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attack on the problem, involving the coordinated efforts of the various agencies involved, that has been discussed in some detail in chapter VI with respect primarily to annual estimates.

Other requests for new current data were not, in the view of the committee, acceptable. These were either impractical or of a character that made their compilation on a basis more frequent than annually inappropriate.

Even with requests limited to this extent, there may be certain detailed items of information in addition to corporate profits which the National Income Division cannot provide as promptly as the basic quarterly series. For all such items, it is suggested that a dual publication schedule might be devised to achieve the most timely presentation of results consistent with minimum standards of accuracy. This could be done by reporting the results initially available as soon as possible after the end of the quarter and supplying additional detail after a short time lag of, say, 1 month instead of a full quarter. The additional work and publication costs involved in this proposal would be justified by the widespread and growing use of these data in current analysis throughout the community.

The same line of reasoning leads to the recommendation that as additional data become available which permit revisions these revisions be released as soon as they are made instead of being held, as is the practice now, until the annual estimates are published in July of the following year. At the least, these revisions should be released at the time a new quarterly estimate is given out, in accordance with the usual practice in reporting other current statistics.

The recommended quarterly reports from the National Income Division should be supplemented by the flow-of-funds data now being compiled annually by the Federal Reserve Board. Insofar as possible, the Federal Reserve should plan to make its publication schedule as timely as that of the National Income Division. This suggestion is discussed in chapter XII.

## CHAPTER IX. PROBLEMS OF REGIONAL ESTIMATES

The committee has confined this chapter to a brief summary of recommendations without a detailed discussion of the estimates now existing or of some of the basic problems that arise in building up national accounts for areas smaller than the entire United States because a fairly exhaustive treatment of these subjects has recently become available in *Regional Income (Studies in Income and Wealth, vol. XXI, a collection of the papers presented at the meeting of the Conference on Research in Income and Wealth held in June 1955)*; and because the National Income Division has just published a detailed description of its revised estimates in *Personal Income by States Since 1929*.

### 1. NATIONAL INCOME DIVISION ESTIMATES

Official estimates of State incomes were first published in 1939 and now are available on an annual basis back to 1929.<sup>52</sup> In recent years,

<sup>52</sup> The first systematic unofficial estimates of income by States were prepared by the National Bureau of Economic Research in the early 1920's. (Cf. O. W. Knauth, *Distribution of Income by States in 1919*, and M. Leven, *Income in the Various States: Its Sources and Distribution, 1919, 1920, and 1921*.)

annual estimates have been regularly published in the August issue of the Survey of Current Business. These estimates have found widespread use. Business firms employ them for market analysis, and State government agencies utilize them in estimating tax revenues and in formulating tax and expenditure policies. Within the Federal Government, they have been used as a basis for allocating Federal grants-in-aid and more generally for research underlying administrative decisions and policy recommendations touching on regional problems. Finally, research workers both within and outside government have used them in analyzing a variety of regional problems, and in studying the spatial characteristics of the economic growth of the Nation.

The revision just completed and published by the National Income Division constitutes a major advance over the previously available estimates and should be of very great value to all users of State income data. The old income-payments concept has been replaced by the personal-income concept now employed in the national accounts, and the estimates have been placed wholly on an income received rather than a mixed basis. Not only has there been conceptual improvement, but the figures themselves have been substantially strengthened by the incorporation of data from a number of new sources and by a thorough reworking of all the component series back to 1929. The estimates for total personal income have been extended to 1927, thus providing a more solid point of departure for trend analysis than was possible when 1929 was the earliest year covered by the series. Of very great usefulness is the expansion of industry detail on the source of wage and salary incomes in each State. The new series also covers more types of income in kind. In addition, for selected years, estimates of disposable income in each State have been published for the first time. Finally, recent studies of interstate differences in price trends have been used to determine the extent to which the trends shown by the current dollar estimates deviate from those shown by constant-dollar figures. The latest revisions, therefore, represent a very substantial addition to our knowledge of the distribution of income among the States and will provide a fruitful source of information for a wide range of studies on regional and State incomes.

