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AVERAGE WAGES FOR INDEXING UNDER THE SOCIAL SECURITY ACT
AND THE AUTOMATIC DETERMINATIONS FOR 1979-81

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INTRODUCTION

The Social Security Act has provided for indexing certain amounts under the old-age, survivors, and disability insurance (OASDI) program according to changes in average wage levels beginning, on a limited basis, with the Social Security Amendments of 1965. Legislation enacted in 1972 broadened the use of such indexing procedures to include automatic increases in the contribution and benefit base, in conjunction with the automatic cost-of-living increases in benefits that were provided in the 1972 Amendments. The 1977 Amendments further extended the use of indexing by providing for an indexed benefit structure.

Under the OASDI program as amended in 1977, all persons newly eligible for benefits after 1978 have their benefits computed under a procedure which calls for indexing each year of their earnings taxable under social security to reflect the changes in levels of average wages in the economy from that year to a point two years before their current eligibility. Increases in average wages are also used to index the "bend points" in the formulas for computing primary insurance amounts (PIA's) and maximum family benefit amounts, as well as several other program amounts such as the contribution and benefit base, the retirement test exempt amount, and the amount of earnings required for a quarter of coverage.

The law provides for annual publication in the Federal Register of all newly determined amounts under these indexing procedures. (See list of relevant Federal Register publications at end of text.) However, because of the wide-ranging use of the amounts determined under wage indexing, it has been suggested that more detailed information on the average wage series and the related automatic determinations should be documented for permanent reference and made available to the interested public. The purpose of this Actuarial Note is to provide such information. It is planned that a similar Actuarial Note will be an annual publication appearing soon after the official announcement of the determinations in the Federal Register.

In this initial paper, the retrospective determination of the wage indexing series for 1951-77 is documented, as well as the calculations of the 1978 and 1979 average wage figures used to extend the 1951-77 series (Table 1). In addition, the details of the automatic determinations of program amounts for 1979-81 which depend on these average wage figures are presented (Table 2).

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CONSTRUCTION OF THE 1951-77 AVERAGE WAGE SERIES

The amended Act requires the use of an average wage for indexing described in various sections of the law as "the average of the total wages (as defined in regulations of the Secretary. . .)." Such general language leaves a wide range of possibilities for a definition of such a wage series. In order to provide cost estimates to the Congress for its deliberations on the decoupling provisions in the 1977 Amendments, the Office of the Actuary developed a tentative set of average wages for 1951-77 which we refer to in the following text as the preliminary series. However, following the enactment of those amendments, further consideration was given to the development of the best possible series of wages for indexing that was consistent with the general intent of the law. These deliberations resulted in the series of average wages for the period 1951-77 that was published in the Federal Register on December 29, 1978. In the following sections, we examine the data sources and the construction of the preliminary series and its successor series which is the final set of average wage figures currently used by the Social Security Administration (SSA) for indexing earnings histories.

1. Historical precedents for wage indexing and average wage

The precise intent of the general language "average of the total wages" can best be illuminated by studying both the historical precedents for the use of wage-indexing procedures under the Social Security Act as well as the legislative intent of Congress as expressed in the congressional committee reports accompanying the legislation that eventually became the 1977 Amendments.

As mentioned in the introduction, the idea of using an indexing procedure based on some measure of increases in average earnings in order to update certain program amounts was introduced into the Act in 1965. The 1965 Amendments contained a provision for offsetting benefits paid to disabled workers and their families if benefits plus workmen's compensation payments exceeded 80 percent of a certain measure of average current earnings. This measure of average current earnings was to be updated periodically according to increases in wage levels in the economy. At that time it was decided to measure the increase in wage levels from internal social security data that provided an average wage per wage item for wages reported to SSA for the first quarter of each year. (A wage item represents a report from one employer for one employee, so that a single employee may be represented by more than one wage item.) For all years before 1978, wages above the earnings base amount were not reported to SSA. Therefore, the average annual amount of reported taxable wages was lower than the average total wages, and the year-to-year increases in the annual average wage were distorted by the dampening effect of the earnings base. However, since very few workers earn more than the annual maximum taxable amount in the first quarter, the average first-quarter wage is not significantly affected by the earnings base.

The use of first-quarter wage data was continued in the 1972 Amendments which instituted the indexing of the contribution and benefit base and the retirement test exempt amount. At that time, the law prescribed that the indexing be

based on an average wage per employee where the wage data were to be obtained from the processing of employer's wage reports following the posting of earnings for the first quarter of a given year to the Summary Earnings Record (SER). In order to provide a consistent measure from year to year and, at the same time, provide the data soon enough to meet the publication requirements of the law, it was decided to use the data extracted from the SER following the September posting cycle of the same year for which the first-quarter data were being extracted. The use of the data obtained in this manner was specified in a general way in the law, and in a very explicit way in regulations promulgated by the Secretary.

In the case of the 1972 Amendments, as well as in the earlier implementation of the workmen's compensation offset provisions, a deliberate decision was made to include only wages in the indexing measure. Self-employment income (SEI) was excluded from the measure for a variety of reasons. The most important reason at that time was that data on SEI are available only on an annual basis from Schedules SE that are attached to income tax returns. Thus, the SEI data could not be combined with the first-quarter wage data.

All of these factors were considered during the congressional committee deliberations that preceded the enactment of the 1977 Amendments. It was the intent of the congressional committees that the wage indexing series to be used in the new decoupled benefit formula be consistent with such indexing procedures already in the law. The average wage figures for the first quarter of each year 1973-77 had been published in the announcements of the automatic determinations of the contribution and benefit base and retirement test exempt amounts for each year 1975-79. Therefore, they had been subjected to public scrutiny and were apparently acceptable to the public and to Congress. The use of the first-quarter average wage figures was also suggested by the "Report of the Actuarial and Economic Consultants to the 1975 Advisory Council Subcommittee on Financing." For the purpose of using average wages to index earnings under their decoupling proposal, these consultants said ". . . average wages for a calendar year are determined by the same method as is currently used for adjustment of the taxable earnings base and the exempt amounts under the retirement test." (page 129, Appendix A of the 1975 Advisory Council Report). Thus, in constructing the indexing series for years 1951-77, the first-quarter wage data for years 1973-77 that already had the sanction of law and regulations were used as the basis of the new series. Unfortunately, data on amounts of wages and numbers of employees comparable to the 1973-77 data, on a 100-percent basis, are not available for other years; nor could such data be obtained now, since the data must be obtained through posting operations. Therefore, various other sources of data were investigated with the aim of constructing a series of average wages for years 1951-72 to complement the 1973-77 series.

