 715 |  | 2 |
| January I. 987 | 589 | 593 |  | 4 | 785 | 789 |  | 4 |

Some of the group born in 1917-21 does have the advantage of a transitional-guarantee computation provision that is not available to those born later. For some persons in this group,

## ERRATUM

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    A line of text was inadvertently dropped from the bottom of
page 8 of this report. Following the last line on this page,
which begins "available to those born", insert "this provision
had a significant effect by increasing their".
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benefit amount. For example, the current benefit -- i.e., the initial benefit, plus all cost-of-living adjustments -- for maximum-earnings retirees at age 62 in 1979 would have been $\$ 633.80$ except for the transitional-guarantee provision, which increased the monthly amount by $\$ 46.20$, raising the benefit to $\$ 680.00$ (see Appendix Table 3). For maximum earners attaining age 62 in 1980, the transitional-guarantee provision increased their initial benefits by $\$ 13.50$ a month, from what would have been $\$ 627.30$ to $\$ 640.80$.
3. Relative to pre-retirement earnings, benefits paid to those who were born in 1911-16 and who worked well beyond age 62 are higher than are benefits paid to those born either before or after that period.

Probably the best method of analyzing whether the benefits payable to those born after 1916 are inequitably low is to examine replacement rates -- that is benefits as a percentage of recent earnings -- for different ages at retirement, according to year of retirement. Such rates are shown in Table 3 and Chart A for the average-earnings individual who worked between ages 62 and 65. Table 3 also shows such data for retirement at age 62.

TABLE 3
ILLUSTRATIVE REPLACEMENT RATES FOR MEN a/ WITH
EARNINGS WHO RETIRED IN VARIOUS YEARS
Year of Attainment
of Acre
Retiring at
Retiring at
Aqe 65
1972
Age 62

1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988

$$
\begin{aligned}
& 27.4 \% \\
& 30.7 \\
& 30.0 \\
& 32.4 \\
& 33.2 \\
& 33.7 \\
& 34.6 \\
& \hline 34.8 \mathrm{~b} / \\
& 33.1 \mathrm{~b} / \\
& 33.0 \\
& 32.6 \\
& 34.0 \\
& 34.2 \\
& 33.9 \\
& 34.4 \\
& 34.8 \\
& 34.3 \mathrm{c} /
\end{aligned}
$$

35.3\%
39.2
37.8
40.4
$33.2 \quad 42.1$
$33.7 \quad 43.3$
$\frac{34.6}{34.8} \mathrm{~b} \quad 45.0$
34.8 b - 45.5
47.1
$\frac{51.1}{46.6}$
$34.0 \quad 45.7$
$34.2 \quad 42.7$
$33.9 \quad 40.8$
$34.4 \quad 4 \quad 1$
a/ Man attains the specified age at beginning of year and retires then. Figures for attainments of age 65 in 1978 and after are also applicable to women: for earlier years in the table, the figures for women are somewhat higher.
b/Benefit is computed under the transitional-guarantee method.
c/Figure for average wage for 1987 is from 1988 Trustees Report.

The data for the average-wage person retiring at age 62 show much greater stability in the replacement rate for persons attaining such age in 1976 and after than those for persons retiring at age 65. For the age-62 retirees, the rates are about 33-34\% in all years. This clearly demonstrates that the extent of any notch problem for those who retired at age 62 (about one-third of all 1979 retirees and a somewhat higher proportion of later retirees) is relatively small, especially as compared with the situation for age-65 retirees.

On the other hand, the data for those retiring at age 65 show that the replacement rates for those retiring in 1985 and after (born in 1920 and after) are level at about 41\%, which is somewhat higher than for those retiring at age 65 in 1975 or before. However, the rates for those retiring at age 65 in 1976-81 rise steadily and show clearly the big advantage accorded those born in 1911-16 who worked up to age 65. This is the group that has come to be called the "bonanza group".

Chart A
REPLACEMENT RATES (PERCENTAGE OF FINAL YEAR'S EARNINGS) PAYABLE TO WORKERS RETIRING IN VARIOUS YEARS AT AGE 65, HAVING BAD AVERAGE EARNINGS DURING THEIR CAREERS


Source: Office of the Actuary, Social Security Administration, January 27, 1988.
4. The benefits paid to the notch group (those born in 1917 and thereafter) are at about the level that Congress intended for all future retirees, whereas the benefits paid to those born in 1911-16 -- especially those who worked well beyond age 62 -- are higher than Congress believed desirable.

The entire "notch" problem arose from a technical flaw in the 1972 Amendments, which, under the actual economic experience, was producing ever-increasing replacement rates, instead of level ones, as had been intended. ${ }^{1 /}$ This technical flaw in the 1972 Amendments produced the increasing replacement rates shown in Chart $A$ and Table 3 -- culminating, for the average-earnings worker retiring in 1981 at age 65, in a 51.1\% replacement rate. In comparison, the replacement rate for a similar worker retiring in 1973 was only $39.2 \%$.

This ever-increasing replacement rate trend had to be corrected, or workers would eventually have received benefits higher than their recent earnings, and the system would have gone bankrupt. A level replacement rate had to be substituted for the projected everhigher replacement rates, and this was the principal goal of the 1977 Amendments. The level line in Chart A for those retiring in 1985 and later at age 65 shows the stable replacement rate that the 1977 Amendments were designed to produce, so as to accomplish this goal of stability.

The benefit computation procedure in current law which produces these stable replacement rates is based on Average Indexed Monthly Earnings (AIME) . 2/ The result of this and various other technical provisions governing the benefit-computation procedure is a level replacement rate indefinitely into the future. In all probability, this will result in a more or less steady increase in the level of real dollar benefits as wages and prices move upward. Chart B shows the benefit amounts for the average-earnings worker retiring at age 65, expressed in 1988 dollars.
$1 /$ This result is commonly, although somewhat incorrectly, referred to as "double indexing", because the benefit level, both after and before retirement age, was indexed by price changes, and because the insured persons had earnings records that were affected by wage increases. Under some economic scenarios, no flaw would have occurred (see Appendix D). For more details, see Robert J. Myers, "The Social Security Double-Indexing Myth", Benefits Ouarterlv, Third Quarter, 1986.

2/In computing average earnings for benefit purposes, the calculation is made from the individual's highest earnings in a specified number of years. Such number depends primarily on the individual's year of attainment of age 62 (or disability or death if this occurs before age 62); the number cannot exceed 35 in any event. Before selecting the highest earnings and averaging them, the earnings before age 60 (or before the second year prior to disability or death if this occurs before age 62) are "indexed" (i.e., increased) so as to reflect the growth in nationwide wages in the past (for more details, see page 3 of Appendix D).

## ILLUSTRATIVE SOCIAL SECURITY BENEFITS PAYABLE TO WORKERS RETIRING IN VARIOUS YEARS AT AGE 65, HAVING HAD AVERAGE EARNINGS DURING THEIR CAREERS

Benefit amounts expressed in 1988 dollars


Source: Office of the Actuary, Social Security Administration, January 27, 1988.

In brief, the way that the formula works is that benefits are based on indexing the earnings record by wage changes up to age 60, using actual earnings for ages 60 and after, and indexing benefits by price changes from age 62 on. (For a detailed discussion of the benefit-computation procedures of the 1972 and 1977 Amendments, as well as a further discussion of the transitional-guarantee provision of the 1977 Amendmentrs, see Appendix D.) A different benefit formula applies for each birth cohort (i.e, those born in 1917, those born in 1918, etc.); the "dollarband" factors in the formula are modified each year to reflect changes in average wage levels.

If, for steady workers, wage and price levels move, over the years, in fixed relationships (e.g., wages increase 5.5\% per year, and prices rise 4\% per year), it can readily be demonstrated mathematically that thé replacement rates will remain constant. However, the dollar amounts of the benefit for comparable earnings histories and ages at retirement will increase for each cohort. This will also be the case, although to a lesser extent, for the current benefits payable to those who retired in earlier years.

A specific example may make this clearer. Assume that, over many years, wages increase by $5.5 \%$ per year, and prices increase by 4\% per year. Consider the Primary Insurance Amounts (PIA) Of persons retiring at age 62 (whose actual monthly benefits will be 80\% of the PIA) who have had earnings equal to the nationwide average wage for their entire working career. In all cases, the PIA replacement rate will be $41 \%$, but the initial benefit amount will be $5.5 \%$ higher for each successive cohort. However, when the current benefit (i.e., that payable in the current year, regardless of when retirement occurred in the past) is considered, the benefit for those who retired in the current year will be about $1.5 \%$ higher than that for those who retired in the previous year. The reason for this is that the Cost-of-Living Adjustment (COLA) of 4\% narrowed down the 5.5\% difference in the initial awards to this extent. Similarly, a 1.5\% differential will exist between each successive cohort for earlier years of retirement.

This was the intent of the 1977 Amendments, and the way that the system is working. It was planned that, for any particular age at retirement, the replacement rates should remain level. As a result, the dollar benefits payable as of the date of retirement will keep up to date with rising wages, so that the level of living of beneficiaries rises to the extent that real wages rise.4/

[^0]The PIA replacement rates will remain level at $41 \%$, but the current benefits will show a small notch among retirement-year groups. Those retiring at the beginning of year "t" will have a current benefit amount that is about $3 \%$ higher than those retiring in year "t+1" (because, although the latter have a 6\% larger amount than the initial award of the former, such initial award is increased by a COLA of 9\%). Further, those retiring in year "t+2" will have a benefit amount at award which is 6\% higher than the then-current amount for retirees in year "t+1" and about $3 \%$ hiqher than for retirees in year "t" (because no COLA was paid in year " $t+2$ ", because prices remained unchanged in year " $t+1$ ").

