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## Foreword

THIS BOOK is a further instalment of the rich harvest from the state income studies undertaken in the late 'thirties with the encouragement, counsel, and support of the Conference on Research in Income and Wealth. The initial instalment consisted of voluminous statistical tables, rearranging and retabulating the original data to provide an empirical basis for analytical studies. The two volumes of tables based on Delaware income tax returns for 1936-38 derive their importance from the universal filing requirement in Delaware—no person receiving income is exempt from filing an income tax return.<sup>1</sup> The fifteen volumes based on Wisconsin income tax returns for 1929-36 and published by the Wisconsin Tax Commission contain data for a state that has a more representative economic structure than Delaware's and that in 1929-36 had lower income tax exemptions than the federal government and most other states.<sup>2</sup> Moreover, the Wisconsin

<sup>1</sup> *Delaware Income Statistics* (University of Delaware, Bureau of Economic and Business Research), Vol. I, 1941, Vol. II (unpublished).

<sup>2</sup> Frank A. Hanna, *A Critical Analysis of Wisconsin Individual Income Tax Statistics; Wisconsin Individual Income Tax Statistics: 1929 Income*, Vol. I, Aggregate Tables and Geographic Distributions, Vol. II, Occupational and Industrial Income; *Wisconsin Individual Income Tax Statistics: 1934 Income*, Vol. I, Aggregate Tables and Geographic Distributions; *Wisconsin Individual Income Tax Statistics: 1935 Income*, Vol. I, Aggregate Tables and Geographic Distributions, Vol. II, Industrial Income; *Wisconsin Individual Income Tax Statistics: 1936 Income*, Vol. I, Tax Analysis, Vol. II, Geographic Distributions, Vol. III, Occupational and Industrial Income, Vol. IV, Patterns of Income, Vol. V, Detail by Occupation and Industry; *Changes in Income of Identical Taxpayers, 1929-1935; Characteristics of the Sample of Identical Taxpayers; Number of Persons over 65 Years of Age Wholly Dependent upon Persons Filing Individual Income Tax Returns for 1929 and 1935; Patterns of Income, 1929 and 1935.*

tabulations are fuller and more detailed than any other ever made from income tax data. The four volumes on Minnesota incomes contain data from a field survey covering the entire state and incomes of all sizes, and, in addition, from state income tax returns and unemployment compensation records.<sup>3</sup> They are a unique basis for studying the interrelations of data from these diverse sources.

These three sets of basic data contain source material for many analytical studies. Their richness and value for this purpose are suggested by the six such studies now published: the three in *Analyses of Minnesota Incomes, 1938-39*<sup>4</sup> and the three of Wisconsin incomes in this book. It may be hoped that these are but forerunners of many more.

The Wisconsin Tax Commission volumes are the product of a special study under its auspices, directed by Frank A. Hanna, and financed largely with funds appropriated by the Works Progress Administration. After completion of the tabulations of Wisconsin individual income tax returns for 1929-36, a grant was made by the Rockefeller Foundation to the University of Wisconsin to permit analysis of some aspects of the data. This book contains three of the studies thereby made possible.

Their central theme is the personal distribution of income—how the income derived from productive activity is divided among the individual members of the community. The personal distribution of income, as Joseph A. Pechman notes in Part II, has received far less attention in economic theory, and probably also in empirical work, than the functional distribution—the division of income according to the productive function performed by resources. This relative neglect of the personal distribution of income calls for some explanation, since it seems clear that knowledge of the personal distribution is needed both to understand the working of the economic system and to solve many problems of public policy. A likely explanation is the greater difficulty of

<sup>3</sup> *Minnesota Incomes, 1938-39: A Report on the Distribution of Family and Individual Incomes by the Minnesota Income Study*, Vol. I-IV (Minnesota Resources Commission, St. Paul, Minnesota, June 1942), prepared under the supervision of William Weinfeld.