2. The preliminary series of average wages

The pre-1973 segment of the preliminary average wage series (Table 3) was constructed from tabulated data on 100 percent of the wages and wage items reported to SSA for the first quarter of each year 1951-72. The data on amounts of wages and numbers of wage items were tabulated from first-quarter

employer report cards processed as of September of the same year for which the tabulation was being made. The information on the total amounts of wages reported for the first quarter obtained during this employer report card operation is essentially consistent with the data on amounts of wages used for each year 1973-77 which were obtained during the operation of posting the earnings to individual earnings records. However, because of possible employment of one employee by more than one employer, the employer report card operation did not provide sufficient information for compiling a tabulation of the numbers of employees corresponding to these amounts of wages. Therefore, from this source of information it is only possible to compute a series of averages per wage item rather than averages per wage earner. Nevertheless, the 100-percent nature of the data, and the essential comparability of the wage totals from this data with the wage totals in the post-1972 data suggested the use of this wage-item data in constructing a series of averages for years prior to 1973. This series was constructed by calculating an average per wage item from the employer report card data for each year 1951-73, measuring the annual percentage increases in average wages from the series of averages per wage item, and then using these annual percentage increases to extend the 1973-77 series of average wages per employee backward in time to 1951. This procedure assumes that the ratio of the number of wage items to the number of employees, in the first quarter of each year, remained constant throughout the period 1951-72 at a level equal to the level observed in the first quarter of 1973.

In addition to the linking procedure used to correct the conceptual difference between wage items and employees, further adjustments to the wage-item data were made to take into account changes in patterns of coverage and irregularities in reporting and posting practices. One of the major modifications to the wage-item data was the total exclusion of all military wages and counts of wage items. This exclusion was required to eliminate the inconsistent effect of the military wages on the increases in average wages that resulted from the irregularities in the timeliness of reporting from the various uniformed services.

A second modification to the data was made for changes in coverage. During the period 1951-58, the number of State and local government employees covered under social security increased rapidly. The increases in average taxable wages were affected by this rapid growth in State and local coverage. Furthermore, prior to 1957, the data on State and local wages were not processed and tabulated in as timely a manner as they were after 1956. Therefore, wages and wage items reported for State and local government employees were not included in the data for years prior to 1958 in the derivation of the preliminary set of average wages.

Finally, the wage-item data for 1951 contained information on the number of wage items for the first quarter of that year, but not a tabulation of the corresponding amount of wages. Therefore, to complete this average wage series, it was necessary to estimate the amount of wages based on the total amount of wages for the first quarter of 1951 that was certified by SSA to the Department of the Treasury.

Thus, although the wage-item data for years prior to 1973 are on a 100-percent basis and the wage counts from these data were somewhat comparable to the post-1972 data already in use, a number of modifications and simplifying assumptions were required to produce a series of average wages conceptually consistent both internally and with the 1973-77 series. This created uncertainty regarding the extent to which the preliminary series properly reflected percentage increases in average wages. In particular, the assumption of a constant ratio of wage items to wage earners throughout a period of varying economic conditions seemed questionable. Furthermore, the exclusion of the effects of military wages on the increases in average wages for the period 1957-72 made these data inconsistent with the data in use for the period 1973-77 which do include military wages, and the data from W-2 Forms which will be in use for future years and which will also include data on military wages. Consequently, an attempt was made to construct a series for the period 1951-72 from data which would permit the direct computation of an average wage per employee, and which would properly allow the inclusion of effects of military wages on the increases in average wages.

3. Limitations on other historical sources of data available from SSA

Although no suitable sources of data on wages and employees tabulated on a 100-percent basis are available for years prior to 1973, other sources of data on wages and employees are available from SSA tabulations of statistical samples of workers covered under social security. The largest such sample collected in a consistent manner almost since the inception of the social security program is the 1-percent sample of all social security numbers. Such 1-percent sample data have been collected annually since 1940 and provide the source data for several basic record files which make up the Continuous Work History Sample (CWHS). Two of these data files which contain detailed information on wages and wage earners under the social security program are the 1-percent 1937-to-date CWHS file and the 1-percent 1957-to-date Longitudinal Employee-Employer Data (LEED) file. The CWHS file is compiled from data in the SER after the posting of earnings to individual records with a cutoff date of September of the year following the latest year represented in the file. This file contains information from the 1-percent sample population on amounts of wages and numbers of wage earners for each year in the desired period 1951-72; however, it does not contain a quarterly breakdown of those wages. Therefore, the information in this file is not suitable for comparison with the established set of first-quarter data to be used in 1973-77.

The LEED file is assembled from the 1-percent sample of annual employee-employer records which are prepared yearly during the operation of posting earnings to the SER with a cutoff date of the September following the year for which the annual records are being compiled. It is estimated that this cutoff date provides for the inclusion of over 99 percent of the wage items reported for the first quarter for workers in the 1-percent sample. In the annual files, one record is created for each employee-employer combination during the year. In the longitudinal file, the original records from the various annual files have been resequenced and merged so that all records associated with an employee over the time span of the file appear together. The detailed nature of the information compiled in the LEED file provides not only data on

quarterly amounts of wages and numbers of wage earners in the sample population, but also data on numbers of employer-employee combinations exhibited by the sample population and a breakdown of wage data by type of employer. The consistent September cutoff date provides a year-to-year comparability throughout the entire time span of the file and makes it possible to use the data for measurement of variation of average wages through time. Also, this cutoff date is one year later than that used in the 100-percent wage-item data and therefore includes more complete information on certain segments of the population (e.g., the military) which were inconsistently represented in the 100-percent wage-item data. However, although the LEED file is an exceptionally rich source of data, it has been compiled only since 1957 and therefore provides no information for the period 1951-56.

A final source of detailed data on wages and wage earners is the smaller 0.1-percent sample, a subset of the 1-percent sample of social security numbers. The 0.1-percent sample provides information on quarterly wages since 1937. It has been the basis for quarterly estimates of average taxable wages per employee which are produced regularly by the Office of Research and Statistics (ORS) for publication in the Social Security Bulletin. The originally published estimates are based on raw data from the 0.1-percent sample adjusted to the level established by the 1-percent sample. Furthermore, the estimates for a given year are revised over a period of time following the original publication to reflect more complete information derived from the 1-percent sample which is collected at a later point in time. More detailed information regarding these sample sources of data may be found in the papers: "The Continuous Work History Sample (CWHHS): Description and Content," by Warren Buckler and Creston Smith, ORS-SSA, and "Sampling Variability in the 1-percent Continuous Work History Sample," by Robert H. Finch, Jr., ORS-SSA.

4. The construction of the final average wage series for 1951-77

In making a final decision on a series of average wages to be used for indexing under the 1977 Amendments, three main considerations played important roles. First, the average wage figures should be based on the most complete and accurate source of data available for the given time period subject to the restrictions imposed by the second and third considerations. Second, the series of averages should represent averages per employee as envisioned by legislative history of the 1977 Amendments and legislative precedent provided by the Act and its associated regulations as in effect prior to the 1977 Amendments. Third, since the purpose of developing this historical series is for use in indexing of earnings according to increases in average wages, the major concern is that the final series represents a consistent and accurate measure through time of the annual percentage increases in average wages per employee.

These three considerations suggested the following choices of data sources for construction of the final series of average wages. For 1973 through 1977, increases in average wages should be measured by the averages per employee calculated from the 100-percent first-quarter tabulations as provided by the law in effect prior to the 1977 Amendments. For 1957 through 1973, increases in average wages should be measured by the averages per employee calculated from first-quarter taxable wages recorded in the 1-percent sample LEED file.