Thus, it is the nature of the current benefit-computation procedure that small notches can occur between adjacent cohorts, even though all other conditions are the same. (For further details on this complex matter, see pages 177 to 179 of item 8 in the Bibliography, Appendix C.)

However, the benefit-computation procedures in the 1977 Act were not applicable to those who attained age 62 before 1979. Their benefits continued to be computed under the faulty procedure in the 1972 Act (as described in detail in Appendix D) I even with respect to earnings after 1978. Thus, this group continued to receive windfall benefits insofar as they worked after age 62.

In general, Congress had the same intention in 1972 as it did in 1977 -- that is, to establish an automatic system that would keep benefits at the time of retirement up to date with wages, and up to date with prices thereafter. The idea was to have a. stable replacement rate and, with benefits once awarded, stable purchasing power. However, the actual economic conditions following the 1972 Amendments and a technical flaw in those amendments resulted in the constantly increasing replacement rates and benefit levels that outpaced increases in wages. The 1977 Amendments corrected the flaw and carried out the earlier intention.

If the 1977 solution had been adopted in 1972, the benefit for retirement at age 65 for a person born in 1916 would have been computed by the following formula: 90\% of the first $\$ 170$ of AIME, plus $32 \%$ of the $\$ 854$ of AIME, plus $15 \%$ of AIME in excess of $\$ 1,024$. (This formula is derived by projecting back the bend points of the formula for the 1917 cohort group by taking into account the increase in nationwide average wages from 1976 to 1977, 5.9932\%.)

Under this formula, the benefit payable for January 1982 for a person who was born at the end of 1916 and who retired at the end of 1981 with an average-earnings history would have been $\$ 503$. This is $\$ 120$ less than the benefit actually paid (\$623) and is actually slightly -- but appropriately -- less than the benefit of a similar person who was born a few days later, at the beginning of 1917 (\$535). This confirms that the benefits payable to those born in 1917 and after are at an appropriate level according to the intent of Congress, but that those for persons born in earlier years who worked beyond age 62 (after 1978) are unduly high. Appendix E provides a more technical analysis of the points made in this section.
5. The later the age at retirement, the greater the benefit difference or "notch" -- because of the differences in the benefit-computation methods in the 1972 and 1977 Acts as they were affected by the economic conditions of the 1970 s and early 1980 s .

Table 4 illustrates the notch for people retiring in different years for two earnings histories. As the date of retirement occurs later, the difference in benefits (or notch) increases significantly. The differences for retirements at age 62 are quite small (and about half the beneficiaries apply for benefits at age 62). But the differences increase to almost $\$ 150$ per month for the average-wage case and $\$ 200$ for the maximum-wage case (for retirement at ages 68-70).

## ILLUSTRATIVE INITIAL MONTHLY BENEFITS FOR PERSONS BORN IN LATE 1916 AND EARLY 1917 WHO HAVE SAME EARNINGS RECORD AND RETIRE ON SAME DATE

| Date of Retirement | Average-Fage Earner |  |  | Maximum-Wage Earner |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Born in | Born i |  | Born in | Born in |  |
|  | 1916 | 1917 | Difference | 1916 | 1917 | Difference |
| January 1979 | \$312 | \$306 | \$ 6 | \$ 395 | \$ 388 | \$ 7 |
| January 1980 | 388 | 365 | 23 | 493 | 463 | 27 |
| January 1981 | 500 | 449 | 51 | 635 | 570 | 65 |
| January 1982 | 623 | 535 | 88 | 789 | 679 | 110 |
| January 1983 | 716 | 592 | 124 | 900 | 755 | 145 |
| January 1984 | 773 | 638 | 135 | 990 | 826 | 164 |
| January 1985 | 834 | 691 | 143 | 1,084 | 904 | 180 |
| January 1986 | 894 | 747 | 147 | 1,178 | 985 | 193 |
| January 1987 | 937 | 794 | 143 | 1,255 | 1,056 | 199 |

Note: Figures rounded down to exact dollars (when not already an exact dollar).

The more favorable treatment of earnings after age 62 under the 1972-Act procedure than under the 1977-Act procedure can be explained as follows: In determining the average earnings on which benefits are based, earnings at and after the initial benefit computation point (age 62) can be substituted for earlier years of lower earnings. Under the 1972 law, this procedure frequently increased average wages substantially, and thus also benefits. Under the 1977-Act benefit-computation procedure, wages before age 60 are indexed, whereas later earnings are not indexed, but rather are used in their actual amounts. As a result, such later earnings are not usually much higher than such indexed earlier earnings; thus, when used, they do not result in significant increases in the average. The same thing occurs when persons retire at age 62 or older and then return to work and later obtain benefit recomputations.

Furthermore, the economic conditions in the 1970 s and early 1980s (when prices and wages both increased greatly -- and, at times, prices rose more rapidly than wages) made the difference in the results from the two procedures even more important. Thus, the notch became larger than it would otherwise have been if economic conditions had been "normal" (i.e., as had been anticipated in the mid-1970s when the legislation was being developed).
6. The "notch" arises because those born in 1911-16 are receiving an unintended windfall -- not because those in the "notch group" receive "too little". It was inevitable that, if correction for replacement rates that were too high were made, birth cohorts following those who had been receiving excessive benefits would get less. The notch situation could have been reduced -- and, in many cases, eliminated altogether -- if, in 1977, Congress had adopted a provision that placed a cap on the windfall being received by workers born before 1917 who worked in 1979 and after.

It is clear that the flaw in the benefit-computation procedures in the 1972 Amendments had to be corrected if the replacement rates intended to be produced by the 1972 Amendments were to be achieved or, at least, to be more nearly replicated. If the increased replacement rates that had developed by 1977 were to be maintained for future retirees, sizable increases in the cost of the program would have been involved. And Congress did not wish to have this occur. It is also clear that, in those corrections, some birth cohorts had to get lower benefits than those who are receiving benefits higher than had been intended. There is no way that this conclusion can be avoided, and to increase benefits for those born after 1916 would simply expand the number of people who would receive an unintended windfall. This conclusion is borne out by all of the preceding analysis.

It would have been possible, however, largely to have prevented the windfalls for persons born in 1916 or before who worked beyond age 62 (after 1978) by not continuing completely for them the faulty benefit-computation method resulting from the 1972 Amendments.

Such individuals could have been given both the accrued benefit amount as computed under the 1972 Act for all earnings credits for employment before 1979, including all COLA's thereon (both past and future) and also an additional benefit based on earnings credits acquired after 1978. Such additional benefit would be based on the excess of (a) the benefit amount as computed under the AIME method for all earnings credits acquired after 1950 over (b) the benefit amount as computed under the AIME method on earnings credits only for 1951-78. In making these computations, the AIME benefit formula for the 1979 cohort would be used, with indexing of past earnings to 1977 and with continuation of the 1\% Delayed-Retirement Credit applicable to persons born prior to 1917 (rather than 3\%, as applies for persons born in 1917 and after).

As a specific example, consider a person who attained age 62 in 1978, but who worked until retiring at the end of 1981. The 1977 Act could have based the total Primary Insurance Amount on the sum of the PIA determined as of the end of 1978, plus all subsequent COLA's, and the PIA based on the excess of (a) the PIA computed under the AIME method determined from earnings through 1981, including the appropriate COLA's over (b) the PIA similarly computed, but based on earnings only through 1978. Appendix $F$ gives the detailed computations for such an individual who had maximum covered earnings in all years in 1951-81.

Table 5 shows the effect of such a revised benefitcomputation procedure for persons who attained age 62 at the end of 1978, as against what present law provided for persons who attained age 62 early in 1979. Data are presented for various retirement dates and two earnings levels. As Table 5 clearly shows, the revised benefit-computation method -- if only it had been adopted in 1977 -- would have prevented most of the "notch" problem.

TABLE 5

## ILIUSTIRATIVE INITILAL MONIELIY BEREHFITS FOR PERSONS BORN IN LATE 1916 UNDER KERAT HOUTD HAVE BEEEN PROPER PROCEDURE AND FOR PERSONS BORN IN EARLY 1917 UNDER PRESENT LAN WHO HAVE SAME EARNILGS RECORD AND RETIRE ON SAME DATE

| Date of Retirement | Average-Mace Earner |  |  | Maximm-Waca Earner |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Born in | Born in |  | Born in | Born in |  |
|  | 1916 | 1917 | Difference | 1916 | 1917 | Difference |
| January 1979 | \$312(312) | \$306 | \$ 6 | \$395(395) | \$388 | \$ 7 |
| January 1980 | 374 (388) | 365 | 9 | 477(493) | 463 | 14 |
| January 1981 | 464 (500) | 449 | 15 | 597 (635) | 570 | 27 |
| January 1982 | 557 (623) | 535 | 22 | 722 (789) | 679 | 43 |
| January 1983 | 613 (716) | 592 | 21 | 793 (900) | 755 | 38 |
| January 1984 | 651(773) | 638 | 13 | 859 (990) | 826 | 33 |
| January 1985 | 693 (834) | 691 | 2 | 922 (1084) | 904 | 18 |
| January 1986 | 723 (894) | 747 | -24 | 969 (1178) | 985 | -16 |
| January 1987 | 767 (937) | 794 | -27 | 1049 (1255) | 1056 | -7 |

Note: Figures in parentheses are benefits under 1972-Act basis (i.e., present law). The difference between such figure and the figure to its left represents the portion of the notch which is due to the windfall resulting forpersons born before 1917 who work well beyond age 62 (after 1978).