<sup>4</sup> By R. G. Blakey, William Weinfeld, James E. Dugan, and Alex L. Hart (University of Minnesota Press, 1944).

dealing with the personal distribution, the greater paucity of data on it, and the expense of collecting such data, combined with the impression, which, as we shall see, is mistaken, that there is a simple connection between the personal and functional distribution of income so that it is possible to pass easily from one to the other.

The function of empirical research of the kind contained in this book is ordinarily considered to be to answer questions, and its usefulness and importance is ordinarily judged by the significance of the questions it seeks to answer and the fullness and certainty of the answers it gives. These studies of Wisconsin incomes demonstrate the incompleteness of this view. They answer few questions. Their real and lasting significance derives rather from the new questions they raise and the supposedly settled questions they reopen. Though the reader will find himself somewhat richer in settled facts, he will probably find that his main reward is a vastly enhanced appreciation of the important unsettled questions in the field of the personal distribution of income and an almost boundless skepticism about the possibility of answering without detailed study questions he had formerly considered simple and to which he thought he knew the answers.

To indicate the contribution these studies make by raising new questions and reopening old ones, we shall consider their bearing on (1) the meaning of an income recipient, (2) the meaning of a distribution of annual income, and (3) the relation between the functional and personal distribution of income. In the course of discussing these specific problems, we shall have occasion to refer to many of the factual results of the studies. For a systematic summary of the findings the reader is referred to the first chapter in each Part.

## I THE MEANING OF AN INCOME RECIPIENT

Part I presents estimates of the income received in Wisconsin in 1936, distributed by size and by type of income. The character of the tax data used made it necessary to take an individual as the income receiving unit and to have a broad initial income group. Table 1 shows the number of income recipients with 1936 in-

comes in the indicated groups, an income recipient being any person receiving any income in 1936.<sup>5</sup>

At first blush, the use of the individual as the income receiving unit seems entirely appropriate and desirable. Theoretical discussions of the personal distribution of income not infrequently take the individual as the basic income receiving unit, though the income receiving unit appropriate to various problems is seldom discussed explicitly. The pioneering statistical study of the personal distribution of income in the United States, published by the National Bureau in 1921 and 1922, takes the individual as the income receiving unit in its estimate of the distribution of income by size in the United States in 1918.<sup>6</sup>

Doubts accumulate about the relevance and meaning of a distribution of income among individuals, however, as one reads Part I. The attempt to estimate the total number of income recipients brings into sharp relief deficiencies that tend to be neglected when the problem is considered in the abstract. Figures are available, for example, giving the employment month by month in each firm employing more than eight persons in industries covered by unemployment compensation. One could hardly ask for more detailed data. Yet these data can be used to estimate the number of individuals receiving wages from such firms only by making essentially arbitrary assumptions. The total number reported as employed by all firms in a certain month may exceed the number receiving wages from these firms since one person may have been employed by more than one firm. The maximum number receiving wages from these firms in any one month may fall short of the total number receiving wages from these firms in a year since some persons not employed during the month of maximum employment may have been employed in other months.

Difficulties multiply when the authors turn to noncovered industries. The data for these industries are in general poorer, and

<sup>5</sup> We shall neglect certain minor but troublesome problems arising in defining an income recipient; for example, for Wisconsin tax purposes income received by a nonresident from Wisconsin sources is counted as income, but income received by a resident from out-of-state sources is not, and this treatment is followed in this book.

<sup>6</sup> Wesley C. Mitchell, W. I. King, F. R. Macaulay, and O. W. Knauth, *Income in the United States*, Vol. I (1921), Vol. II (1922). The distribution is given in Vol. I, p. 134.

there is the additional problem of adjusting for persons who receive wages from both covered and noncovered industries. Again arbitrary assumptions must be made, and even if these are approximately correct, it is highly doubtful that all wage recipients are included. How does one get information, for example, on the school boys who pick up a few dollars in the course of a year by running errands, mowing lawns, and doing other odd jobs?