Finally, for 1951 through 1957, the increases in average wages should be measured by the published estimates of first-quarter taxable wages based on the 0.1-percent sample.

Furthermore, for purposes of indexing in benefit computations, the only requirement of a series of average wages is the measurement of year-to-year percentage increases in average wages, rather than the measurement of absolute dollar levels of averages in given years. Therefore, it is possible, using the year-to-year percentage increases, to link these three somewhat disparate sources into a series of averages that provides a consistent and accurate measure of increases in average wages throughout the entire time period 1951-77. This linking to produce the final series presented in Table 1 was accomplished as follows. First, the first-quarter averages per employee for each year 1973-77 were retained as they had originally been computed. Next, an average wage per employee was calculated for the first quarter of each year 1957-73 from the data tabulated from the 1-percent sample LEED file, and the annual percentage increases measured by these averages were used to extend the 1973-77 series backward in time to establish a set of average wages for the entire period 1957-77.

Finally, the revised estimates based on the 0.1-percent sample of average taxable wages per employee for the first quarter of each year 1951-57 were compiled from various issues of the Social Security Bulletin and the annual percentage increases measured by these averages were used to extend the 1957-77 series backward in time to establish a set of average wages for the entire period 1951-77. The basic averages used for constructing the final series are presented in Table 4, along with the adjusted first-quarter series. The series of first-quarter averages produced in this way was then multiplied by four to produce the final series to be used for indexing the 1977 average wage levels.

5. The final series--indications of reliability

To test the relative accuracy of the final indexing series in measuring the pattern of changes in average wages since 1951, another series of average wages was derived from estimates of amounts of wages and numbers of wage earners for all industries combined as prepared by the Department of Commerce. These estimates, prepared regularly for publication in the "Survey of Current Business," are based largely on data on the population covered by unemployment insurance, compiled by the Bureau of Labor Statistics (BLS). The amounts for 1951-72 were derived from estimates appearing in "The National Income and Product Accounts of the United States 1929-74 - Statistical Tables - A Supplement to the Survey of Current Business." The amounts for 1973-77 were derived from estimates appearing in the July 1977 and July 1978 issues of "Survey of Current Business." The Department of Commerce total wage series includes some industries not in the SSA wage universe, e.g., railroad and most Federal civilian workers, and excludes overseas possessions, such as Puerto Rico, which are included in SSA's wage data. Furthermore, the employment series is defined as an annual average of employment, rather than the SSA definition of employment at any time during the year. For purposes of comparison, Table 5 shows the annual percentage increases in the final indexing series, the preliminary series and the series derived from the Department of Commerce estimates.

The final series is closer in its pattern of annual increases to the Department of Commerce series than to the preliminary series based on wage-item data. This can largely be explained by the fact that the final series and the Department of Commerce series are both true per-employee series, whereas the preliminary series is an artificial series based on the assumption of a constant ratio through time of wage items to wage earners. Data from the 1-percent sample LEED file, collected since the construction of the preliminary series, tend to confirm that this assumption is not an accurate one when attempting to measure increases in average wages per employee. Table 6 presents data from the 1-percent sample, for each year 1957-73, on the numbers of employees and their corresponding numbers of employer-employee combinations. The number of employer-employee combinations here corresponds to the number of wage items that would have been recorded for these employees. Therefore, the ratio of number of employer-employee combinations to number of employees is a measure of the number of wage items per employee. The sample data indicate that this ratio in reality varies significantly through time both above and below the 1973 level, but was assumed constant in the construction of the preliminary series. The consequences of this discrepancy can be observed, for example, in the percentage increase in first-quarter average wages from 1957 to 1958. As expected during an economic slowdown, this increase was small. But at the same time, the number of wage items per employee was shrinking. Adjusting the wage-item data to reflect this shrinkage produced a much more accurate final wage series than if the constant ratio assumption discussed earlier had been used.

Some discrepancies can be observed between the increases resulting from the final series and the increases from the series compiled from the Department of Commerce estimates. For example, in the final series there is a relatively low percentage increase in average wages from 1964 to 1965 and an unusually large increase from 1971 to 1972. These effects, though not present in the Department of Commerce series, can reasonably be explained as variations present in first-quarter data which are smoothed out in annual averages. This can be substantiated by looking at unemployment insurance data for the first quarter, compiled by BLS, which are part of the annual data on which the Department of Commerce estimates are largely based (Table 7). For example, the percentage increase in average wages measured by the final series from first quarter 1971 to first quarter 1972 is large compared to increases for years just before and after this period. This same large change from 1971 to 1972 appears in the first-quarter BLS data, although it is not reflected by the Department of Commerce estimates. Other differences, for example the recent faster growth in average wages in the Department of Commerce series, may be explained in part by the differences in the covered population being represented by the two series.

An overall measure of the difference or similarities of various average wage series can be obtained by observing the effects in using these wage series to compute the Average Indexed Monthly Earnings (AIME) for workers with a selected earnings history. Table 8 shows projected AIME's for maximum wage earners retiring at age 62 in each year 1979-90. In these projections, each of the three series was extended after 1977 by the same series of assumed increases in average wages. The indexing series based on Department of Commerce data

produces the highest AIME's, while the preliminary wage-item series produces the lowest AIME's. The final average wage series produces AIME's intermediate to those of the other two sets. However, because of the smoothing effect of the averaging process used in calculating the AIME, the results using the preliminary series and the series based on Department of Commerce estimates vary at most 2 percent on either side of the results using the final series. Calculations of AIME's for workers with average and low earnings records show similar patterns of difference.

The higher AIME's resulting from the use of the final average wage series, instead of the older preliminary series, could have been anticipated by observing the pattern of higher indexing factors produced by the proposed series (Table 5). While this difference in indexing factors is partly attributable to the difference in the basic nature of the two series (per-employee averages as opposed to per-wage-item averages), specific causes for the level of differences can be identified by recalling some details of the construction of the preliminary series. For example, in that construction, military wage-item data were excluded from the computation of averages for years prior to 1973 to eliminate the effects of erratic reporting practices of the uniformed services in those years. In computing the averages for the final series, the wage records of military employees in the 1-percent sample were properly included in the computation as was done in the calculation of averages based on the 100-percent data for years after 1972. Examination of detailed information on military wages and employees from the 1-percent sample shows that excluding military employees from the computation of averages would have lowered somewhat the indexing factors in the final series, but would not have lowered them to the level of the preliminary series indexing factors.

AVERAGE WAGES FOR 1978 AND 1979

1. Sources of data for years after 1977

Beginning with 1978, quarterly reports of wages for individual employees are no longer available. Instead, SSA is receiving annual reports of all wages, including wages in noncovered employment and covered wages in excess of the maximum annual amount taxable. These data are obtained by SSA in its processing of employer copies of W-2 Forms which are now submitted directly to SSA. Thus, in determining the average wage figures for years after 1977, it was not (and will not be) possible to rely on the same source of data that had been used for indexing under the law for years before 1978. Nevertheless, as was mentioned previously, it was assumed in the deliberations of the congressional committees preceding the enactment of the 1977 Amendments that the basic principles underlying the construction of the historical indexing series were to be preserved in the development of the indexing figures for years after 1977. In particular, this implied that wage data, rather than wages plus SEI, were to be used as a basis for calculating the indexing figure. This was true even though the wage data available for use after 1977 are tabulated on an annual basis because there continued to be compelling reasons for not including SEI data along with wage data in the determination of the indexing figure.