Note: Figures rounded down to exact dollars (when not already an exact dollar).

This is vivid proof that persons born in 1917-21 have not been unfairly discriminated against. Rather, those born before 1917 who worked well beyond age 62 after 1978 have received undue windfalls. The figures in parentheses in the two "Born in 1916" columns show the actual benefits payable to these persons and clearly demonstrate that the vast majority of the notch problem is due to the windfall which is represented by the differences between the figures in parentheses and those immediately to their left. The differences between the benefits of those born in 1916 as compared to those born in 1917 are, on the whole, only about one-fifth as large for the alternative procedure as under present law.
7. Reducing the "notch" now by cutting the benefits of those receiving the unintended windfall would require reducing benefits for those already receiving them and who are counting on a continuation of the level of benefits awarded to them. Conversely, increasing the benefits of those born in the notch years would, in turn, create new relative notches affecting those born in later years (and also would increase the already unfavorable differential against those born in about 1910 or before).

Since the "notch" is caused by benefits for those born in 1911-16 being higher than was intended, it might seem at first glance that the solution to the "notch" problem would be to reduce those benefits to the replacement rates intended and provided by the 1977 benefit-computation procedure. This is, of course, a logical possibility, although it would mean reducing the benefits of people who have been receiving them, in some instances for a long time, and who are counting on the level of benefits they are receiving in their retirement planning. Both Congress and the Executive Branch, in the past, have shown great reluctance to reduce benefits already awarded. This "solution" is of doubtful equity and, of course, would do nothing to help the group born in 1917 and after who are complaining.

On the other hand, if benefits were to be increased for those in the notch years (however defined, whether births in 1917-21 or in some longer period after 1916), this would create a new notch in benefits when considered relative to earnings (i.e., in replacement rates as are displayed in Table 3). Also, the already-existing unfavorable differential in replacement rates for persons born before about 1910 as against those for persons born in 1917-21 (see Table 3 and Chart $A$, for attainments of age 65 before 1975) -- which could be referred to as another notch -would be widened.

## IV. REVIEW OF PENDING LEGISLATION VIEWS OF VARIOUS ORGANIZATIONS

A number of bills have been introduced to increase benefits for the "notch babies", and several Members of Congress have testified in favor of such bills. Other Members, however, have expressed opposition to such legislation, and favor no action on the notch. Appendix $G$ presents a brief summary and cost analysis of various pending bills that address the notch issue, prepared by the Congressional Research Service. It should be noted that the cost projections are only for nine years and do not include the substantial costs beyond then.

As part of its study of the notch, the panel invited interested organizations and individuals to submit written testimony on this issue. In addition, the panel had the benefit of reviewing testimony submitted to the Senate Special Committee on Aging at its hearing on February 22, 1988 and to the House Ways and Means Subcommittee on Social Security at its hearing on April 14, 1988. The following discussion relates to views expressed by large national organizations.

The National Committee to Preserve Social Security and Medicare (NCPSSM) emphasized that correcting the notch is one of its major legislative proposals. Its representatives testified that the transition enacted in 1977 did not work as Congress intended, and it favors increasing benefits by enacting a new and longer transition period, as proposed in the Ford/Sanford bills (H.R. 3788/S. 1830). The NCPSSM testified that such a change would not undermine the financing of the trust funds, and it would increase the public perception of the system's fairness.

The Veterans of Foreign Wars of the United States and the Gray Panthers favored legislation to correct the notch, as a matter of equity.

The American Association of Retired Persons (AARP) testified that no legislation on the notch is needed, because beneficiaries born after 1916 are receiving proper benefits. AARP emphasized that any change would significantly undermine the financial integrity of the system and create intergenerational inequities in the future.

The National Council of Senior Citizens (NCSC) recommended that no legislative action be taken on the notch, and expressed concern over the fact that the changes supported by other groups are extremely costly and would put the system at serious financial risk. The NCSC supports a massive public education effort to explain the facts of the notch, and to dispel the perception of unfairness in the Social Security system.

Save Our Security (SOS), a coalition of 110 national, State, and local organizations, submitted testimony stating that the action taken by Congress in 1977 was responsible and that benefit levels have evolved as intended by the 1977 legislation. SOS cautioned that any changes would have significant costs and would weaken the financial foundation of the system, unless accompanied by increases in the payroll tax. SOS suggested that the 1989 Advisory Council on Social Security could be a forum for further discussion of the notch, if deemed necessary. Forty-two of its constituent organizations co-signed the SOS testimony, as presented before the Senate Special Committee on Aging.

The United Transportation Union, whose members are covered under the Railroad Retirement program but are affected by the notch situation through their tier-1 benefits, expressed the view that, in the light of cost considerations, no legislative action on this matter should be taken. The National Grange expressed a similar view. The American Academy of Actuaries summarized the situation as to how the notch occurred and pointed out that persons born after 1916 are equitably treated and receive reasonable benefit amounts.

In addition to the aforementioned groups, other individuals and organizations from across the country have expressed views on both sides of the notch; some favor no legislative action, while others support a variety of proposals to increase benefit levels for those affected by the notch.

Since the "notch" arises because the benefits of some of those born prior to 1917 are higher than was intended, there is no reasonable basis for reducing the "notch" by raising the benefits of those born later. Nor is it desirable to reduce the benefits of those already receiving them and counting on their continuation. Therefore, the panel recommends no change in present law that would either award additional benefits to those born after 1916 or lower benefits for those born prior to 1917.

Several courses of action could be taken in response to the "notch". Additional amounts could be paid to those with "low" benefits -- as would be done, in ingenious, but administratively complex manners, in a number of pending bills (which are described, as to provisions and added cost, in the GAO report -item 5 in Appendix C).

The panel has not analyzed each of these pending bills, as to their individual merits or disadvantages, in this report because it believes that no action to increase benefits for this special group alone should be taken. On the other hand, reductions could be made for those with "high" (or "bonanza") benefits -- either all at once or gradually in the future (such as by withholding COLA's); no pending bill proposes this. Still another course of action would be to leave the present law unchanged.

Some who advocate paying additional amounts to certain beneficiaries who were born in 1917 or later -- which could result in increased expenditures from the trust funds of $\$ 50$ - 300 billion over the years, depending upon the proposal -assert that the monies to do so are readily available, because of the projected huge build-up of the trust-fund balances in the next three decades. Without taking any position on whether such a build-up is (or is not) desirable, the panel points out that, if monies in the trust funds are used for this purpose, the adequate financing of the entire program would be adversely affected. As a result, additional revenues of equal magnitude would need to be raised in some manner at some future time.

Those who suggest increasing the Social Security benefits of persons in the notch group have not identified, clearly and specifically, the source of additional revenue to pay for such increases. Because the OASDI program is currently in close longrange actuarial balance, any significant increase in benefit outgo cannot be financed out of currently forecast revenues or the existing fund balance.

This panel has come to the conclusion that, although the present situation is undesirable and unfortunate, no change in law is desirable. To do so by significantly increasing benefits of some persons who were born in 1917-21 (or even several later years) -- as would the several aforementioned pending bills --
would be very undesirable, based on cost, administrative feasibility, and equity considerations. Huge costs over the years ahead would be involved, as well as difficult and costly administrative procedures. The additional benefits would go to persons who are already receiving proper and equitable amounts and would result in further notches and inequities against other groups of beneficiaries whose benefits would not be raised. The elimination or reduction of one perceived inequity would simply introduce a new inequity in the benefit structure -- beneficiaries in the current notch group would have higher replacement rates than those born in later years.

It would now be inequitable and contrary to past policy to reduce real benefits to men and women well into their retirement. Moreover, it would be very difficult to make such reductions -both from a public-relations viewpoint and from an administrative standpoint.

In summary, the panel reiterates that the real problem in this matter is that those persons who were born before 1917 who worked well beyond age 62 after 1978 receive undue windfalls. Those born after 1916 are equitably treated, consistent with the intent of Congress, and receive proper benefit amounts (which, incidentally, are far more than the amounts "actuarially purchased"). There is no reason why younger workers should, over the years, pay more taxes to provide windfall benefits to this group. Conversely, although there is a case for reducing (gradully or otherwise) the windfall benefits for some persons born before 1917, this would not now be equitable. The panel therefore recommends that congress take no legislative action on the notch issue.

## Qunited States Senate <br> COMMATTEE ON FIMANCE <br> Washington, DC 2051045200

March 7, 1988

Honorable Robert M. Ball
National Academy of Social Insurance
505 Capitol Court N.E., Suite 300
Washington D.C. 20002
Dear Mr. Hall:
We request that the National Academy of Social Insurance conduct a study of the Social Security "notch" issue. In our judgment, policymakers would benefit significantly from the Academy's nonpartisan expertise on this important subject.