Similar difficulties arise in attempting to estimate the number who receive income from business and property, and the number of these who receive no wages. The only data available on persons receiving only property income are from income tax returns. There must be many whose income is solely from property who do not file returns—for example, the housewife who receives some interest from a separate savings account, the child who has been given a bond or a few shares of stock and receives some interest and dividends. For want of data, such persons are entirely excluded from the income recipients in Table 1.

These difficulties do not simply reflect lack of data. The difficulties of estimation could be surmounted by questioning individuals directly, as was done, for example, in the field survey of Minnesota incomes. But the difficulties of interpretation would still remain. When we think of an income recipient, we naturally tend to think of an adult receiving income on which he lives and supports his dependents. Most income recipients are of this type. But a substantial minority are not. What does a distribution that lumps the 'regular' income recipients with this minority mean? Of the 1,390,684 income recipients in Wisconsin in 1936, 92 percent received less than \$2,000 (Part I, Table 1). This percentage has only an indirect bearing on such questions as the equity of the distribution of income, the adequacy of the incomes received to maintain any specified standard of living, and the like, so long as it is not supplemented with data on the responsibilities of the income recipients.

The difficulties cited are not minor; they are not merely perfectionist quibbles. According to the 1940 Census, 1,227,550 persons 14 years and over in Wisconsin considered themselves in the labor force. This figure is a rough approximation to the number of 'regular' income recipients depending in part at least upon earnings. True, it includes persons who happened to be in the

labor force on the Census date but were not in the labor force most of the year; it excludes, however, those who were not in the labor force on the Census date but were at other times. Seasonal factors and statistical errors aside, therefore, the number of persons in the labor force on a specific date is an estimate of the number of equivalent 'regular' earners. Yet, though surely more persons were in the labor force in 1940 than in 1936, the number in the labor force in 1940 is 163,134 less than the number of income recipients in Table 1, and only about one-tenth of the difference is accounted for by the number estimated to receive only property incomes.<sup>7</sup> Apparently, recipients of sporadic income from personal services are a substantial minority, numbering, according to these rough figures, over 10 percent of all income recipients. The Minnesota field survey, which obtained its data directly from individuals, estimates that approximately 80 percent of the individuals receiving earnings (defined to include both wages and salaries and net entrepreneurial income) during the twelve months from October 1, 1938 through September 30, 1939 were employed 50-52 weeks; the other 20 percent were employed fewer than 50 weeks. And it seems likely that the field survey omitted many persons with only a few dollars of earnings. Of the earners employed 50-52 weeks, 6.2 percent received earnings of \$0-249; of those employed fewer than 50 weeks, 35.8 percent received earnings of \$0-249.<sup>8</sup>

Most of these difficulties can be surmounted by redefining the income receiving unit. The emphasis placed upon the functional distribution of income and upon the productive process naturally leads us to consider the individual who provides resources as the basic income receiving unit. We must, however, shift our emphasis when we turn to the personal distribution of income. For some purposes—for example, estimates of yields from individual income taxes or analyses of certain types of income derived from particular resources engaged in specific activities (such as studies of earnings in different occupations)—the individual is still the appropriate unit. But for most purposes, he is not. A personal distribution of income is ordinarily desired as a basis for judg-

<sup>7</sup> See Part I, where it is stated "the Wisconsin estimates . . . show that property was the sole source of income for 2 percent of all recipients."

<sup>8</sup> *Analyses of Minnesota Incomes, 1938-39*, p. 66.

ments about the equity of the distribution of income, the magnitude of the problem of public relief and assistance, possible differences in consumption patterns, and the like. For such purposes the relevant unit is likely to be the household or family.