Since the latest revisions incorporate most of the statistical refinements that are possible on the basis of data currently available, the committee's recommendations are largely of a longer run nature. Of primary importance is the collection and tabulation of new data needed further to strengthen the components of the personal income estimates. The committee recognizes that demand for substantially more data in this area is great and that eventually a more effective response to it must be made. At the moment, however, it is more important to devote most of the scarce resources available to Federal statistical agencies to the improvement of the national estimates. However, the committee believes that a continuing search should be made in State government departments, universities, and other research agencies at the local level for both new data sources and analytical innovations capable of serving eventually to extend more of the national-accounts estimates to a regional and State basis.

## 2. STRENGTHENING THE PRESENT STATE INCOME ESTIMATES

Notwithstanding the substantial improvements introduced in connection with the recent revisions of the State income estimates, there remain some important weaknesses—particularly in the estimates of nonwage incomes—which could be remedied if additional data were obtained.

*(a) Wages and salaries*

Although the wage and salary estimates are for the most part firmly based, here and there the underlying information is sparse. Perhaps the most important gap is the lack of information to adjust the wage and salary data from a where-paid to a where-received basis. The tabulations of Federal individual income-tax returns published in Statistics of Income are based on the addresses shown by the taxpayer, but they cannot be used as a basis for allocating wages and salaries by state of residence because they do not cover the earnings of low-income employees who are not required to file returns; moreover, they do not provide any breakdowns by class of worker or by industry. The residence adjustments are based, therefore, on data of a piecemeal variety which permit the conversion of the estimates to a where-received basis for only 14 States and the District of Columbia. To remedy this weakness, consideration should be given to the addition of a question in the decennial censuses to determine whether the wage or salary worker is employed in the same State in which he resides. Tabulations based on the replies to this question would be useful not only for the preparation of State income estimates, but also for analyses that are now being conducted in a number of cities on the problems of metropolitan areas.

The most recent old-age and survivors' insurance figures on the payrolls of small firms by States relate to the first quarter of 1951. Until recently, these figures were used to correct the excellent State data derived from the unemployment insurance records for firms employing fewer than eight persons. Beginning in 1956, however, the coverage of unemployment insurance was extended to firms employing four or more persons, so that the 1951 old-age and survivors' insurance data cannot be used to make the necessary corrections. The committee recommended that a new tabulation of the old-age and survivors' insurance data by States be made for a more recent year and that similar tabulations be prepared periodically, say, once every 3 years, in order to keep the corrections up to date.

Aside from these two major improvements, the committee recommends a number of steps to improve some of the industry detail in the wage and salary estimates by States:

(1) The Office of Education should expand its questionnaire on employment and payrolls of private educational institutions. Since this is an area in which it has expert knowledge, it would be desirable that the Office of Education act not only as a collection agency but also prepare the estimates that are incorporated in the official State income series.

(2) Considerable work needs to be done to improve the reliability of the State allocations of military payrolls and other disbursements. Consideration should be given by the military services to the sampling of both individual and payroll records and of the records of depend-

ency allotments in order to provide the necessary information. At a minimum, an effort should be made by the military services to break down their payroll data as between persons in continental United States and those employed overseas.

(3) Improved estimates of the State distribution of wages and salaries paid by the railroad industry could be made if the Railroad Retirement Board were to require the reporting of payrolls by State of residence. If this information were available on the records submitted to the Board, it would be relatively easy to tabulate the wages and salaries paid by the small number of class I railroads in a manner that would be usable directly for the State income estimates.

(4) The sample of the census surveys of State and local government employment and payrolls should be enlarged and consideration should be given to taking them once every 3 or 6 months, instead of only once a year. (For a discussion of this and other recommendations for improving the data for State and local governments, see ch. XI, sec. e.)

(5) The State tabulations of income data collected in the decennial censuses should be cross classified by type of income (wages and salaries, self-employment income, and other income), by class of worker (public or private employees, or self-employed) and by industry.