The study should include a background examination of the legislation and economic conditions that created the disparity in benefit levels between beneficiaries born before 1917 and those bornlater. It should identify all options and analyze the impact of each on Social Security beneficiaries and taxpayers and the old-age and survivors insurance trust fund. We hope that your findings and recommendations would be available this spring.

We look forward to your response to this request.
Sincerely,


Daniel Patrick Moynihan
Chairman
Subcommittee on Social Security and Family Policy


## Appendix B

Purposes and Organization of the National Acadeny of Social Insurance

## MISSION

The National Academy of Social Insurance is a nonprofit, nonpartisan organization devotedto furthering knowledge and understanding of Social Securityandrelatedprograms.

## Goals of the Academy

1. To create a forum inwhichtoexploreanddebateissues facingthe fieldofsocial insurance;
2. To encourage the development of future scholars and administrative leaders;
3. To promote and support research on social insurance programs, their relationship to other public and private programs andotherissues; and
4. To increase opportunities for the public to learn about social insurance programs andissues.

## Acadeny Members

The Academy's Founding Members are recognized experts on the Old-Age, Survivors, and Disability Insurance program, commonly referred to as "Social Security". They actively participate in social insurance policy and practice by writing, reviewing, speaking, conducting research, administering and teaching others about Social Securityandrelatedprogram. Membership is by invitation of the Board.

## Academy Audiences

- Recognized experts in social insurance, including members of Congress and their staffs, administrators, policymakers and representativesfrom govermment, industry, andlabor, and scholars from the disciplines of actuarial science, economics, history, law, political science, public policy, and social welfare;
- Students attheundeqraduate, graduate, anddoctorallevelandmid-career professionalswhoareundertakiqadvanced study of social insurance issues in the disciplines comprising the field of social insurance; also, the instructors and professorstioteachandadvisethem;
- Staff of Congress and Senate members' offices, key Congressional cmnittees, the General Accounting Office, the Congressional Budget Office, the Congressional Research Service, the Health Care Financing Administration, the Social Security Administration, the Office of Management and Budget, and other offices of the executive branch;
- Researchers undertaking the study of issues related to social insurance;
- The American public, includingthoseworkers and employers that contribute to the Social Security trust funds and those receiving benefits as retirees, survivors, dependents and the disabled; also, those representing these groups in the policymaking process: business, labor, and consumer advocacy groups.


## Academy Activities and Services

The Academy is a Resource Center for Current Social Insurance Experts. There are numerous opportunities for active exchange of ideas among these experts and with a wider audience. Theyreceiveabi-monthlynewsletterand aweeklynews clipping service. The Academy sponsors an annual meeting of these recognized-.

The Academy has designed the Education Program for Leadership Development in Social Security and Related Programs, whichconsistsofstudentintemships, faculty, and doctoralfellowships, student awards, library of key historic and current referenceson the Social Security Program, an annual lecture and a book of Readinas on Social Security and Related Procrams

The Academy's Program of Research includes an annual research conference, published proceedings, studypanelsonspecificissues, consultationbyexperts, research awards, andgrantstohelp support selected research projects or publications.

The Academy has begun four activities as part of itspublic Awareness Initiative: an Information Clearinghouse, a Speaker Referral Service, a Manuscript Review Service, and Public Forums. In addition, for the Washington audience of policymaking and administrative staff, a series of issue discussion groups and seminars is planned.

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## Appendix D

## WHAT CAUSED THE NOTCH, TOGETHER WITH DESCRIPTION OF METHODS OF BENEFIT COMPUTATION UNDER THE 1972 AND 1977 ACTS

In considering the "notch" in Social Security benefits, it is desirable to explain what caused the notch, which involves a discussion of the general background of the benefit-computation procedures in the 1972 and 1977 Acts. Following this is an explanation in some detail as to the procedures used to determine benefit amounts under the 1972 and 1977 Acts, including for the latter the special transitional-guarantee provision that was made available only to persons born in 1917-21, the so-called "notch babies".

The Social Security Amendments of 1977 made several changes in the method of computing benefits. The benefit-computation method introduced in the 1972 Amendments continued to be applicable to all those born in 1916 or before, whereas those born in 1917 and later had their benefits computed under the new provisions. The different benefit amounts resulting from these two methods of computation produced the "notch". An important point to keep in mind is that the changes unintentionally affected the computation of benefits for those who retired at age 62 differently than they affected benefits for those who worked beyond age 62, so that there is a larger notch between those who worked for a considerable period after age 62 than for those who did not. In part, thus unintentional effect arose because of the economic conditions experienced after 1977.

## General Basis of Benefit Computation Under 1972 Act, and Why the Method Had to Be Chanqed

The 1972 Amendments first introduced a method of automatically keeping Social Security benefits up to date with rising prices. The method used was the same as that used from time to time in ad hoc legislation in the past to update benefits to changes in wages and prices. However, under the economic conditions that prevailed after the 1972 Amendments went into effect, the procedure proved faulty. Under the assumptions used in the long-range actuarial estimates that were made in the mid1970s about the future relationship of wages and prices, this benefit-computation method would have greatly increased replacement rates, and thus the cost of the system.

Here is the way the 1972-Act formula worked. Benefits were determined by a table in the law. For each Average Monthly Wage level (actually shown in groups of average wages), as defined for Social Security purposes, there was a specified benefit amount. Under the automatic provisions, when the Consumer Price Index (CPI) went up $3 \%$ or more, the benefit amount for each average-wage
interval in the table was increased by the same percentage as the rise in the CPI. Thus, in early 1977, a $\$ 300$ Average Monthly Wage produced a benefit of $\$ 246.50$. In June 1977, there was a $5.9 \%$ increase in the benefits, and the benefit table was rewritten so that an Average Monthly Wage of $\$ 300$ produced a benefit $5.9 \%$ higher, or $\$ 261.10$.

As prices rise, however, so do earnings, and the higher wages were included in the computation of the Average Monthly Wage on which the Social Security benefit was based. Thus, on retirement, say in 1985, the worker who had an Average Monthly Wage under Social Security of $\$ 300$ in 1977 would no longer have had an average wage of $\$ 300$, but -- depending on the number of wage increases he or she had had since 1977 -- would have reached a higher average wage. The benefit was no longer the amount shown in the table for the $\$ 300$ average wage, but rather an amount related to some higher average wage. Thus, it was a combination of the increase in the Social Security benefit for any particular average-wage level plus the increase in the average wage itself which resulted in an updating of the level of protection for those retiring in the distant future.

While this indexing formula worked reasonably well for persons retiring at age 62 in the early 1970s, it was very sensitive to the behavior of wages and prices for those still working who would retire many years off in the future. For example, if wages and prices rose an average of $6 \%$ and $5 \%$ per year, respectively, by the year 2050, in most cases, benefits would have been higher than any wages the worker had ever earned. On the other hand, if wages and prices rose $5 \%$ and $2 \%$, respectively, replacement rates for the average worker would drop from $41 \%$ in the 1970 s to about $30 \%$ by 2050. If the relationship of wages and prices continued after the 1972 Amendments to have maintained approximately the same relationship as they had in the 20 years previously (a $4.3 \%$ increase in wages as compared to a 2.3\% increase in prices), the benefit-computation procedure would have produced a more or less level replacement rate. However, under the conditions of rapid inflation which were experienced after the 1972 Amendments, and the projection of both a higher rate of inflation and a smaller gap between increases in wages and prices for the future, the 1972 computation method was shown to be seriously flawed.

## General Basis of 1977-Act Benefit-Computation Procedures

The 1977 Amendments solved the foregoing problem by eliminating the interaction of wages and prices in the benefit-computation procedure. Basically, the computation of benefits was based on past earnings, with such earnings indexed (or adjusted) to reflect changes in the general level of wages. Retirement benefits for those on the roll were kept up to date with price increases
following the attainment of age 62. This separation of the effect of wages on benefit levels and the effect of prices on benefit levels came to be referred to as "decoupling". The interaction of wages and prices in the 1972 benefit-computation procedure has been referred to in shorthand (although somewhat incorrectly) as "double indexing".

Under the 1977 Amendments, replacement rates are kept level for retirees in various future years, indefinitely into the future, by indexing the earnings records up to age 60 (actual earnings are used after that) and also indexing the formula itself to the rise in average nationwide wages. The amount of earnings subject to a particular percentage in the benefit formula is increased automatically as average wages in the nation rise. This combination of indexing the entire earnings record up to age 60, and indexing the benefit formula as well, will result in replacement rates 20 , 30, or 40 years from now that are the same as replacement rates today. The purchasing power of benefits is separately maintained by indexing the benefits to the Consumer Price Index, as in the 1972-Act procedure.

## Detailed Description of Method of Benefit Computation Under the 1972 and 1977 Acts

The Primary Insurance Amount (PIA) is the basic benefit for which a single retired worker (or a married worker, exclusive of any additional benefits for spouse or children) is eligible to receive as old-age insurance benefits at the Normal Retirement Age (currently, age 65). Almost all OASDI benefits are derived, directly or indirectly, from this basic benefit amount. The procedures under both the 1972 and 1977 Acts provided a method by which the PIA could be computed using a worker's covered earnings history and also certain additional information about price inflation and, as to the 1977 Act only, the rate of growth in average nationwide wages. Note that the term "earnings" includes both wages as an employee and self-employment income.