A few figures will show the important difference between a distribution of income among individuals and among family units. According to the Minnesota Field Survey, nearly 14 percent of the individual earners in Minnesota received *earnings* of less than \$250 in 1938-39, whereas only 9 percent of the economic units (families plus unattached single individuals) received *earnings* of less than \$250, and only 5 percent of the economic units received *incomes* of less than \$250; 88 percent of the earners received *earnings* of less than \$2,000, 83 percent of the economic units received *earnings* of less than \$2,000, and 82 percent of the economic units received *incomes* of less than \$2,000.<sup>9</sup>

## 2 THE MEANING OF A DISTRIBUTION OF ANNUAL INCOME

The discussion of the meaning of an income recipient indicates that the accounting period can affect the number of recipients and hence the distribution of income among them. Fewer persons receive income during a month than during the year including that month, and a further lengthening of the period will further increase the number of recipients. This effect of the accounting period is lessened but by no means removed when the family is the income receiving unit. A family is less likely to be transient than an individual income recipient, though families too are formed, change their composition, and disappear in the course of time.

More important problems arise, however, in interpreting a distribution of annual income. These are brought out sharply in Part III, which is based upon a special sample of persons who filed tax returns each year 1929-35. The incomes of husbands and wives filing separately were combined to yield an approximation to family income. This is as far as it was possible to go with the income tax data, though it would clearly have been desirable to include also the incomes of any other members of family units.

<sup>9</sup> *Ibid.*, pp. 38, 89, 114-5.



As Hanna points out, the income a man receives during a year may be only a rough indication of his long-run income status. His income for that year may be abnormally low or abnormally high for any of a wide variety of reasons. The meaning of a distribution of annual income depends upon the importance of such shifts in income from year to year. Suppose that two communities have identical frequency distributions of annual income in each year; that in one community each income receiving unit maintains the same position in the distribution from year to year, while in the other, the position of units changes markedly, many of those at the top of the distribution in one year being at the bottom in another, and conversely. Clearly there would be a real difference in the income structure of the two communities that could never be discerned from distributions of annual income. In the first community, income for a period longer than a year would vary exactly as much among the units in the community as annual income; in the second, it would vary much less than annual income.

One suspects that differences something like those just sketched apply to different countries. General knowledge suggests that there is—or at any rate was before the war—more economic stratification in Great Britain, for example, than in the United States, and that, in consequence, relative income status is more stable over time in Britain. If this conjecture is correct, distributions of annual income would tend to misrepresent the inequality of income in the two countries. Even though distributions of annual income showed only as much or less inequality for Britain, there might still be more long-run inequality in Britain than in the United States.

Data for studying changes in income status over time have become available for the first time in recent years, and so far few studies have been made. Simon Kuznets and I attacked the problem for earnings from independent professional practice, and Horst Mendershhausen for family income.<sup>10</sup> The data analyzed by Hanna in this volume cover all types of income and a longer period than either of the other bodies of data and yield direct

<sup>10</sup> *Income from Independent Professional Practice* (National Bureau of Economic Research, 1945), Ch. 4, Sec. 1c; Ch. 7; *Changes in Income Distribution during the Great Depression*, Studies in Income and Wealth, Vol. Seven (National Bureau of Economic Research, 1946).

estimates of the distribution of income for longer accounting periods (see especially Part III, Ch. 4); they are narrower in geographic scope and constitute a more biased sample of all income receiving units of the type studied. All three studies use comparable techniques of analysis, since Mendershausen and Hanna (particularly in his Ch. 5) adopt the techniques used and developed in *Income from Independent Professional Practice* to analyze shifts in relative income status from year to year. Similar data are available from the study of Delaware income tax returns but have not yet been analyzed.

These studies show that there is considerable shifting from year to year in the positions that individuals or families occupy in the distribution of income by size. The variability of income for a two or three year period tends to be decidedly less than the variability of annual income. Large differences in variability among annual distributions—for example, the differences among the professions or among income sources—may be narrowed but are unlikely to be erased by lengthening the accounting period. On the other hand, relatively small differences in variability among distributions of annual income are extremely unreliable indications of differences in long-run variability.