The first reason concerns the timing of the processing of SEI data. While wage data for a given year now become available from Forms 1040 by September of the following year, on a fairly complete basis, SEI data are still not very complete by that time. Second, even if the self-employment reports were processed in a timely enough fashion, the desire to obtain a consistent year-to-year measure would be thwarted by the evident unreliability of the self-employment reports. Recent data published in the "Survey of Current Business" (July 1979 issue, p. 69, Table 8.6) show that the reported totals of self-employment income are substantially modified by "posttabulation amendments and revisions including allowance for audit." These revisions have represented as much as 20 to 22 percent of the total reported SEI in two recent years. This variation in the reliability of the reported data makes the inclusion of such data impracticable as part of a measure that must be consistent from year to year.

The committees were also especially aware of the problems that were to arise in making the transition from first-quarter wage data to annual wage data that was necessitated by the implementation of annual reporting. For this reason, the provisions of the law were written to allow the Secretary flexibility in making this transition. The committees understood that, ultimately, the basis for calculating the indexing average wage was to be the data tabulated by SSA in the processing of all W-2 Forms submitted to SSA by employers. However, in the transition to this data source, the committees recognized that comparable data for 1977 could not be obtained from all W-2 Forms. Therefore, the committees provided for the use of data from Forms 1040 tabulated by the Internal Revenue Service (IRS) for both years 1977 and 1978, so that the increase in average wages from 1977 to 1978 would be based on comparable data for both years. Explicit reference to the use of Form 1040 data is made in the report of the Senate Finance Committee on H.R. 5322. These considerations provided the basis for the methodology underlying the calculation of the 1978 indexing figure.

The congressional committees anticipated that beginning with the 1979 wage indexing figure, the calculation of such indexing figures would be based on data tabulated in the processing of all W-2 Forms. However, it became clear, soon after the initiation of SSA's annual reporting procedures, that this massive job of data processing would not be able to provide the requisite data for making the 1979 average wage determination in time to meet the operational and legal deadlines imposed on this calculation. Therefore, it was necessary to continue the use of the Form 1040 data obtained from IRS for the determination of the 1979 average wage. These IRS data and their use in the calculations of the 1978 and 1979 indexing figures are summarized in the following section. It is currently anticipated that such use of the IRS data will continue for the next few years.

2. IRS wage data for 1977-79

Following the enactment of the annual reporting legislation, SSA executed a contract for reimbursable services with IRS under which IRS would provide the underlying data to be used for indexing according to increases in average wages. As mentioned above, the original negotiations with IRS envisioned the use of IRS data for tax years 1977 and 1978 only. However, the contract was

extended to include data for tax year 1979 as well. Prior to the existence of these requests for data by SSA, IRS collected data annually on total wages reported in tax returns, but did not regularly obtain comparable information on the number of wage earners who earned those wages. This was true, in part, because such data are not readily available on the tax returns themselves, since a given joint return does not contain an explicit entry which indicates whether the wages reported in the return were earned by one or both of the persons listed in the return. Such information could only be deduced by examining the W-2 Forms attached to the given joint return, and that tedious procedure was not included in the normal processing of returns before 1977.

Beginning with the returns for tax year 1977, the SSA contract with IRS provided for the collection of data on numbers of wage earners by including an examination of the W-2 Forms attached to returns as part of the normal processing of joint returns. A summary of the data supplied to SSA by IRS for tax years 1977-79 is contained in Table 9. The tabulation of total wages shown was made directly from the wages reported on the Forms 1040. The number of "wage earners" earning those wages was derived as follows:

1. For "non-joint" returns it was assumed that all wages reported on the return were earned by one wage earner.
2. For "joint" returns there were two possibilities:
 - a. There were no W-2 Forms or W-2 Forms for only one wage earner attached to the Form 1040. In this case, it was assumed that all the wages reported on the return were earned by one wage earner.
 - b. There were W-2 Forms for more than one wage earner attached to the Form 1040. In this case, it was assumed that the wages reported on the return were earned by two wage earners.

The data for 1977 were based on 1977 tax returns processed during the period January 1, 1978 through December 31, 1978. The corresponding processing periods for the 1978 and 1979 data were January 1, 1979 through September 15, 1979 and January 1, 1980 through August 11, 1980, respectively. The cutoff dates in each case were dictated by the need to have the required average wage determinations for a given year made by early October of the preceding year. This is necessary because benefits must be computed for those persons reaching age 62 in January of the given year who may begin filing claims the preceding October. In each year 1977-79, IRS estimates that the tabulations reported to SSA represent over 97 percent of the individual returns that would be processed for comparability of the data from year to year. The average wages per wage earner calculated directly from the IRS data are \$10,043.15, \$10,840.68, and \$11,789.01 for 1977, 1978, and 1979 respectively.

3. Average wages for indexing 1977-79

In order to construct average wage figures for 1978 and 1979 for use in indexing that were consistent with the published series for 1951-77, the annual percentage increases measured by the IRS averages were used to increase the

published SSA average wage for 1977 of \$9,779.44. Thus, the 1978 indexing average wage was determined by multiplying the published average wage for 1977 by the ratio of the average annual wage for 1978, from IRS data, to the average annual wage for 1977, from IRS data, and rounding the result to the nearest cent. The calculation is as follows:

$$\text{Average wage for 1978} = \$9,779.44 \times (\$10,840.68/\$10,043.15) = \$10,556.03$$

The 1978 average wage figure of \$10,556.03 was announced in the Federal Register on November 1, 1979.

Similarly, the 1979 indexing average wage was determined by multiplying the published average wage for 1978 by the ratio of the average annual wage for 1979, from IRS data, to the average annual wage for 1978, from IRS data, and rounding the result to the nearest cent. The calculation is as follows:

$$\text{Average wage for 1979} = \$10,556.03 \times (\$11,789.01/\$10,840.68) = \$11,479.46$$

The 1979 average wage figure of \$11,479.46 was announced in the Federal Register on November 18, 1980.

DETERMINATION OF WAGE-INDEXED PROGRAM AMOUNTS FOR 1979-81

As mentioned in the introduction to this paper, the series of average wages serves a second purpose under the Social Security Act. In addition to its use in indexing earnings for purposes of benefit calculations, the average wages are used in the annual automatic determinations of various program parameters. Under Sections 203, 213, 215, and 230 of the Act, the Secretary of Health and Human Services is required to determine annually the following amounts:

1. The retirement test monthly exempt amounts which are to be effective with respect to taxable years ending in the given calendar year;
2. The amount of earnings a person must have to be credited with quarters of coverage in the given calendar year;
3. The dollar amounts (or bend points) in the formulas used to compute the PIA and the maximum family benefit amount for any individual first eligible for OASDI benefits in the given calendar year;
4. The amount of the contribution and benefit base which is to be effective with respect to remuneration paid, and taxable years beginning, in the given calendar year;
5. The contribution and benefit base that would have been effective for the given calendar year under Section 230 of the Act as in effect prior to the enactment of the 1977 Amendments, i.e., the "old law" wage base.