#### *(b) Nonwage incomes*

The primary source on the distribution of property and nonfarm proprietors' incomes by States are the tabulations of Federal individual income-tax returns. However, in recent years, these tabulations have contained distributions only of wages and salaries, dividends, and interest by States. For other items the latest distributions available are 15 years old. It is likely that the present sample can provide sufficiently reliable State totals for rents and royalties and nonfarm entrepreneurial incomes. In any case, the information should be tabulated for the benefit of the National Income Division, and only the figures that have a sufficiently small sampling error should be released to the public. In preparing such tabulations, the Internal Revenue Service should separate farm from nonfarm entrepreneurial incomes, since the combined totals are of practically no value either for estimating purposes or for analyses of State income differentials.

With respect to farm income, the major problem is that there is now very little basis for estimating the production expenses that must be deducted from gross farm incomes to arrive at the net figures by States. It may not be necessary to obtain such data every year for each State. However the Department of Agriculture should devise sample surveys to provide the necessary information at least at less frequent intervals.

In the case of nonfarm business incomes, the information on self-employment incomes reported to the Social Security Administration could be utilized more effectively if benchmark tabulations comparing total self-employment income with taxable self-employment income were prepared. Such tabulations, combined with the type of income breakdown of the State data in the decennial census recommended above, would ultimately permit the estimation of nonfarm business incomes in the various States by industry.

*(c) Price data*

A recent study by members of the staff of the Bureau of Labor Statistics shows that price trends in the various States have been fairly similar over the past several decades.<sup>63</sup> This suggests that the relative trends among States shown by the current-dollar estimates of personal income are a reasonable approximation to those in constant dollars. As a check of the constancy of this relation, the committee recommends the extension of these price estimates by the Bureau of Labor Statistics on an occasional basis.

*(d) Disposable income*

As noted above, Personal Income by States Since 1929 presents for the first time official estimates of disposable income in each State for selected years: 1929, 1940, 1946, 1950, and 1953. On the whole, these estimates do not result in any significant alteration of the relative income position of the various States that is derived from the estimates of personal income before tax. The committee recommends that these estimates should also be continued on an occasional basis, so that a continuing check on the relationship between State personal and disposable incomes can be maintained.

### 3. FURTHER EXTENSION OF DATA IN THE NATIONAL ACCOUNTS BY STATES OR OTHER AREAS

A number of possible extensions of the State estimates have been suggested to the committee. At the extreme, it has been recommended that the long-run objective should be to prepare for each region or State a set of social accounts paralleling those for the national economy, including an income and product account, a balance of payments, an input-output matrix, a flow-of-funds statement, and a balance sheet. As we have already indicated, such an approach would be unwise simply because the preparation of estimates for 48 States—or even for half a dozen to a dozen regions—would be prohibitively expensive. Even though the additions to our knowledge of the causes of interregional and interstate differentials might be considerable, it is the committee's view that, at least for the foreseeable future, the emphasis by the Federal statistical agencies should be mainly to expand and improve the accounts for the Nation as a whole.

We would like, however, to encourage further work on regional and State economic problems by State agencies or private research organizations. It is our belief that most progress will be made in this direction if the States themselves undertake to develop more comprehensive accounts, with the cooperation of the universities, private foundations, and the regional Federal Reserve banks. We urge the Federal statistical agencies to cooperate in such undertakings, as they have done in the past. For example, the Census Bureau has on occasion conducted sample income-distribution surveys for particular States on a contract basis.

In the committee's view, this is by far the best procedure. Not only would the direct preparation of more detailed State data be beyond the resources of a Federal agency like the National Income Division, but in many respects it would be less efficient. The local unit

<sup>63</sup> Abner Hurwitz and Clarence B. Stallings, *Interregional Differentials in Per Capita Real Income Change*, *Studies in Income and Wealth*, vol. 21, pp. 195-264.

may be able to utilize sources of information that would be overlooked if the operation were centralized in Washington and would be able to enlist the talents of persons who are familiar with local conditions and who can provide expert assistance in the planning of the type of study needed for the particular committees and in the collection of the necessary information. The recent studies of the Chicago Federal Reserve Bank in Milwaukee and Indianapolis are valuable attempts to develop a system of income and product accounts for metropolitan areas. Experiments have also been made with the use of local input-output tables as a means for community surveys by a research group of the National Planning Association.