Period Used for Averasins Earnings. The PIA under either formula for retirement benefits for persons who had not had a previous "period of disability" is ultimately based upon a worker's average covered lifetime earnings after 1950 (in a few unusual cases, a computation method using earnings back through 1937 is used if it produces a larger amount). Average earnings are calculated as the worker's average monthly earnings during those years of highest earnings in the worker's "base years" after 1950. The number of years to be used in this computation depends on the worker's calendar year of birth. The PIA of someone born in 1917, for example, depends upon average earnings in the $\underline{23}$ years of highest

## Appendix D

 Page 4 of 8earnings (the number of years after 1950 -- or the year of attainment of age 21, if later --and before the year of attainment of age 62, minus 5 years). The PIA of someone born in or after 1929 depends on average earnings received in the $\underline{35}$ years of highest earnings. Persons who have had a period of disability and who recovered before age 62 have their average earnings computed over a shorter period.

1972-Act Benefit-Computation Formula. Under the 1972 Act, the worker's Average Monthly Wage (AMW) was used to determine the PIA. For example, underlying the table in the law, the approximate basic PIA formula applicable for benefits for June 1976 through May 1977 consisted of eight brackets as follows:
$137.77 \%$ of the first $\$ 110$ of AMW
$+50.10 \%$ of the next $\$ 290$ of AMW
$+46.82 \%$ of the next $\$ 150$ of AMW
$+55.05 \%$ of the next $\$ 100$ of AMW
$+30.61 \%$ of the next $\$ 100$ of AMW
$+25.51 \%$ of the next $\$ 250$ of AMW
$+22.98 \%$ of the next $\$ 175$ of AMW
$+\mathbf{+ 2 1 . 2 8 \%}$ of the next $\$ 100$ of AMW

Applying the formula to a worker with an AMW of $\$ 585$ yields a PIA of $\$ 386.40$-- the amount that a fully-insured single worker retiring at age 65 would receive (actually, the benefit payable was $\$ 387.30$, the difference being due to rounding procedures as to the AMW being considered in bands of several dollars' widths).

The procedure for making cost-of-living adjustments (COLA's) under the 1972-Act procedure was quite straightforward. Each year, the percentage factors in the PIA formula were raised in proportion to the increase in the previous year's Consumer Price Index. For example, for benefits for June 1975, the formula set the PIA at approximately $129.49 \%$ of the first $\$ 110$ of Average Monthly Wage, 47.09\% of the next $\$ 290$, 44.01\% of the next $\$ 150$, and so on through the remaining five brackets in the formula. Inflation during 1975 averaged $6.4 \%$, so each of the percentage factors in the PIA formula were raised by $6.4 \%$ to reflect the higher price level. The PIA formula automatically changed for benefits for June 1976 to $137.77 \%$ (1.064 times 129.49\%) of the first $\$ 110$, plus $50.10 \%$ ( 1.064 times $47.09 \%$ ) of the next $\$ 290$, and so forth for the remaining brackets in the formula. This adjustment caused each PIA to increase by exactly $6.4 \%$, the change in the Consumer Price Index during the previous year.

While this indexing formula worked reasonably well for retirees who were already collecting benefits, under certain circumstances it could produce rapid increases in the PIA's
payable to new retirees. One of these sets of circumstances arose in the middle and late 1970s when increases in the general price level far outstripped increases in average wage levels. Under these circumstances, the 1972-Act procedure generated adjustments in the PIA formula that caused PIA's to rise more rapidly than wages. As mentioned previously, the flaw in the 1972-Act procedure that caused this to occur is frequently (although erroneously) referred to as "double indexation" of benefits to inflation.

The net result of this combination of rapidly rising initial benefit levels and wages rising relatively slowly (as compared with prices) was that OASDI replacement rates rose much more steeply than Congress had intended when it passed the 1972 Act. New retirees in 1973-77 had unintended windfalls in their benefits. As a result, as mentioned earlier, if the rapid price inflation of the 1970s had continued, and if the 1972-Act benefit-computation procedure had remained in effect, replacement rates for new retirees would eventually exceed $100 \%$.

More fundamentally, soaring initial benefit levels in the mid-1970s threatened the long-term solvency of the OASDI system. The 1972 Amendments had been enacted under the assumptions that average wage levels would rise somewhat more rapidly than prices and that neither would increase very rapidly. When this expectation failed to be realized in the mid-1970s, benefit outlays began to rise more steeply than payroll tax collections. If this process had continued for long enough, it would have threatened the ability of the system to make benefit payments, even aside from the problem introduced by the so-called double indexation. But the flaw in the computation procedure in the 1972 Amendments made the problem much more severe by raising replacement rates at the same time that there was a slowdown in the growth of real (inflation-adjusted) payroll tax collections.

1977-Act "Permanent" Benefit-Commutation Procedure (AIME method). Under the 1977 Amendments, the flaw in the 1972-Act procedure was removed. Actual benefit amounts continue to be calculated by reference to the PIA, which in turn is based on average lifetime earnings in covered employment. Under the 1977-Act procedure, as applicable on a permanent ongoing basis, the average earnings are, however, calculated in a more complicated way. Before computing average earnings, the earnings in each year of the earnings record is multiplied by an index factor that reflects the growth in nationwide wages that has occurred since that year. For example, if average wages when a worker was age 30 are exactly half the level of wages when he or she attains age 60 , the earnings at age 30 are doubled before they are used to calculate Average Indexed Monthly Earnings (AIME). Earnings in and after the year when age 60 is attained are not indexed.

The 1977-Act method of indexing past earnings was a logical way to deal equitably with the effects of past wage inflation and real wage growth in the future. Since average wages tend to rise over time, earnings early in a person's career appear to be very low from the perspective of average wage levels when the worker reaches retirement age. Workers with relatively high earnings early in their careers, but low earnings later, received somewhat inequitable treatement under the 1972 Act procedure, which failed to index past earnings to reflect prevailing wage levels at the time those earnings were obtained. For obvious reasons, the 1972-Act procedure tended to give far greater weight to earnings late in a worker's career, when avearage wage levels were usually highest.

The 1977 Amendments also simplified the basic PIA formula by removing several of the brackets in the earlier formula. Under the new formula, the PIA for an insured worker attaining age 62 in 1988 is equal to (1) 90\% of the first $\$ 319$ of Average Indexed Monthly Earnings, plus (2) $32 \%$ of the amount above $\$ 319$, but less than $\$ 1,923$, plus (3) $15 \%$ of any amount in excess of $\$ 1,922$. The dollar amounts in this formula, known technically as the "bend points", are adjusted each year to reflect the change in nationwide average wages. However, for any given year-of-birth cohort of insured persons, the bend points are fixed on the basis of prevailing wage levels in the calendar year in which the cohort attains age 60. For each successive cohort, the bend points are therefore likely to be different levels for each cohort. This makes the 1977-Act formula different from that under the 1972 Amendments.

The indexation of earnings before age 60 and the annual adjustment of the bend points in the PIA formula ensures that initial benefit levels rise over time in proportion to the rise in wages. If wages increase faster than prices -- that is, if inflation-adjusted wages rise over time -- real benefits for new retirees will rise proportionately. But if wage growth is less than the increase in prices, initial real benefits will decline. Under the 1972-Act procedure, by contrast, initial real benefit levels could rise, even as prevailing real wage levels were falling.

After an insured worker reaches age 62 , he or she is protected against changes in the price level by annual COLA's linked to changes in the Consumer Price Index (except that, when the OASDI trust-fund balances are very low, the COLA is based on the lower of the CPI increase or the nationwide average-wage increase). The 1977 Amendments essentially provide that real retirement benefits for a cohort are left unaffected by price " inflation that occurs after age 62. Of course, insured workers who postponed their retirement until after age 62 will have their
earnings in and after the year of attaining age 62 counted in determining their Average Indexed Monthly Earnings and, hence, their basic benefit levels. But whatever that basic benefit level turns out to be, it is adjusted each year in proportion to changes in the CPI. Hence, its real value is unaffected by the vagaries of price inflation.

One of Congress' main goals in passing the 1977 Amendments was to stabilize benefit replacement rates. The procedure that it adopted established initial benefits at an affordable level while continuing to protect retirees against losses in living standards caused by rapid price inflation over the course of their retirement.

In setting long-term benefit levels, however, Congress consciously reduced replacement rates below the level that was expected to prevail in January 1979, when the new system would take effect. The purpose of this reduction was to offset some of the unintended rise in replacement rates for workers retiring in the mid-1970s. This rise, as noted earlier, was an unintended consequence of the defective indexation procedure adopted in the 1972 Amendments. Between 1973 and 1977, for example, the replacement rate for an average-wage worker with steady earnings who retired at age 65 rose from about $39 \%$ to $45 \%$. The 1977 Amendments lowered the long-run replacement rate for an average-wage retiree at age 65 to $41-42 \%$, a reduction in the replacement rate of 4 percentage points, or about $10 \%$ of the average rate in 1977. This choice of a long-term replacement rate for retirement benefits was based on a delicate assessment of Congress' responsibility to older workers (whose retirement financial plans could be seriously jeopardized by sudden changes in promised benefits) and to younger workers (who would be forced to bear the burden of paying for the extra benefits provided under the flawed benefitcomputation procedures of the 1972 Amendments).

