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## CHAPTER 2

### Families in the Sample of Identical Taxpayers

#### A HOW THE FAMILIES WERE SELECTED

SOME PERSONS are required to file income tax returns year after year throughout a substantial part of their lives. Others only occasionally receive enough income to be taxable. A variety of circumstances (e.g., death, moving in or out of the state, attainment of majority) not directly connected with income determine whether a person files an income tax return in Wisconsin for a given year. This study is concerned only with families that reported income for each year 1929-35.

A 50 percent sample of families that filed consecutive returns for the seven years was selected from Wisconsin Tax Commission files. Every second file containing a complete set of returns for the period was transcribed and recorded on punched cards. The clerical labor involved in tabulating the returns of the 130,000 families selected was so great that the sample was reduced to 5 percent by including only those taxpayers in the original sample who had been assigned a serial number terminating with the digit 3.

While the method of selecting the sample was such that it should yield a random sample of taxpayers filing consecutive returns 1929-35, it could hardly be expected to be representative of all taxpayers. For example, young persons filing for the first time after 1929 (and hence excluded from the sample) are likely

to have smaller incomes than those who have accumulated some experience and reputation. In this Chapter we examine in some detail the differences in the income characteristics, marital status, and geographic distribution of consecutive and nonconsecutive filers. The several peculiarities of the Wisconsin tax law and its administration that affected the number of consecutive filers and their characteristics are discussed below.

Confining a study of changes in income during a period to an identical population has both advantages and disadvantages. Its most obvious advantage is to eliminate the effects of a changing population. We are studying how certain characteristics of a particular population changed during a specific period, and changes in *characteristics* are most easily determined and measured if they are not mixed with simultaneous changes in the *population* to which the data relate. However, the fact that a sample of consecutive filers represents the universe in one year, gives no assurance that it will be representative in other years. The concept of consecutive filers tends to eliminate both the extremely low and the extremely high age groups. Since persons under 18 years are not required to file, any person who has filed returns for seven consecutive years will be at least 25 years old at the end of the period. And persons dying during the period are automatically eliminated from the consecutive filer category. Similarly, persons moving into or out of the state, persons whose earning capacity reached taxable levels for the first time during the period, persons retiring to live on nontaxable income, and (under some circumstances) persons changing residence or occupation tend to be eliminated.

While these tendencies limit the applicability of conclusions drawn from a study of consecutive filers, they do not preclude significant conclusions. In fact, the absence of changes in the population studied make it possible to use techniques otherwise inapplicable.

## B THE BASIC TABULATIONS

Two series of tabulations were prepared from the returns of those included in the 5 percent sample of consecutive filers. The

first consists of individual returns just as they were filed and is in a form comparable with similar tables prepared for all returns filed for 1929 and 1935, and for a sample for 1934. Individual returns are classified by size of both net taxable and economic income. For 1929 and 1935 frequency distributions of the marital status characteristics were also prepared, enabling us to compare directly the characteristics of consecutive filers with those of all taxpayers.

To study changes in income from one year to another, returns filed individually by married couples had to be put on a consistent basis. This adjustment, made more urgent by the change in policy after 1932 that removed the privilege of combining the incomes of husband and wife on a joint return and rendered the filing of separate returns mandatory, was accomplished by adding the income of husband and wife when each reported separately, and classifying them as a family unit by their combined income.<sup>1</sup> Tabulations were then prepared cross-classifying (1) the income in each year 1930-35 with the 1929 income; (2) the income in each year 1929-34 with the 1935 income; and (3) the income in each pair of consecutive years. In making these tabulations, the data for each of the seven years 1929-35 had to be gathered on one mechanical tabulating card. Only two income items could be put on one card. Four cards, each containing one of the following pairs of items, were prepared for each family: net taxable income and wages; interest and dividends; business profits and net rents; and capital gains and capital losses. The family's economic income classification was also punched on the cards containing net taxable income and wages, and interest and dividends.<sup>2</sup> Both items on the same card could be classified by

<sup>1</sup> This change in policy followed the decision in *Hoeper vs. Tax Commission*, 284 U. S. 286, discussed below.

After this adjustment, the distribution is said to be on a family, rather than an individual, basis.

<sup>2</sup> It was impracticable to show the economic income classification on the other two cards since the annual tabulating cards from which these summary cards (for seven year periods) were prepared were available only when the family reported business profits, net rents, royalties, capital gains, value of merchandise, fiduciary income, or 'all other income'. If a person reported income from an item on the annual card containing these items in only 6 of the 7 years, his economic income classification for the other year was recorded as zero. Different treatment would have required a costly hand operation.

either item; however, an item on one card could not be classified by an item that appeared only on another card. For example, dividends could be tabulated by interest received, but not by capital gains.