With the exception of the increases specified in the law, which will be noted below, the sections of the law cited above provide for automatic adjustments in

each of these amounts. Each automatic adjustment becomes effective in the year following the year in which determinations of the automatic adjustments are made. In determining each of the amounts that are subject to automatic adjustment, the law specifies a formula which automatically produces a mathematical result based on reported statistics. In each case, the formula is designed to keep each of the amounts up to date as average wage levels change.

In general, these formulas require that the given amounts vary according to changes in average wages that are measured from some specified base years through the year which falls two years before the year for which the automatically determined amounts will become effective. Thus, for example, each of the recently determined amounts effective for calendar year 1981 depends on certain increases in average wages measured through 1979. This two-year lag is merely the resolution of the technical problem of the delay in the collection of the annual wage data. The determination of the average wage figure for a given year and the corresponding automatic adjustments of program amounts thus normally take place in October of the year following the year for which the average wage is being determined (which is the year that precedes the effective year for the determined program amounts). The average wage amount and the corresponding items listed in 1-4, above, are published in the Federal Register (usually by November 1 preceding the effective year for the determined amounts) as required by law. There is no legal requirement to publish an announcement of the determination of the "old law" base (item 5 above), which has a more limited use under the Act. Nevertheless, an official announcement is usually made in the Federal Register at some later date.

In the following sections we describe each of the automatically adjusted program amounts and give the details of the automatic adjustments that have taken place since the 1977 Amendments. Before describing the various indexing procedures, it should be noted that there are two slightly different concepts being used. In one case (the contribution and benefit bases and the retirement test exempt amounts), the indexing is a stepwise year-to-year procedure with the newly adjusted amounts for a given year being determined from wage increases applied to the amount in effect for the preceding year. In the other case (the quarter-of-coverage amount and the formula bend points), the indexing is accomplished by applying the appropriate wage increases to fixed base year amounts. For the quarter-of-coverage amount, the base year is 1978; while for the formula bend points, the base year is 1979. Of course, because of the multiplicative nature of the indexing procedures, the differences resulting from the application of these two methods are due entirely to the cumulative effects of the rounding methods specified in the law.

1. The retirement test exempt amounts

Under the social security program, the retirement test annual exempt amount is the maximum amount that a social security beneficiary, who is subject to the retirement test, may earn in a year and still receive all of his or her benefits for the year. The corresponding monthly exempt amount is equal to one-twelfth of the annual amount and is used in the operation of the monthly retirement test. Under the monthly test, regardless of the amount of an individual's annual earnings, that individual (and any other person entitled to

benefits based on such individual's earnings) may receive the entire benefit for any month that is both (1) a month for which the individual is entitled to benefits and (2) a month in which the individual does not have earnings in excess of the monthly exempt amount. Under a provision in the 1977 Amendments, the monthly retirement test generally applies only in the first year in which such a month occurs, although recent revisions to the law contained in Public Law 96-473 provide for certain exceptions to this rule.

The 1977 Amendments also provided a higher retirement test exempt amount for beneficiaries aged 65 and over than for beneficiaries under age 65. For beneficiaries aged 65 and over, the annual retirement test exempt amount specified in the law is \$4,500 for 1979, \$5,000 for 1980, \$5,500 for 1981, and \$6,000 for 1982. After 1982 it is subject to the automatic increase provision in Section 203(f)(8) of the Act. This section also provides for automatic increases in the retirement test exempt amount for beneficiaries under age 65, and is applicable in determining the exempt amounts for such beneficiaries effective for each year 1979-81. The section further provides that automatic increases in the exempt amounts become effective in a year only if an automatic cost-of-living increase in social security benefits became effective in the preceding year. Under Section 215(1), automatic cost-of-living benefit increases of 6.5, 9.9, and 14.3 percent became effective for June 1978, 1979, and 1980, respectively. Thus, for each of the years 1979-81, the retirement test monthly exempt amount for persons under age 65 was determined according to the automatic increase provisions. That is, the determined retirement test monthly exempt amount for the given year was obtained by multiplying the corresponding amount for the preceding year by the ratio of the average wage for two years before the given year to the average wage for three years before the given year, with the resulting product being rounded to the nearest multiple of \$10. The corresponding annual exempt amounts were determined in each case as 12 times the monthly amount.

Since the retirement test monthly exempt amount for persons under age 65 for 1978 was \$270, the three determinations made since the 1977 Amendments have been calculated as follows:

1979: $\$270 \times (\$9,779.44/\$9,226.48) = \286.18
or \$290 to the nearest multiple of \$10

1980: $\$290 \times (\$10,556.03/\$9,779.44) = \313.03
or \$310 to the nearest multiple of \$10

1981: $\$310 \times (\$11,479.46/\$10,556.03) = \337.12
or \$340 to the nearest multiple of \$10

2. Amount of earnings required for a quarter of coverage

A quarter of coverage is the basic unit for determining a worker's insured status under the social security program. The 1977 Amendments provide that in any calendar year after 1977 an individual will be credited with one quarter of coverage up to a total of four, for each multiple of a specified amount of wages and self-employment income earned in that year. The specified amount for

calendar year 1978 was \$250. The amounts for years after 1978 are determined under the automatic provision in Section 213(d)(2). That section provides that for a given year after 1978, the amount required for a quarter of coverage is determined by multiplying the 1978 amount of \$250 by the ratio of the average wage for two years before the given year to the average wage for 1976, with the resulting product rounded to the nearest multiple of \$10. Thus the three amounts determined since 1978 have been calculated as follows:

1979: $\$250 \times (\$9,779.44/\$9,226.48) = \264.98
or \$260 to the nearest multiple of \$10

1980: $\$250 \times (\$10,556.03/\$9,226.48) = \286.03
or \$290 to the nearest multiple of \$10

1981: $\$250 \times (\$11,479.46/\$9,226.48) = \311.05
or \$310 to the nearest multiple of \$10

3. Bend points in PIA formula and maximum family benefit formula

The formula used to compute an individual's PIA is based on the individual's AIME. For persons newly eligible for benefits in 1979, the formula is:

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

The bend points in the 1979 PIA formula are the two AIME figures \$180 and \$1,085. For persons newly eligible for benefits in 1980 or later, the bend points are determined under the automatic provision in Section 215(a)(1)(B). (Section 215(a)(1)(C) further provides that no PIA may be less than the larger of \$122 or the so-called "special minimum" PIA determined under Clause (i)(II) of the section.)

The formula used to compute the maximum amount of total monthly benefits payable on the basis of the earnings of an individual is based on the individual's PIA. For persons newly eligible for benefits in 1979, the formula is:

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

The bend points in the 1979 maximum family benefit formula are the three PIA figures: \$230, \$332, and \$433. For persons newly eligible for benefits in 1980 or later, the bend points are determined under the automatic provision in Section 203(a)(2).