Transitional-Guarantee Provision under 1977 Act. Obviously, there are very important differences between the indexing methods and the PIA benefit formulas adopted in 1972 and in 1977. The benefits that would be calculated for a particular worker under the two procedures would often differ quite widely. In some cases, especially when workers' relative wages were highest early in their careers, the benefit determined under the 1977 procedure would be higher than that under the 1972 procedure. But, benefits would be lower under the 1977 procedure for workers with high earnings late in their careers, which is the usual situation.

The shift in benefit-computation procedures, although necessary to protect the financial integrity of the OASDI system, presented the Administration and the Congress with a very difficult problem. On the one hand, there were strong arguments to
preserve the benefits already being paid to current retirees in 1977 and to workers who were about to retire. On the other hand, a compelling need existed to restore the long-term solvency of the program.

This conflict was resolved by having the benefits for workers born before 1917 calculated under the 1972-Act AME procedure, irrespective of when they retired. Workers born after 1921 would have their benefits calculated under the 1977 AIME procedure, regardless of their age at retirement. However, workers born in 1917-21 would have their benefits computed under one of two procedures which were prescribed by the 1977 Act and would be given the higher amount resulting from these two calculations.

The first of these procedures for those born in 1917-21 was simply the AIME one, which applies automatically to all retirees born after 1921. Thus, in no sense do workers in the 1917-21 year-of-birth transition group receive benefits under a less generous formula than workers born in a later year; the transition group always receives benefits that are no less generous than those available to later cohorts. The second procedure -- the "transitional guarantee" -- was provided so that the nominal benefit could never fall below the amount computed under the 1972-Act benefit-computation procedure on the basis of earnings before the year of attainment of age 62.

This transitional guarantee froze the PIA formula in effect in December 1978 under the 1972 Act. The transitional group were guaranteed nominal (not inflation-adjusted) benefits no lower than would be calculated under this formula. The PIA formula was not updated each year to reflect the inflation that occurred after December 1978 and before the calendar year in which the worker attained age 62. However, the benefit was updated to reflect inflation that occurred during and after the latter year.

For workers in the transition group who did not attain age 62 until several years after 1978, this temporary loss of protection against inflation could greatly diminish the value of the transitional guarantee. The second important feature of the transitional-guarantee procedure was its exclusion of earnings after the year of attainment of age 61. (These earnings could, of course, be used to calculate benefits under the new 1977-Act AIME procedure.) For obvious reasons, this exclusion significantly reduces the value of the transitional guarantee for workers in the transition group who worked past the year of attainment of age 61.

## Appendix E

## SUPPLEMENTARY TECHNICAL ANALYSIS

Appendix Table 1 gives illustrative figures for men -- in most cases, applicable also for women -- for those who retire at age 65 at the beginning of the year. Current monthly benefits for those who had maximum creditable earnings in all past years (after 1950) are shown for various years of birth (or, in other words, according to year of attainment of the specified retirement age). The line between the 1981 and 1982 rows separate the notch group (and later ones) from the pre-notch group. Appendix Table 2 gives corresponding figures for those who had average creditable earnings in all years.

Benefits payable currently in 1988 for persons retiring at age 65 -- i.e., the initial benefit increased by all of the applicable COLAs -- reflect the intended phase down for the 1916 births to the later ones. As discussed later, not all of the decrease is due to this intention, but the vast majority of it so arises. A low is reached for the 1920 births (year of retirement 1985), and then a gradual rise occurs.

This latter trend for retirements at age 65 -- for years of retirement after 1985 -- results from the long-run tendency for benefits awarded to be somewhat higher from year to year, because of gradually rising wages. Further, when the benefit awards of previous years for persons with the same relative earnings histories are increased for COLA's subsequent to award, the resulting current benefit amounts will still usually be lower than for awards of the current year, because wages generally rise more rapidly than prices (the reasons for this are discussed in some detail on pages 12 and 13).

As a result, one would expect that, if the benefit structure were reasonable and equitable, the current benefit (that payable in early and mid-1988) for retirement at a particular age for persons with the same relative earnings record would generally increase gradually from those from longdistant past years of retirement to that of the current year. This is, in part, what is shown in Appendix Tables 1 and 2 in the trend for the current benefit for retirement at age 65 for year of retirement 1972 up to year of retirement 1981. A portion of the increase from $\$ 653.30$ to $\$ 942.40$ for the maximum earner, and from $\$ 577.90$ to $\$ 741.50$ for the average earner, is due to this element. Then, all of the increase for year of retirement 1985 up to year of retirement 1988 (i.e., from $\$ 780.40$ to $\$ 838.60$ for the maximum earner and from $\$ 596.70$ to $\$ 626.20$ for the average earner) is due to this element.

## APPENDIX TABLE 1

ILLUSTRATIVE CURRENT MONIHLIY BENEFITS FOR MEN a/ WHO REITIRED IN VARTOUS YEARS AT AGE 62 OR AGE 65 WITH MAXIMUM CREDITABLE- IN ALU PREVIOUS YEARS

|  | Man Retiring at Aqe 62 |  | Man Retiring at Aqe 65 |  |
| :---: | :---: | :---: | :---: | :---: |
| Year of Attainment of Acre | Year of Birth | current <br> Benefit | Year of Birth | current <br> Benefit |
| 1972 | 1910 | \$505.10 | 1907 | \$653.30 |
| 1973 | 1911 | 522.70 | 1908 | 670.10 |
| 1974 | 1912 | 528.50 | 1909 | 691.20 |
| 1975 | 1913 | 574.00 | 1910 | 717.40 |
| 1976 | 1914 | 599.30 | 1911 | 763.90 |
| 1977 | 1915 | 630.10 | 1912 | 814.20 |
| 1978 | 1916 | 660.50 | 1913 | 856.50 |
| 1979 | 1917 | 680.00 | 1914 | 880.30 |
| 1980 | 1918 | 640.80 | 1915 | 910.10 |
| 1981 | 1919 | 601.30 | 1916 | 942.40 |
| 1982 | 1920 | 594.10 | 1917 | 850.20 |
| 1983 | 1921 | 613.50 | 1918 | 826.90 |
| 1984 | 1922 | 629.90 | 1919 | 792.30 |
| 1985 | 1923 | 643.40 | 1920 | 780.40 |
| 1986 | 1924 | 665.40 | 1921 | 802.20 |
| 1987 | 1925 | 689.90 | 1922 | 822.30 |
| 1988 | 1926 | 686.70 | 1923 | 838.60 |

a/Man attains the specified age at beginning of year and retires then. Figures for attainments of age 62 in 1975 and after, and age 65 in 1978 andafter, are also applicable to women; for earlier years in the table, the figures for women are somewhat higher. By "current monthly benefits" ismeantthe amount payable for January-November 1988.

## APPENDIX TABLE 2 <br> ILLUSIRATIVE INITIAL CURREAN MONIHLY BENEFFITS FOR MEN $\mathfrak{a}$ / WHO REIIRED IN VARIOUS YEARS AT AGE 62 OR AGE 65 WITH AVERAGE CREDITABLE EARNINGS IN ALI PREVIOUS YEARS

| Year of Attainment | Man Retirinq at Aqe 62 |  | Man Retiring at Age 65 |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  | Year of | Current | Year of | Current |
| of Age | Birth | Benefit | Birth | Benefit |
| 1972 | 1910 | \$448.20 | 1907 | \$577.90 |
| 1973 | 1911 | 458.80 | 1908 | 587.50 |
| 1974 | 1912 | 477.20 | 1909 | 600.70 |
| 1975 | 1913 | 491.10 | 1910 | 613.90 |
| 1976 | 1914 | 501.00 | 1911 | 635.60 |
| 1977 | 1915 | 511.70 | 1912 | 656.80 |
| 1978 | 1916 | 525.30 | 1913 | 682.90 |
| 1979 | 1917 | 535.90 | 1914 | 700.10 |
| 1980 | 1918 | 503.10 | 1915 | 717.40 |
| 1981 | 1919 | 478.10 | 1916 | 741.50 |
| 1982 | 1920 | 468.50 | 1917 | 670.10 |
| 1983 | 1921 | 480.30 | 1918 | 644.40 |
| 1984 | 1922 | 489.20 | 1919 | 611.20 |
| 1985 | 1923 | 495.60 | 1920 | 596.70 |
| 1986 | 1924 | 509.00 | 1921 | 608.30 |
| 1987 | 1925 | 524.00 | 1922 | 618.40 |
| 1988 | 1926 | 517.90 | 1923 | 626.20 |

$a /$ Man attains the specified age at beginning of year and retires then. Figures for attainments of age 62 in 1975 and after and age 65 in 1978 and after are also applicable to women; for earlier years in the table, the figures for women are somewhat higher. By "Current monthly benefits" is meant the amount payable for January-November 1988.

The deviation from the expected pattern of a gradual upward increase in the benefit amounts as the year of retirement becomes later is largely the result of the benefits having risen more than planned because of the faulty computation method of the 1972 Act, followed by the effect of the resulting need to make a correction.