Chart 9 of Part III shows the effect on the Lorenz curve of using accounting periods longer than a year. The effect of lengthening the accounting period is clear, but seems not to be great. Yet a glance at Chart 6 of Part III, which shows Lorenz curves for different years, indicates that the effect of lengthening the accounting period is at least as great as the changes from year to year in Lorenz curves based upon distributions of annual income, and the data used here probably understate the effect of lengthening the accounting period more than they understate the differences among annual distributions of income.<sup>11</sup> Any conclusions about changes in inequality based solely on annual distributions of income must therefore be suspect, since our fundamental concern is with inequality of income over longer periods, and lengthening the accounting period might well reverse the apparent change in inequality.

<sup>11</sup> The data here are solely for persons who filed tax returns for seven consecutive years. Such persons are likely to have had narrower fluctuations in income than persons who did not file returns every year.

A somewhat different measure of the importance of shifts in income status from year to year is given by the correlation coefficients between incomes in different years (Part III, Table 15). For 'economic income', the most significant of the income items, the correlation between incomes in successive years ranges from .83 for 1931 and 1932 to .86 for 1934 and 1935. That is, somewhat less than three-quarters of the variability of income in any year can be accounted for by the variability in the preceding year; over one-quarter is attributable to other factors, factors that affect the income of an individual in one year but not in both. The relative instability of various sources of income is shown by the correlation coefficients. Interest and wages are on the whole the least unstable; dividends, business profits, and rents follow; and capital gains and losses are by far the most unstable.

### 3 RELATION BETWEEN THE FUNCTIONAL AND PERSONAL DISTRIBUTION OF INCOME

The income of an income receiving unit in any period can be calculated from (1) the amount of resources of various types the unit owns or controls, (2) the fraction of the potential services each resource is capable of providing that is devoted to income-yielding activities during the period in question, (3) the rates of remuneration for the services of the resources. Given this information for each income receiving unit, it is clearly possible to aggregate the amounts received for the services of each type of resource and derive a functional distribution of the income of all income receiving units combined.<sup>12</sup> It is equally clear that it is impossible, without additional knowledge, to work backwards from the functional distribution of aggregate income to the personal distribution.

Additional knowledge is, of course, available, and it has frequently been supposed that this knowledge is sufficient to permit

<sup>12</sup> This statement neglects a host of problems involved in defining the income receiving unit, distinguishing among types of resource, specifying what ownership, control, and receipt of income are to mean. The most troublesome are the treatment of business enterprises, incorporated and unincorporated, and government; and the determination of the capital consumption allowances to be deducted from gross income to determine net income.

changes in the personal distribution to be inferred from at least certain changes in the functional distribution. The chief additional knowledge on which such inferences have been based is that wages and salaries are the major source of small incomes, and income from property of very large incomes; and that entrepreneurial income is a larger fraction of large and intermediate than of small incomes. In consequence, it is commonly supposed that anything that tends to increase the share of property or entrepreneurial income in aggregate income redounds primarily to the benefit of income receiving units with relatively large incomes and hence increases the inequality of income, and conversely.

The data in Part II confirm in broad outline the 'additional knowledge' sketched above, though, as we shall see, they modify it in important details. But the analysis casts considerable doubt upon whether this knowledge is sufficient to enable changes in the personal distribution to be inferred from changes in the functional distribution. Pechman finds that changes in either the amount or distribution of specific sources of income lead to much smaller percentage changes in the personal distribution of aggregate income, so that inferences from the small percentage changes in specific sources that actually occur are bound under any circumstances to be treacherous.

Pechman finds also that both an increase in aggregate income and an increase in the inequality of the distribution of income tend to be associated with a decrease in the share of wages in aggregate income. Hence a decrease in the share of wages accompanied by an increase in aggregate income is entirely consistent with a reduction in inequality, and an increase in the share of wages accompanied by a decrease in aggregate income is entirely consistent with an increase in inequality. Only if both aggregate income and the share of wages increase is there even a presumption that inequality has lessened, and only if both decrease, a presumption that inequality has increased.