The sections cited above provide that, for a given year after 1979, each of the bend points in the benefit formulas must be determined by multiplying the corresponding bend points in the 1979 benefit formulas by the ratio of the

average wage for the calendar year two years before the given year to the average wage for 1977, with the resulting products being rounded to the nearest dollar.

Thus, the appropriate average wage ratio is \$10,556.03/\$9,779.44 for determining the 1980 bend points and \$11,479.46/\$9,779.44 for determining the 1981 bend points. Multiplying the bend points in the 1979 benefit formulas by the appropriate average wage ratio resulted in the following bend points for the 1980 and 1981 benefit formulas:

<u>Bend points in benefit formulas</u>	<u>1979 bend points</u>	<u>Product of 1979 bend points and average wage ratio</u>		<u>Bend points for</u>	
		<u>1978/1977</u>	<u>1979/1977</u>	<u>1980</u>	<u>1981</u>
PIA formula--					
First bend point	\$180	\$194.29	\$211.29	\$194	\$211
Second bend point	1,085	1,171.16	1,273.61	1,171	1,274
Maximum family benefit formula--					
First bend point	230	248.26	269.98	248	270
Second bend point	332	358.36	389.71	358	390
Third bend point	433	467.38	508.27	467	508

It should be noted that the recently enacted Disability Amendments of 1980 (Public Law 96-265) provide for a modification to the calculation of the maximum family benefits described above in the case of a disabled worker eligible for benefits after 1978 who was never entitled to disability benefits before July 1980. Under these provisions, the maximum family benefit is calculated as the lesser of (1) 85 percent of the worker's AIME, or (2) 150 percent of the worker's PIA, but no less than 100 percent of the worker's PIA.

4. Contribution and benefit base

The contribution and benefit base is the maximum annual amount of earnings on which an employee or a self-employed person must pay social security tax contributions. It is also the maximum annual amount which may be credited toward benefits in computing the amount a beneficiary may receive under the social security program. As modified by the 1977 Amendments, Section 230(c) of the Act specifies the amount of the contribution and benefit base in effect for each year 1978-81. The amounts specified were \$17,700, \$22,900, \$25,900, and \$29,700 for 1978-81, respectively. For calendar years after 1981, the contribution and benefit bases are again to be determined under the automatic increase provisions of Section 230(b).

5. Contribution and benefit base under provisions in "old law"

The 1977 Amendments modified Section 230 of the Act by substituting ad hoc increases in the contribution and benefit base in each year 1979-81 that were larger than the increases that would have otherwise resulted from the automatic increase provisions of the law. However, each year, under Sections 215(a) and 230(c) and (d), the contribution and benefit base that would have been effective in the following year, under Section 230 as in effect before the 1977 Amendments, must be determined. The provisions under prior law specified that the base for a given year would be determined by multiplying the base for the prior year by the ratio of the average wage for two years before the given year to the average wage for three years before the given year, with the resulting product being rounded to the nearest multiple of \$300.

The contribution and benefit base for 1978 was specified in the Act by the 1977 Amendments to be \$17,700, which was the same amount that was determined to be in effect under the automatic increase provisions of prior law. Thus, the "old law" bases in effect for years 1979-81 were determined as follows:

1979: $\$17,700 \times (\$9,779.44/\$9,226.48) = \$18,760.79$
or \$18,900 to the nearest multiple of \$300.

1980: $\$18,900 \times (\$10,556.03/\$9,779.44) = \$20,400.86$
or \$20,400 to the nearest multiple of \$300.

1981: $\$20,400 \times (\$11,479.46/\$10,556.03) = \$22,184.57$
or \$22,200 to the nearest multiple of \$300.

The "old law" base is used for the given year in crediting workers with a "year of coverage," for the purpose of computing special minimum benefits payable under Section 215(a). A worker who has covered earnings in a year amounting to at least 25 percent of the "old law" base for that year is credited with a year of coverage for the year.

Under Sections 230(c) and (d), the "old law" base for a year is also used for certain purposes under the railroad retirement program and under the Employee Retirement Income Security Act of 1974 (ERISA). Under the railroad retirement program, the "old law" base is used for purposes of determining:

- a. Employer tax liability under Section 3221(a) of the Internal Revenue Code of 1954;
- b. The portion of the employee representative tax liability under Section 3211(a) of the Internal Revenue Code of 1954 which results from the application of the 9.5-percent rate specified therein; and
- c. Average monthly compensation under Section 3(j) of the Railroad Retirement Act of 1974, but not annuity amounts determined under Sections 3(a) or 3(f)(3) of such Act.

Under ERISA, the "old law" base for a year is used to index from 1974 the \$750 per month maximum pension benefit guaranteed by the Pension Benefit Guaranty Corporation for benefit plans terminating in the year, as provided under Section 4022B of ERISA as amended by Public Law 96-364.

Relevant Federal Register Publications

1. "Social Security Contribution and Benefit Base and Retirement Test Exempt Amount for 1975"--Vol. 39, No. 211, October 31, 1974, pp. 38406-38407.
2. "Retirement Test Monthly Exempt Amount and Contribution and Benefit Base for years after 1974" (including description of first-quarter wage data)--Vol. 40, No. 122, June 24, 1975, pp. 26532-26535.
3. "Social Security Contribution and Benefit Base and Retirement Test Exempt Amount for 1976"--Vol. 40, No. 210, October 30, 1975, pp. 50556-50557.
4. "Social Security Contribution and Benefit Base and Retirement Test Exempt Amount for 1977"--Vol. 41, No. 199, October 13, 1976, pp. 44878-44879.
5. "Social Security Contribution and Benefit Base and Retirement Test Exempt Amount for 1978"--Vol. 42, No. 213, November 4, 1977, pp. 57754-57755.
6. Automatic determinations for 1979--Vol. 43, No. 222, November 16, 1978, pp. 53504-53506.
7. "Effects of annual reporting"--Vol. 43, No. 231, November 30, 1978, pp. 56036-56039.
8. Announcement of average wages for 1951-77--Vol. 43, No. 251, pp. 61016-61017.
9. Announcement of "old law" base for 1979--Vol. 44, No. 97, May 17, 1979, p. 28881.
10. Automatic determinations for 1980--Vol. 44, No. 213, November 1, 1979, pp. 62956-62960.
11. New methods for computing OASDI benefits--Vol. 45, No. 5, January 8, 1980, pp. 1605-1611.
12. Announcement of "old law" base for 1980--Vol. 45, No. 65, April 2, 1980, p. 21715.
13. Automatic determinations for 1981--Vol. 45, No. 224, November 18, 1980, pp. 76252-76254.