If this correction had been made without any transition provision, the benefits for those retiring at age 62 in 1979-80 would have been even lower than under present law, but then there would have been, more or less, the proper gradual upward trend in the current benefit for year of retirement 1979 up to year of retirement 1988. Specifically, the current benefit for maximum-earnings retirees at age 62 in 1979-83 would be as shown in Appendix Table 3 if only the AIME benefit computation procedure had been applicable.

| Appendix Table 3 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COMPARISON OF | CURRENT | MONTHLY |  | ENEFITS | (PAYABL |  | FOR |
| JANUARY-NOVEMBER | 1988) | UNDER | AIME | METHOD | AND | UND | ER |
| PRESENT LAW FOR | VARIOUS | YEARS | OF | RETIREMENT | T AT | AGE | 62 |
| FOR PERSON | WITH M | AXIMUM | CRED | ITABLE E | EARNING |  |  |


| Year of Attainment |
| :---: |
| of Acre 62 |

1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988

AIME Method
N.A.
$\$ 633.80$
627.30
601.30
594.10
613.50
629.90
643.40
665.40
689.90
686.70

Present Law
$\$ 660.50$
680.00
640.80
601.30
594.10
613.50
629.90
643.40
665.40
689.90
686.70

Increase Under
Present Law
$\$ 46.20$
13.50


As shown by the first column, a decrease in the current benefit still appears during 1979-82, although it is a less precipitous one. It should be emphasized that this decline from 1979 to 1982 has nothing whatever to do with the notch problem per se. Instead, initial benefits under the AIME method fell then because of unusual economic conditions -- prices rose much more rapidly than earnings (analysis of this phenomenon is given in footnote 4 on page 13). Following year of retirement 1982, the expected pattern appears in the figures for the AIME method (and also for present law) -- namely, a gradual increase generally (although a very small decrease for 1988).

Accordingly, that part of the apparent notch problem which is exemplified by the current benefits for persons born in 1917-20 being lower than for those born later is due to the planned increase in benefits as wages rise (which is a natural and proper result of the indexing method adopted in the 1977 Amendments). However, most of the notch problem -- that part exemplified by the decrease in the current benefits for persons born in 1917-20 as against those born in 1916 -- is due to the windfalls given to those born before 1917 who worked long after age 62. Those windfalls were a result of the continuation of the application of the flawed benefit-computation method of the 1972 Act to their further earnings.

The result of making the necessary correction would have been an even larger notch in the benefits for age-62 retirees, as between the 1916 and 1917-18 births if it had not been for the phase-in provisions adopted in the 1977 Act. Thus, many of those born in 1917-18 have been treated significantly better than pure theory would have called for when the flawed benefit-computation method under the 1972 Act was corrected in the 1977 Act. In other words, these individuals are better off than they would have been if the benefit-computation procedures in the 1972 Act had been proper ones (i.e. only the appropriate AIME procedure had been used). The real problem, thus, results from the windfalls which have occurred for those born before 1917 who worked beyond 1978 at substantial earnings.

As shown in Appendix Table 1, the current benefit for the maximum earner for retirement at age 65 increases sharply as the year of retirement becomes later than 1972 -- the effect of the faulty benefit-computation method introduced by the 1972 Act -until peaking for retirement in 1981 (year of birth 1916). Then, a sharp drop occurs for retirement in 1982 (year of birth 1917), with further decreases for the next three years of retirement (births in 1918-20), until again the anticipated slow rise occurs for each later year -- reflecting the aforementioned long-run trend of benefit amounts under the Social Security program.

Thus, the presence of the notch is clearly indicated -- but only for those born after 1916, particularly for those who worked well beyond age 62. Quite naturally, the notch is much larger for persons who continue to work at relatively high earnings and retire at ages later than age 65 than for those who retire at that age.

The same general results occur for the average-wage earner, as shown in Appendix Table 2. Once again, the trend appears that the current benefit rises sharply as the year of retirement becomes later, until year of retirement 1981. Then, there is a gradual fall until year of retirement 1985, and thereafter a steady increase occurs. Such a trend of benefits (expressed in 1988 dollars) will also occur for years after 1988 if real wages rise over the years.

Some persons who favor increasing benefits for those born in 1917-21 (and even some later years, such as up through 1928) support their arguments by considering figures like those in the last column of Appendix Table 2. But they consider only those born in about 1912-16 (retirements at age 65 in 1977-81) as having "proper" benefits, and they ignore what will be the case for those born after 1930 (retirements after 1995). They then propose to "fill in the gap" for the 1917-28 births at a level of benefits that would be at about the same current level as for 1911-13 births (but still below that of $\frac{1914-16}{}$ births).

Actually, the result of such proposals would be that persons born before 1911 (i.e., in the last column of Appendix Table 2, years of retirement before 1976) would be getting smaller benefits than those born later. The question might be raised whether persons with average earnings who retired at age 65 before 1976 should get less -- as they do under present law and would continue to do under the proposals -- than persons who retired at age 65 in, say, 1976 (\$635.60) if persons who retired at age 65 in 1982-93 are to be raised to this level? It seems likely that, if this action were taken for those born in 1917 and after, then those born before 1911 would feel that they were inequitably treated and would demand benefit increases too. Later, when those born after 1928 retire at age 65 with higher levels of benefits, should there be costly changes made to increase all benefits for those born earlier?

The answer is, of course, "no" to benefit increases in both the foregoing cases, because it is the nature of the system to provide gradually increasing benefits for the same situation (as to retirement age and earnings level) as the years go by, assuming that a more or less steady growth in real wages occurs over the years.

Appendix Chart A depicts graphically the different current benefit amounts for retirees at age 65 who were born in different years. It is clear that those born in 1917-21 (or even a few years later) are not at a lower level than all other years of birth and that the benefits for all other years of birth are not all at the same level. In interpreting this chart, it should be kept in mind that it shows benefits received by persons retiring at age 65 -- when the notch is larger than for earlier retirement. Only a minority of workers currently postpone benefit application until age 65 or later.

Appendix Chart A
CURRENT MONTHLY SOCIAL SECUAITY BENEFITS
FOR PEASONS BOFN FAOM 189E-1935 WHO HAD
average eafnings histories and retimej at age 65
Benefit levels as of Jan. 4988)


Sourcs: Congressional Research Service. March 1988

## Appendix F

ILLUSTRATION OF METHOD OF BENEFIT COMPUTATION FOR PERSONS BORN BEFORE 1917 WHO WORKED AFTER 1978 WHICH WOULD HAVE ALLEVIATED THE NOTCH SITUATION IF IT HAD BEEN ENACTED IN 1977
(All page references are to item 8 in the Bibliography, Appendix C)
I. Assumptions
[a] Born in late December 1916 (age 65 in December 1981).
[b] Retires on December 31, 1981 (first benefit check for January 1982).
[c] Maximum creditable earnings in all years in 1951-81, with full-time employment throughout).
II. Benefit Computation under 1972 Act (i.e., present law)
[a] Computation years -- 22 (i.e., 1978 - 1951 - 5).
[b] Highest 22 years -- 1960-81.
[c] Total earnings in highest 22 years -- \$248,300 (from page 125).
[d] Average Monthly Earnings -- $\$ 248,300$ : $22 \times 12=\$ 940$.
[e] PIA as of January 1979 -- $\$ 564.90$ (from page 225, using [d]).
[f] PIA as of January 1982 -- $\$ 789.20$ ([e] increased by COLA's of $9.9 \%$ for 1979, $14.3 \%$ for 1980 , and $11.2 \%$ for 1981 -- 171).
[g] Benefit as of January 1982 -- $\$ 789.80$ ([f] increased by Deferred-Retirement Credit of 1 month -- .00083\%).
III. Benefit Computation Under Possible Revised Method Which Should Have Been Enacted in 1977
(A) AME Benefit Based Solely on Earnings Before 1979
[a] Computation years -- 22.
[b] Highest 22 years of actual earnings -- 1957-78.
[c] Total earnings in highest 22 years -- \$183,600 (from page 125).
[d] Average Monthly Earnings -- $\$ 183,600$ : $22 \mathrm{x} 12=\$ 695$.
[e] PIA as of January 1979 -- $\$ 481.20$ (from page 225, using [d]).
[f] PIA as of January 1982 -- $\$ 686.40$ ([e] increased by COLA'S -- see item II [f]).
[g] Benefit as of January 1982 -- $\$ 686.90$ ([f] increased by DRC of . 00083\%).
(B) AIME Benefit Based Solely on Earnings Before 1979
[a] Computation years -- 22.
[b] Highest 22 years of indexed earnings -- all years in 1951-78, except 1954, 1958, and 1962-65.
[c] Total indexed earnings in highest 22 years -\$291,246 (from page 167).
[d] AIME -- $\$ 291,246$ : $22 \mathrm{x} 12=\$ 1,103$.
[e] PIA as of January 1979 -- $\$ 454.30$ (from page 77, using [d]).
[f] PIA as of January 1982 -- $\$ 634.70$ ([e] increased by COLA'S -- see item II [f]).
[g] Benefit as of January 1982 -- $\$ 635.20$ ([f] increased by DRC of .00083\%).
(C) AIME Benefit Based on Earnings Through 1981
[a] Computation years -- 22.
[b] Highest 22 years of indexed earnings -- all years in 1951-81, except 1953-54, 1957-58, and 1961-65.
[c] Total indexed earnings in highest 22 years -\$335,817 (from page 167).
[d] AIME -- $\$ 335,817$ : $22 \times 12=\$ 1,272$.
[e] PIA as of January 1979 -- $\$ 479.70$ (from page 77, using [d]).
[f] PIA as of January 1982 -- $\$ 670.10$ ([e] increased by COLA'S -- see item II [f]).
[g] Benefit as of January 1982 -- $\$ 670.60$ ([f] increased by DRC of . $00083 \%$ ).
(D) Increase in AIME Benefit for Earnings in 1979-81
[a] Increase in AIME Benefit -- \$670.60 - \$635.20 = \$35.40 (item [C][g], minus item [B][g]).
'E) Total Benefit under Possible Revised Method
[a] Total benefit -- $\$ 686.90+\$ 35.40=\$ 722.30$ (item [A][g], plus item [D][g]).