These specific conclusions rest heavily on Pechman's finding that the composition of income depends primarily upon absolute rather than relative income level; that is, his finding that persons with incomes of \$1,000 receive the same fraction of their total income from wages in years when national income is high as in

years when national income is low, and similarly with other sources of income and other absolute income levels. This finding cannot be considered conclusively established; hence some doubt attaches to Pechman's conclusions about the conditions under which it is possible to infer changes in the functional distribution of income from changes in the personal distribution of income. Little doubt, however, attaches to the general conclusion that such inferences are exceedingly hazardous; indeed, the uncertainty attaching to Pechman's finding about the stability of the composition of income at given income levels strengthens this general conclusion.

The significance of this general conclusion, as well as some of the more interesting details of Pechman's figures, may be brought out by an example of considerable current interest—the distributional effects of a rise in rents charged for residential housing. From our general impression that families with high incomes *receive* a larger fraction of their income from property than families with low incomes, while families with low incomes *pay* a larger fraction of their income for housing than families with high incomes, it is tempting to infer that any policy measure that would increase the share of rents in national income would tend to transfer income from relatively low to relatively high income groups—an effect that many would consider adverse and hence a count against the policy measure.

Table I in Part II confirms the far greater importance of property income at higher income levels. Property income (all sources except wages and salaries and business and partnership profits) is 7 percent of the total income of persons with incomes between \$1,000 and \$2,000; 88 percent of the total income of persons with incomes of \$100,000 and over; and an intermediate share of the total income of persons with intermediate incomes. But Table I also adds a dissenting note. Property income is 14 percent of the total income of persons with incomes of \$0-1,000, or twice as large a fraction of their income as of the income of persons in the next \$1,000 income group. Persons with low incomes apparently also have a stake in property income. The significance of this stake is even clearer from Table 6 in Part II. Property income is the largest receipt of over 14 percent of the persons reporting a total income between \$0 and \$1,000 but of only 4 percent of the per-

sons reporting a total income between \$1,000 and \$2,000. The percentage does not again exceed 14 until the \$6,000-8,000 income group is reached. Over half of all the persons whose largest receipt is from property had a total income of less than \$1,000.<sup>13</sup>

Who are these low income 'investors'? Pechman's tables do not provide an empirical answer. We can conjecture that they include the 'widows and orphans' so popular in discussions of policy, and elderly persons who have retired from active employment and are living on their capital and the small income it yields. But in view of the source of Pechman's data, they must include also two groups it would be preferable to exclude for our present purpose: housewives who receive some property income that they report separately on tax returns and whose husbands have considerably larger incomes, and persons temporarily unemployed who are ordinarily in higher income groups. Minnesota field survey data for economic units, rather than individual income recipients, suggest, however, that these groups do not fully account for the apparently greater importance of property income to very low than to intermediate income groups. Income from property is nearly 9 percent of the cash income of economic units with total incomes between \$0 and \$1,000, only 3 percent of the cash income of economic units with total incomes between \$1,000 and \$2,000, and 14 percent of the cash income of economic units with total incomes of \$5,000 and over.<sup>14</sup> Nearly 85 percent of all economic units having no gainfully employed member reported less than \$1,000 total income; whereas only 44 percent of all economic units did.<sup>15</sup>

<sup>13</sup> Income tax data, on which these figures are based, may tend to overstate the importance of property income at the lowest income levels. The data from the Minnesota field survey cited below, however, indicate that the general picture is essentially correct.

<sup>14</sup> *Minnesota Incomes*, Vol. II, Tables 19 (p. 159), 23 (p. 180), and 27 (p. 207). Income from property was computed as cash investment income plus capital gains and losses; cash income, the base of the percentages cited, does not include capital gains and losses; and total income, the basis of the income classification, is broader than cash income, including income in kind as well. For more detailed definitions of the terms see *ibid.*, pp. xxxii-1.