Table 1.--Average wage series for indexing earnings under the Social Security Act, calendar years 1951-79

<u>Calendar year</u>	<u>Average wage</u>	<u>Calendar year</u>	<u>Average wage</u>
1951	\$2,799.16	1966	\$4,938.36
1952	2,973.32	1967	5,213.44
1953	3,139.44	1968	5,571.76
1954	3,155.64	1969	5,893.76
1955	3,301.44	1970	6,186.24
1956	3,532.36	1971	6,497.08
1957	3,641.72	1972	7,133.80
1958	3,673.80	1973	7,580.16
1959	3,855.80	1974	8,030.76
1960	4,007.12	1975	8,630.92
1961	4,086.76	1976	9,226.48
1962	4,291.40	1977	9,779.44
1963	4,396.64	1978	10,556.03
1964	4,576.32	1979	11,479.46
1965	4,658.72		

Table 2.--Social security program amounts determined under the automatic provisions which depend on increases in average wages, calendar years 1978-81

<u>Calendar year</u>	<u>Contribution and benefit base</u>		<u>Retirement test exempt amount</u>			
	<u>Present law 1/</u>	<u>Prior law</u>	<u>Under age 65</u>		<u>Aged 65 and over 2/</u>	
			<u>Monthly</u>	<u>Annual</u>	<u>Monthly</u>	<u>Annual</u>
1978	\$17,700	\$17,700	\$270.00	\$3,240	\$333.33 1/3	\$4,000
1979	22,900	18,900	290.00	3,480	375.00	4,500
1980	25,900	20,400	310.00	3,720	416.66 2/3	5,000
1981	29,700	22,200	340.00	4,080	458.33 1/3	5,500

	<u>Amount of earnings required for each quarter of coverage</u>	<u>Bend points in PIA formula</u>		<u>Bend points in maximum family benefit formula</u>		
		<u>First</u>	<u>Second</u>	<u>First</u>	<u>Second</u>	<u>Third</u>
1978	\$250	---	---	---	---	---
1979	260	\$180	\$1,085	\$230	\$332	\$433
1980	290	194	1,171	248	358	467
1981	310	211	1,274	270	390	508

1/ Amounts for 1979-81 represent ad hoc increases and are specified in the law.
2/ Amounts for 1978-81 represent ad hoc increases and are specified in the law.

Table 3.--First-quarter averages used in constructing the preliminary indexing series, calendar years 1951-77

Calendar year	Average taxable wage per employee from 100% data	Average taxable wage per wage item from 100% data 1/	Average taxable wage per wage item excluding State and local 2/	Preliminary first-quarter series after linking 3/
1951	---	---	\$592.90	\$692.17
1952	---	---	630.69	736.29
1953	---	---	661.55	772.32
1954	---	---	690.74	806.40
1955	---	---	717.46	837.59
1956	---	---	758.01	884.93
1957	---	---	802.41	936.76
1958	---	\$825.96	824.84	962.95
1959	---	853.43	---	994.98
1960	---	889.50	---	1,037.03
1961	---	918.45	---	1,070.78
1962	---	956.60	---	1,115.26
1963	---	980.37	---	1,142.97
1964	---	1,010.44	---	1,178.03
1965	---	1,026.45	---	1,196.69
1966	---	1,071.44	---	1,249.14
1967	---	1,138.79	---	1,327.66
1968	---	1,218.59	---	1,420.70
1969	---	1,281.63	---	1,494.20
1970	---	1,348.39	---	1,572.03
1971	---	1,430.35	---	1,667.58
1972	---	1,554.59	---	1,812.43
1973	\$1,895.04	1,625.45	---	1,895.04
1974	2,007.69	---	---	2,007.69
1975	2,157.73	---	---	2,157.73
1976	2,306.62	---	---	2,306.62
1977	2,444.86	---	---	2,444.86

1/ Equals the average taxable wage per wage item for the first quarter from 100-percent data in "Current receipts by servicing Internal Revenue District."

2/ Equals the average taxable wage per wage item for the first quarter from 100-percent data in "Current receipts by servicing Internal Revenue District" excluding amounts of wages and numbers of wage items reported by State and local governments. Wages for 1951 estimated from Treasury certification letters.

3/ Figures for 1958-72 equal 100-percent wage-item averages multiplied by 1,895.04/1,625.45. Figures for 1951-57 equal wage-item averages excluding State-and-local data multiplied by (1,895.04/1,625.45) x (825.96/824.84). Each such product being rounded to the nearest cent.

Note: Preliminary indexing series equals four times the first-quarter series.

Table 4.--First-quarter averages used in constructing the final indexing series, calendar years 1951-77

Calendar year	Average taxable wage from 100% data	Average taxable wage from 1% sample 1/	Average taxable wage from 0.1% sample 2/	Final first-quarter series after linking 3/
1951	---	---	\$691	\$699.79
1952	---	---	734	743.33
1953	---	---	775	784.86
1954	---	---	779	788.91
1955	---	---	815	825.36
1956	---	---	872	883.09
1957	---	\$902.41	899	910.43
1958	---	910.36	---	918.45
1959	---	955.46	---	963.95
1960	---	992.95	---	1,001.78
1961	---	1,012.69	---	1,021.69
1962	---	1,063.40	---	1,072.85
1963	---	1,089.47	---	1,099.16
1964	---	1,134.00	---	1,144.08
1965	---	1,154.42	---	1,164.68
1966	---	1,223.71	---	1,234.59
1967	---	1,291.87	---	1,303.36
1968	---	1,380.66	---	1,392.94
1969	---	1,460.46	---	1,473.44
1970	---	1,532.93	---	1,546.56
1971	---	1,609.96	---	1,624.27
1972	---	1,767.73	---	1,783.45
1973	\$1,895.04	1,878.34	---	1,895.04
1974	2,007.69	---	---	2,007.69
1975	2,157.73	---	---	2,157.73
1976	2,306.62	---	---	2,306.62
1977	2,444.86	---	---	2,444.86

1/ Equals the average taxable wage per employee for the first quarter for workers represented in the 1-percent sample LEED file.

2/ Estimated average taxable wage per employee for the first quarter based on the 0.1-percent sample. Sources for these published estimates are as follows: 1951 figure from February 1958 Social Security Bulletin (p. 22); figures for 1952-54 from October 1961 Social Security Bulletin (p. 27); figures for 1955-57 from October 1963 Social Security Bulletin (p. 25).

3/ Figures for 1957-72 equal 1-percent sample figures multiplied by 1,895.04/1,878.34. Figures for 1951-56 equal 0.1-percent sample figures multiplied by (1,895.04/1,878.34) x (902.41/899). Each such product being rounded to the nearest cent.

Note: Final indexing series equals four times the first-quarter series.