It is the tabulations of the seven year income histories of the 13,000 families in the sample of consecutive filers with which this study is mainly concerned. To understand the differences between the income characteristics of consecutive and nonconsecutive filers, tabulations of individual returns had to be used, since they are in a form directly comparable with the tabulations of all returns for 1929 and 1935.

### C AVERAGE INCOME REPORTED

The average income of consecutive filers tends to be larger than that of all taxpayers; the difference is greater in 1929 than in 1934 or 1935 (Table 1). Also most income items tend to show differences in the same direction. The exceptions are in the types of income infrequently received, and are not consistent for all three years for which comparison can be made. On the whole, differences in net taxable income are smaller than in total income, because the average deductions claimed by consecutive filers were also larger.

### D DISTRIBUTION OF INCOMES

When the distribution of the net taxable income of all taxpayers is compared with the distribution for those included in the sample of identical taxpayers, by means of Lorenz curves (Chart 1), the 1929 net taxable income of consecutive filers is more equally distributed than that of all taxpayers, but the reverse is true for 1934 and 1935. For each of the three years the differences are relatively small, and in no case is there clear evidence that the curves for all taxpayers and for consecutive filers cross, although the relative positions of the top 5 percent of the 1929 curves are doubtful. The differences are smallest in 1929 and largest in 1935. The change in the position of the curves from

**TABLE I**  
**Average Receipt and Deduction**  
**Sample of Identical Taxpayers and All Returns, 1929, 1934, and 1935**

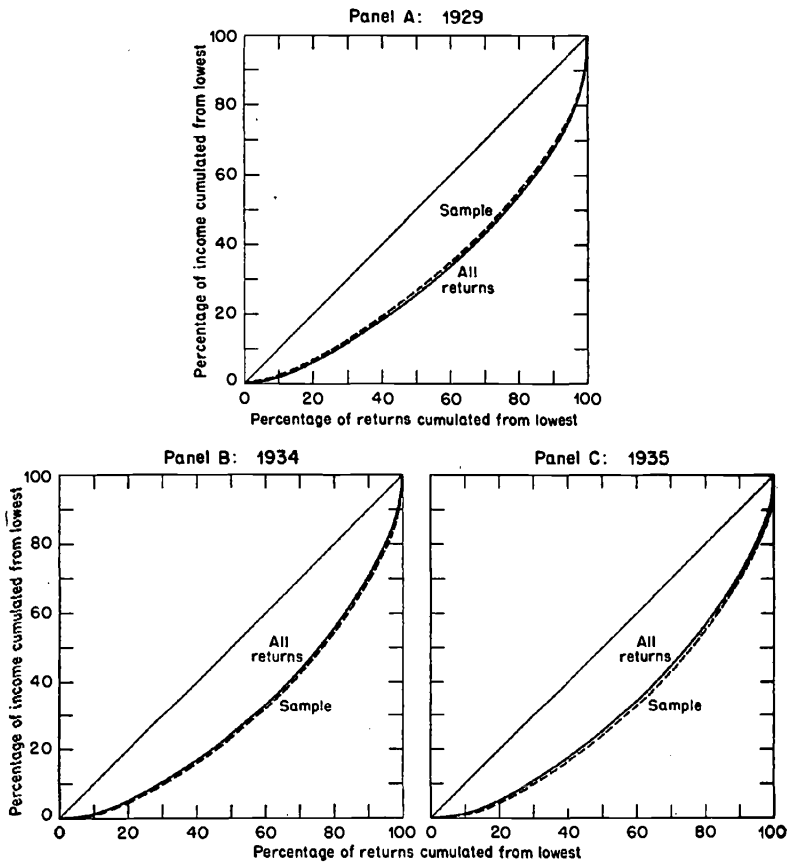
|                                 | S A M P L E |         |         | A L L R E T U R N S |         |         | R A T I O O F S A M P L E<br>T O A L L R E T U R N S |       |       |
|---------------------------------|-------------|---------|---------|---------------------|---------|---------|--|-------|-------|
|                                 | 1929        | 1934    | 1935    | 1929                | 1934    | 1935    | 1929   | 1934  | 1935  |
| Wages & salaries                | \$2,095     | \$1,418 | \$1,528 | \$1,868             | \$1,308 | \$1,429 | 1.122  | 1.084 | 1.069 |
| Interest received               | 686         | 476     | 459     | 465                 | 386     | 377     | 1.475  | 1.233 | 1.218 |
| Dividends received              | 1,051       | 475     | 433     | 933                 | 398     | 410     | 1.126  | 1.193 | 1.056 |
| Business profits                | 2,187       | 1,394   | 1,267   | 1,756               | 1,199   | 1,330   | 1.245  | 1.057 | 1.048 |
| Net rents                       | 525         | 300     | 322     | 506                 | 311     | 314     | 1.038  | 0.965 | 1.025 |
| Capital gains                   | 3,105       | 1,553   | 1,564   | 3,137               | 932     | 1,148   | 0.990  | 1.666 | 1.362 |
| Royalties, copyrights & patents | 2,092       | 2,728   | 178     | 1,370               | 793     | 830     | 1.527  | 3.440 | 0.214 |
| Partnership profits             | 2,447       | 1,553   | 1,723   | 2,400               | 1,437   | 1,584   | 1.020  | 1.081 | 1.088 |
| Fiduciary income                | 2,398       | 814     | 776     | 2,020               | 1,270   | 1,165   | 1.187  | 0.641 | 0.666 |
| Value of merchandise            | a           | 265     | a       | 306                 | 267     | 268     | b  | 0.993 | b     |
| All other income                | 369         | 281     | 317     | 388                 | 238     | 280     | 0.951  | 0.976 | 1.132 |
| Rent losses                     | -271        | -176    | -186    | -220                | -207    | -195    | 1.232  | 0.850 | 0.954 |
| Other negative income           | 0           | -1,248  | -68     | -451                | -972    | -1,322  | 0  | 1.284 | 0.051 |
| Total Income                    | 2,850       | 1,652   | 1,786   | 2,371               | 1,466   | 1,607   | 1.202  | 1.127 | 1.111 |
| Capital losses                  | 4,322       | 2,997   | 1,898   | 2,919               | 2,096   | 1,951   | 1.481  | 1.239 | 0.973 |
| Income taxes paid               | 123         | 72      | 115     | 121                 | 58      | 96      | 1.017  | 1.241 | 1.198 |
| Interest paid                   | 404         | 280     | 262     | 369                 | 273     | 253     | 1.095  | 1.026 | 1.036 |
| Donations                       | 72          | 46      | 54      | 59                  | 44      | 55      | 1.220  | 1.045 | 0.982 |
| Dividends deductible            | 1,222       | 483     | 439     | 1,129               | 535     | 519     | 1.082  | 0.903 | 0.846 |
| Business losses                 | 1,021       | 1,140   | 1,255   | 1,016               | 789     | 750     | 1.005  | 1.445 | 1.673 |
| Partnership losses              | 1,134       | 692     | 449     | 982                 | 627     | 565     | 1.155  | 1.104 | 0.795 |
| Other expenses & deductions     | 520         | 360     | 365     | 498                 | 363     | 352     | 1.044  | 0.992 | 1.037 |
| Net Taxable Income              | 2,317       | 1,389   | 1,512   | 1,997               | 1,260   | 1,390   | 1.160  | 1.102 | 1.088 |
| Net Statutory Losses            | 4,960       | 2,490   | 1,763   | 2,784               | 1,809   | 1,778   | 1.782  | 1.376 | 0.992 |