|  | Current lav | H.R. 1917 <br> (Rep. Roybal) | H.R. 1721 (Rep. Daub); <br> S. 1917 (Sen. Heinz) | ```H.R. 3788 (Rep. ll. Ford): S. 1830(Sen. Sanford)``` | S. 225 (Sen. D'Amato) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Baslc computation... options lot persons pligble durlng trrniltion period: | Higher of: <br> a. W age-Indexed benefit [computed from nev (ormula) or | Ho change. | Ho change. | No change. | No change. |
| $\stackrel{A}{\Delta}$ | b. J_ransjtion <br> guarantee benef it <br> (computed from old-lav <br> rules with varlous <br> limitations). | Creates another set of transitional benefltcomputation rules that call be used as au al ternat ive to the existing rules. (ln effect, the individual would get the higher of the vage-indexed benef It or efther of tve transition guarantees). | Creates another set of transltional beneffe computat fon rules that can be used as au alternative to the existing rules. (ln effect, the individual would oet the higher of the wage-lindexed beneflt or elther of two transltion guarantees). | Creates another set of transitlonal benefltcomputation rules that can be used as an al ternat lve to the existing rules. effect, the indlvidual vould get the higher of the vage- Indexed benefit or eftier of tyo transltion guarantees). | ExIEtIng transition guarantee rules vould be llberallzed. |
| 2. In order to use the trenaltion guarantes culese worker must geach age 62 In: | $\begin{aligned} & \text { S-year period, } \\ & \text { 1979-63. } \end{aligned}$ | $\begin{aligned} & \text { Jo-year period, } \\ & \text { 1979-80. } \end{aligned}$ | ```S-year period, 197!-83.``` | 1 l-year per Jod. 1979-91. | 1979 and later (no ending point is def Ined). |
| 3. Who can recelve the traneltion guarantee? | Hetired vorker. dependent, and survivor, where vorker on whose record the lieneties are based was born In period from 1917-21. | Retired worker, dependent, and survivor, where worker on whose record the benefits are based was born lis period from -1917-26. | Retired worker, dependent, and survivor, where vorker on vhose record the benefits are based was born $I n$ period from 1917-21. | Hetired vorker, dependent, and survivor, where vorker on vhose record the benefits are bared was born in perlod from 1917-29. | Retired worker, dependent, and survivor, where worker on vhose record the benefits • rw based vas born after 1916 and had earned 21 quarters 0 f coverage prior to 1979. |

Current law

## H.R. 1917 <br> (Rep. Roybal)

H.R. 1721 (Rep. Daub):
S. 1917 (Sen. Hejnz)

日.R. 3788
(Rep. H. Ford
S. 1630 (Sen. Sanford)

## 4. Major lements of the trangltion

 quarantee computation:a. Treatment of post-age 61 arnIngsr

Post-age 61 earnings cannot be used to determine average earnings.

Prc-age 62 CoLAs after 1979 are not counted
Under the neuly-
created second set of
transition rules, all
earnings could be earnings could be count - d

Under the neuly
created second set of transition rules,
three years' uorth of post-age 61 earnings could be counted

Under the neuly- Under the neuly-
created second set of transition rules, all
pre-age 62 COI.As
could be counted.

Same as current lau.
reated second set of
rallsition rules, all
pre-age 62 COIAs
could be counted.

Under the neulycreated secönd set of transltion rules, four years' worth of postage 61 earnings could be counted (but only up to $\mathbf{\$ 2 9 , 7 0 0 / y r}$.
after 1981 and only up though the year the person reached aga 65 ).

Under the neulycreated second set of ransition rules, all pre-age 62 COt.As
could be counted

Same as current lau.

Post-age 61 earnings could be counted under the liberallzed transition rules (but only up to three addjtional years" worth after 1811, and only up to \$29,700/yr. for yeare after 1981).

All pre-age 62 COLA: could be counted under liberalized trrnrition rules.

## Averaging period

 could not exceed 25 years.d. Dthrr factors affecting the slze of cransltion guarantee benefits:

## None,

Benefits computed under the newlyreated second set of transition rules would be reduced by 6 for workers born in 1917 and by progressively arger amounts for workers born in later years (the reduction factor increases by 31 a year until lt
reaches 33 for workers born in 1926)

A percentage of the difference between the newly-created
transit ion benefit and the amount computed under wage-indexing rules would be added o the wage- indexed benefit. (The percentage declines wi theach neu cohort in the 1917-21 birth gromps). If this new two-tiered benefit is higher than under current law, It becomes the new guarantee.

| Benefits computed | None. |
| :---: | :---: |
| under the newly- |  |
| created second set of |  |
| transition rules would |  |
| be reduced by 71 for |  |
| workers born in 1017 |  |
| and by progressively |  |
| larger amounts for |  |
| workers born in later |  |
| years (the reduction |  |
| factor increases by 21 |  |
| a year until it |  |
| reaches 311). The |  |
| reduction factor |  |
| increases further by |  |
| 11 a year 11.128a |  |
| month) when |  |
| retirement is delayed |  |
| beyond age 62 (up to |  |
| another 31). The |  |
| maximum reduction is |  |
| thus 341 (311 plus 38 |  |
| tor workers born in |  |
| 1929). |  |


| No recomputation Of | No benefit could |
| :---: | :---: |
| benefits would be | reduced - o - result of |
| permitted for earnings | a recomputation caused |
| In years after a | by revision of the |
| person reaches age 70. | transition sules for |
| If the person became | any month prior to |
| - Ilglble prior to | J anuary 1985. |
| 1979. The liaitation |  |
| could not result In |  |
| eduction of x xirting |  |
| benefits. |  |

H.R. 1917
(Rep. Roybal)

## If higher beneflts

 result from using new transition rules,retroactive payments would be made back to point of initial entitlement (to 1979 in some cases).

None.

$\stackrel{\sim}{\beth}$
7. Effectlve date of changes :
H.R. 1721 (Rep. Daub), H.R. 3788
S. 1917 (Sen. Heinz) (Rep. H. Ford):
S. 1830 (Son. Sanford)
6. Hetronct lue
parents under the
आगs:

Upon enactment, with retroactivity back to polnt of initial entitlement
H.R. 1917
(Rep. Roybal)
H.R. 1721 (Rep. Daub);
S. 1917 (Sen. Heinz)
H.R. 378 (Rep. H

Ford) ;
S. 1830 (Sen. Sanford)
8. Cost of bills:

- . Short range:

Calendar year:

| 1988........... . | 521.1 bllllon | 52.2 billion | s14.0 bllllon | 554.9 | blllion |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1989........... | 6.5 | 2.6 | 5.3 | 18.0 |  |
| 1990........... | 7.3 | 2.1 | 5.9 | 22.2 |  |
| 1991........... | 7.9 | 2.8 | 6.4 | 25.7 |  |
| 1992........... | 8.3 | 2.8 | 6.8 | 29.2 |  |
| 1993........... | a. 5 | 2.8 | 7.1 | 32.1 |  |
| 1994.. | 8.7 | 2.8 | 7.3 | 36.3 |  |
| 1995.. | 6.9 | 2.8 | 1.4 | 39.1 |  |
| 1996............ | 9.0 | 2.8 | 1.4 | 43.3 |  |
| al 1980-96.... | 586.9 | 524.3 | 567.5 | S302.8 |  |

$\underset{\infty}{\infty}$
b. Long ranger

Cost - rpterred as
percent of
taxable payroll:
0.081
(Equivalent to $\mathbf{S 1 . 6}$
blllion per year for
the next 75 years,
when measured agalnst
the level of taxable
payroll In 1988 ).
0.021
(Equivalent to So. 6 bllllon per year for the next 75 years, when measured against the level of taxable payroll In 1988).
0.071
0.358
 payroll In 1988).


[^0]:    3/ The Primary Insurance Amount is the basic benefit for which a single retired worker (or a married worker, exclusive of any additional benefits for spouse or children) is eligible to receive as old-age insurance benefits at the Normal Retirement Age (currently, age 65).

    4/ If the relationship between wage and price changes does not remain fixed over the years, small notches can occur from time to time. For example, assume that wages have been increasing for many years at a $6 \%$ rate and prices at a $4.5 \%$ rate, but then in year "t", prices increase $9 \%$, and wages increase $6 \%$, while in year "t+l", prices remain unchanged, and wages again rise 6\% (and, in all future years, the $6 \% / 4.5 \%$ relationship applies).