Table 5.--Average wages, percentage increases and indexing factors resulting from the preliminary average wage series, the final average wage series, and an average wage series derived from Department of Commerce estimates, calendar years 1951-77

Calendar Year	Average wage		Department of Commerce series		Annual percentage increase		Indexing factor ^{1/}	
	Preliminary series	Final series	Preliminary series	Department of Commerce series	Preliminary series	Final series	Preliminary series	Final series
1951	\$2,768.68	\$2,799.16	---	\$3,037.31	---	---	3.532	3.494
1952	2,945.16	2,973.32	6.37%	3,212.03	6.22%	5.75%	3.321	3.289
1953	3,089.28	3,139.44	4.89	3,372.22	5.59	4.99	3.166	3.115
1954	3,225.60	3,155.64	4.41	3,431.47	.52	1.76	3.032	3.099
1955	3,350.36	3,301.44	3.87	3,584.39	4.62	4.46	2.919	2.962
1956	3,539.72	3,532.36	5.65	3,757.41	6.99	4.83	2.763	2.769
1957	3,747.04	3,641.72	5.86	3,906.44	3.10	3.97	2.610	2.685
1958	3,851.80	3,673.80	2.80	4,024.55	.88	3.02	2.539	2.662
1959	3,979.92	3,855.80	3.33	4,210.33	4.95	4.62	2.457	2.536
1960	4,148.12	4,007.12	4.23	4,343.41	3.92	3.16	2.358	2.441
1961	4,283.12	4,086.76	3.25	4,450.60	1.99	2.47	2.283	2.393
1962	4,461.04	4,291.40	4.15	4,624.91	5.01	3.92	2.192	2.279
1963	4,571.88	4,396.64	2.48	4,786.70	2.45	3.50	2.139	2.224
1964	4,712.12	4,576.32	3.07	5,008.54	4.09	4.63	2.075	2.137
1965	4,786.76	4,658.72	1.58	5,206.53	1.80	3.95	2.043	2.099
1966	4,996.56	4,938.36	4.38	5,431.65	6.00	4.32	1.957	1.980
1967	5,310.64	5,213.44	6.29	5,674.82	5.57	4.48	1.841	1.876
1968	5,682.80	5,571.76	7.01	6,069.10	6.87	6.95	1.721	1.755
1969	5,976.80	5,893.76	5.17	6,474.21	5.78	6.67	1.636	1.659
1970	6,288.12	6,186.24	5.21	6,891.05	4.96	6.44	1.555	1.581
1971	6,670.32	6,497.08	6.08	7,326.91	5.02	6.33	1.466	1.505
1972	7,249.72	7,133.80	8.69	7,817.50	9.80	6.70	1.349	1.371
1973	7,580.16	7,580.16	4.56	8,308.12	6.26	6.28	1.290	1.290
1974	8,030.76	8,030.76	5.94	8,917.32	5.94	7.33	1.218	1.218
1975	8,630.92	8,630.92	7.47	9,581.05	7.47	7.44	1.133	1.133
1976	9,226.48	9,226.48	6.90	10,292.23	6.90	7.42	1.060	1.060
1977	9,779.44	9,779.44	5.99	10,980.60	5.99	6.69	1.000	1.000

^{1/} Represents an approximate factor by which earnings in the year would be multiplied to raise them to the level of 1977 wages. The factor represents the average wage for 1977 divided by the average wage for the specified year, rounded to three decimal places.

Table 6.--Number of "wage items" per employee tabulated from the 1-percent sample LEED file, calendar years 1957-73

<u>Calendar year</u>	<u>Number of "wage items"1/</u>	<u>Number of employees</u>	<u>Number of "wage items" per employee</u>
1957	583,678	514,907	1.134
1958	569,326	512,073	1.112
1959	587,024	522,848	1.123
1960	607,598	540,278	1.125
1961	599,913	538,414	1.114
1962	624,118	554,731	1.125
1963	634,813	565,839	1.122
1964	656,383	581,280	1.129
1965	679,385	600,538	1.131
1966	733,235	632,840	1.159
1967	760,204	659,394	1.153
1968	782,529	677,767	1.155
1969	814,463	704,043	1.157
1970	826,274	719,274	1.149
1971	797,280	707,315	1.127
1972	822,100	723,769	1.136
1973	864,545	753,967	1.147

1/ Represents number of different employer-employee combinations tabulated in the sample.

Table 7.—Average wages for the first quarter for private industry population covered by unemployment insurance 1/, calendar years 1951-75

<u>Calendar year</u>	<u>Average wage for first quarter 2/</u>	<u>Annual percentage increase</u>
1951	\$816.33	--
1952	865.26	5.99%
1953	908.94	5.05
1954	927.31	2.02
1955	960.43	3.57
1956	1,027.36	6.97
1957	1,070.49	4.20
1958	1,080.20	.91
1959	1,126.83	4.32
1960	1,180.94	4.80
1961	1,203.79	1.93
1962	1,258.99	4.59
1963	1,292.62	2.67
1964	1,344.45	4.01
1965	1,359.91	1.15
1966	1,418.75	4.33
1967	1,503.36	5.96
1968	1,591.32	5.85
1969	1,674.99	5.26
1970	1,753.16	4.67
1971	1,834.26	4.63
1972	1,958.60	6.78
1973	2,053.50	4.85
1974	2,188.67	6.58
1975	2,360.25	7.84

1/ Based on data compiled by the Bureau of Labor Statistics and published in the Department of Labor publication "Employment and Wages." The data were obtained from: (1) "First Quarter 1975" issue, Table A-2, p. 13, for 1975; (2) "First Quarter 1974" issue, Table A-2, p. 12, for 1964-74; (3) "First Quarter 1968" issue, Table 2B, p. 22, for 1958-63; and (4) "First Quarter 1961" issue, Table 2, p. 16, for 1951-57.

2/ Equals total wages for the first quarter of the year divided by highest monthly employment totals for the same quarter.

Table 8.--Estimated amounts of Average Indexed Monthly Earnings for maximum wage earners retiring at age 62 in each year 1979-90, calculated using three different wage series for indexing

<u>Year of retirement</u>	<u>AIME calculated using ---</u>		
	<u>Preliminary series</u>	<u>Final series</u>	<u>Series from Department of Commerce estimates</u>
1979	\$1,084	\$1,095	\$1,121
1980	1,196	1,208	1,234
1981	1,328	1,340	1,368
1982	1,432	1,444	1,472
1983	1,539	1,552	1,580
1984	1,651	1,664	1,693
1985	1,768	1,781	1,809
1986	1,889	1,903	1,932
1987	2,017	2,030	2,060
1988	2,150	2,186	2,193
1989	2,289	2,303	2,334
1990	2,435	2,449	2,480

Note: For purposes of these calculations, each of the average wage series was extended for years after 1977 by assuming an increase in average wages of (1) the increase observed in the IRS Form 1040 data for 1978 and 1979, and (2) 5 percent per year for years after 1979.

Table 9.--Summary of wage data tabulated by the Internal Revenue Service from individual tax returns filed for tax years 1977-79

<u>Calendar year</u>	<u>Number of tax returns</u>	<u>Number of wage earners</u>	<u>Amount of wages</u>	<u>Average wage per wage earner</u>
1977	76,065,028	95,003,682	\$954,135,979,198	\$10,043.15
1978	78,495,600	97,998,362	1,062,368,672,591	10,840.68
1979	80,447,077	100,199,302	1,181,250,359,264	11,789.01

Notes: The 1977 data are based on individual tax returns filed for the tax year 1977 and processed by IRS during the period January 1, 1978, through December 31, 1978. The 1978 data are based on individual tax returns filed for tax year 1978 and processed by IRS during the period January 1, 1979, through September 15, 1979. The 1979 data are based on individual tax returns filed for the tax year 1979 and processed by IRS during the period January 1, 1980, through August 11, 1980. In each case, IRS estimates that the above counts represent data from over 97 percent of the individual tax returns that would be processed for the respective tax years.