a Number of recipients not shown in basic tables.

b Data for Sample of Identical Taxpayers not available.

1929 to 1934-35 with reference to the line of equal distribution is greater than the changes in the size of the differences between the two curves for a single year.

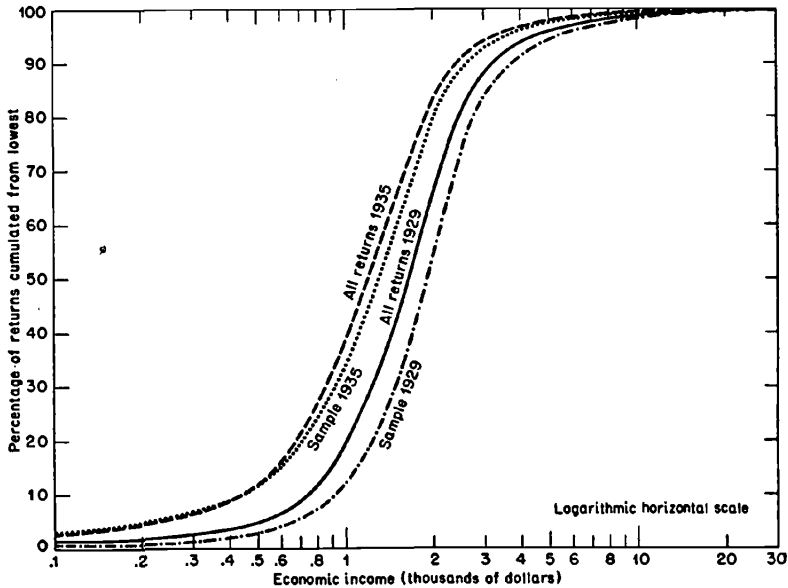
CHART 1  
**Lorenz Curves for the Distribution of Net Taxable Income**  
**Sample of Identical Taxpayers and All Returns, 1929, 1934 and 1935**



Since the amount of economic income was not tabulated, but was used merely as a means of classifying returns, Lorenz curves for economic income cannot be constructed. The distributions of economic income for the two groups of taxpayers can be compared, however, by means of ogives, which show the returns as percentages of all returns cumulated from the lowest and income (in absolute terms) on a semi-logarithmic scale.