<sup>15</sup> The percentages in finer income groups follow. Economic units having no gainfully employed members: negative total income, 0.4; \$0-249, 16.1; \$250-499, 37.1; \$500-749, 20.1; \$750-999, 10.7. All economic units: negative total income, 0.7; \$0-249, 4.2; \$250-499, 11.1; \$500-749, 15.0; \$750-999, 12.8 (*Analyses of Minnesota Incomes*, pp. 29 and 129).

Table I in Part II shows that there is a striking difference between the sources from which low and high income groups derive their income from property. The percentages of total income contributed by dividends and capital gains rise very sharply with income; the percentage contributed by interest at first falls, then rises mildly; the percentage contributed by net rents first falls, rises moderately, then falls again; it is highest in the \$1-999 income group, which gets 35 percent of all its property income from rent, and 78 percent from rent and interest combined. In contrast, only 11 percent of the property income of persons with incomes over \$100,000 comes from these two sources and 89 percent from dividends and capital gains.<sup>16</sup> According to Appendix Table I in Part II, 67 percent of the persons reporting rent as their largest receipt had total incomes under \$1,000; 55 percent of those reporting interest; 45 percent of those reporting dividends; 20 percent of those reporting capital gains, and 51 percent of the persons reporting other property income as their largest receipt.

These figures indicate that rent and interest are the chief source of property income to low income groups; dividends and capital gains, to high income groups. Combined with the important stake the lowest income groups have in property income in general, they strongly suggest that the tentative conclusion with which we started—that a rise in the share of rent in national income would transfer income from relatively low to relatively high income groups—is by no means obvious. Indeed, they give at least as much support to exactly the opposite conclusion, though they are by no means sufficient to demonstrate its validity.

Once again we find that an inference from a change in the functional distribution to a change in the personal distribution that might offhand seem obvious could be established or disproved only by a fairly extensive study. Such a study would have to consider many factors in addition to those discussed above: for example, the tables in Part II include rent from both business and residential property, and are for net rent, whereas a rise in rents would have no immediate effects on expenses; some residential rents are paid to corporations and are received by individuals as

<sup>16</sup> These percentages exclude from property income the minor amount of income from 'other sources', though some of these other sources should be counted as property income.

dividends; <sup>17</sup> nothing has been said about the distribution of rent paid by income groups.

Further study of both rent paid and rent received data from the Minnesota and Consumer Purchases Studies suggests that a rise in rents would transfer income from middle income groups to both very low and relatively high income groups. For Minnesota, at least, the transfer to the low income groups seems considerably larger than the transfer to the high income groups. However, these results are exceedingly tentative.

#### 4 CONCLUSION

The preceding sections emphasize the significance of these studies in demonstrating how little we really know about the personal distribution of income or the relation between the functional and personal distributions. The emphasis on the negative rather than the positive contributions reflects the belief that skepticism about these questions is especially important at present. The growing role of government in economic affairs and the growing tendency to use legislation to improve the lot of special groups in society is combined with a greatly increased emphasis on the distribution of income. Economists and laymen alike are inclined to attach great significance to the income-distributional effects of various governmental measures, and to think that these can be determined easily and without detailed investigation. The studies in this volume have little bearing on the first step; they point clearly to dangers in the second.

It is, of course, not enough simply to say that it is difficult to trace the distributional effects of policy measures. The challenge to investigators of the personal distribution of income is to provide a body of tested knowledge and techniques of analysis that will enable definite inferences to be drawn with reasonable confidence about the effects of various economic changes on the distribution of income. The studies in this book provide neither

<sup>17</sup> Dwight Yntema estimates that residential rents account for some 50 to 60 percent of gross rents received by individuals, and farm rents for some 10 to 20 percent; and that over three-quarters of gross residential rents are paid to individuals, and something less than one-quarter to business concerns. (*Survey of Current Business*, March 1946, pp. 16-20, Table 2.)



the tested knowledge nor the techniques. But they do show, even if only roughly, how these will have to be sought and what problems will arise in seeking them; they do give some idea what the final product will look like; and they do furnish a few parts for the final product—in all, no mean contribution.

MILTON FRIEDMAN