The following are among the areas that might be explored in this way by local groups. In submitting this list, the committee wishes to emphasize that the items are illustrative only. There are undoubtedly others that are worthy of exploration and these should also be examined when the need arises.

*(a) Income estimates for areas smaller than the State*

Estimates of income for areas smaller than the State, for example for counties or metropolitan areas, are of use to governmental units in the study of local problems and to business firms in market analysis. In recent years a number of studies of this nature have appeared, particularly estimates of county income in a number of Southern States. The approach followed in developing these estimates is illustrative of that favored by the committee—preparation of the estimates by a local organization with assistance by the statistical agencies of the Federal Government on methods and data. This arrangement seems most conducive to the future development of estimates of this type.

*(b) Income originating*

The present State income estimates relate to the income received by the residents of a State. For some purposes—for example, in problems of taxable capacity or regional comparisons of productivity—it would be helpful to have estimates of income originating in the State, that is, the income paid out by establishments operating within the boundaries of the State, regardless of whether the income recipients live within or without the State.

The chief obstacle to securing figures on this basis is the difficulty of distributing property income by State of origin. For example, a firm having establishments operating in a number of States may report its profits only on the combined operations of all establishments under its ownership. The same problem is encountered in estimating the distribution of income originating by industry, since a particular firm may own establishments operating in several industries. Elsewhere we have recommended that the problems of estimating profits by industry of origin be explored. It would be desirable to explore at the same time the possibility of extending the allocation to States as well as to industry of origin. For such exploratory work, the method need not be highly refined. What is needed is a rough indication of the extent to which income originating in each State differs from the present estimate of income received, so that the problem may be assessed properly and rough allowances made, if necessary, for the disparity between the two income estimates.

*(c) Interstate price differentials*

Although a fairly comprehensive investigation has recently been made of interstate differences in price trends, there is still no information on the differences in price levels among the various States. Such a study is needed to determine the extent to which interstate differences in money income reflect real income differences, a consideration of importance in using the estimates for allocating grants-in-aid. Needless to say, a study of this type would require close cooperation with the Bureau of Labor Statistics and the Department of Agriculture.

*(d) Gross regional product*

It is clear that the development of an estimate for each State of gross product and its components would add an important body of data on the economic structure and development of various areas of the United States. Such estimates would provide a variety of useful information—for example, they would provide comparisons of regional expenditure patterns, distributions of important categories of goods produced by geographic area, and estimates of personal savings in the various States, and would permit an analysis of the geographic impact of changes in demand for particular categories of goods. Although the difficulties of deriving gross product estimates by geographic areas are very great, consideration should be given to the possibility of preparing such estimates. Exploratory studies on several components of the gross national product (for example, producers' durable goods and houses) might be undertaken first and the list could be enlarged after some experience with the practical problems is obtained. Such studies would provide interesting insights irrespective of whether the derivation of the entire gross product proved feasible. It would also provide a firmer basis than now exists for assessing the difficulties and estimating the costs of preparing the complete range of gross product estimates for each State.

*(e) Other national accounts*

Further work might also be done to extend the input-output tables, the balance of payment statements, the flow-of-funds accounts, and the balance sheet in directions that would improve their adaptation to regional analysis. Although work of this type has progressed much less than that on the income and product accounts, some estimates—generally preliminary and exploratory in nature—have been prepared at several of the Federal Reserve banks. Regional input-output tables are perhaps of greatest potential usefulness, since they would help to improve and check the existing income and product data and would provide a basis for estimating gross and net flows of goods among regions. However, considerable refinement of all three of these relatively new and still evolving techniques of summarizing national economic activity will be required before they can be applied to regional analysis.

## CHAPTER X—SIZE DISTRIBUTIONS OF INCOME

Distributions of personal income by size classes broaden the picture of the economy that is obtained from other data in the national income and product accounts. They are useful for many purposes—as a