The 1929 ogive for consecutive filers lies well to the right of the corresponding curve for all taxpayers, indicating that a smaller percentage of low incomes were received by consecutive filers (Chart 2). The differences between the two 1935 curves are less marked; in fact, the curves become indistinguishable below \$400 and above \$10,000. It is the higher incomes of the 90 percent of the consecutive filers between these two levels that are mainly responsible for the higher average incomes of this group. The distributions by both economic income (Chart 2) and average income (Table 1) indicate that the returns of consecutive filers are more like those of all taxpayers in 1935 than in earlier years.

CHART 2  
Cumulative Percentage Distribution of Returns  
by Size of Economic Income  
Sample of Identical Taxpayers and All Returns, 1929 and 1935



Support for this conclusion is found in the important change in the list of persons required to file tax returns in Wisconsin. Reducing the number of persons who file tends to reduce the number of nonconsecutive filers during later years. To cut administrative expenses in 1932-33 the income tax assessors screened their mailing lists to eliminate names of persons thought



unlikely to be taxable in the years immediately following.<sup>3</sup> Many who were thereby excused from filing would otherwise have been consecutive filers. Their returns for 1929, but not for 1935, are on file and are counted among the nonconsecutive filers for the earlier year. Presumably their names were eliminated because their income characteristics differed from those of persons required to continue filing. Consequently, the income characteristics of consecutive filers can be expected to coincide with those of nonconsecutive filers more nearly in 1935 than in 1929. Conversely, an extension of coverage to include groups not previously filing could be expected to cause a greater divergence between the characteristics of consecutive and nonconsecutive filers in the terminal than in the initial year of the period studied.

Since tabulations distributing various types of receipt by their own size are available only on a family return basis for consecutive filers, the data are not strictly comparable with those for all returns, which are on an individual basis. Combining the incomes of husband and wife to arrive at 'family' income is of much less consequence for 1929 than for 1934 and 1935, since joint returns were prohibited after 1932 (Table 2).<sup>4</sup> The family data in Table 2 are also affected to an unknown degree by a mechanical difficulty in tabulation: to condense the data so that they could be punched on a single card the unit digit was dropped and amounts less than \$10 were omitted. Consequently, receipts often reported in amounts of less than \$10 are entirely absent from the family tabulation. The effects of this omission are more marked in the number of recipients than in the amount of income, and average income is, in consequence, somewhat higher than it would be had small receipts been retained.<sup>5</sup>

<sup>3</sup> The number of returns filed decreased from 476,173 in 1929 to 417,830 in 1934 and 425,481 in 1935. While we do not have direct knowledge of the procedures used in screening the mailing lists, occupation was apparently one criterion since the number of farmers filing decreased from 31,157 in 1929 to 10,438 in 1935.

<sup>4</sup> *Hoeper vs. Tax Commission, op. cit.*

<sup>5</sup> In 1929 among those included in the sample of identical taxpayers were 85 married couples that filed separate returns; this would be the maximum reduction in the number of receipts attributable to combining incomes of husbands and wives in that year. Table 2 shows 232 fewer family units than individuals reporting dividends and 405 fewer reporting interest. The differences must be attributed to the omission of receipts of \$10 or less. The evidence for 1935 is not conclusive since the reduction in each case was less than 1,075, the number of married couples filing separate returns in that year.

TABLE 2

Average Size of Selected Receipts on Individual and Family Basis  
Sample of Identical Taxpayers, 1929, 1934, and 1935

|                  | INDIVIDUAL BASIS <sup>a</sup> |                           | FAMILY BASIS <sup>b</sup> |                           | RATIO OF FAMILY<br>TO INDIVIDUAL |                 |
|------------------|-------------------------------|---------------------------|---------------------------|---------------------------|----------------------------------|-----------------|
|                  | No. Re-<br>porting            | Av.<br>Amount<br>Reported | No. Re-<br>porting        | Av.<br>Amount<br>Reported | No. Re-<br>porting               | Av.<br>Reported |
|                  |                               |                           | <i>1</i>                  | <i>2</i>                  |                                  |                 |
|                  |                               |                           | <i>9</i>                  | <i>9</i>                  |                                  |                 |
| Wages & salaries | 10,944                        | \$2,095                   | 10,868                    | \$2,106                   | .993                             | 1.005           |
| Interest         | 3,794                         | 686                       | 3,389                     | 764                       | .893                             | 1.114           |
| Dividends        | 2,959                         | 1,051                     | 2,727                     | 1,136                     | .922                             | 1.081           |
| Business profits | 1,974                         | 2,187                     | 1,970                     | 2,187                     | .998                             | 1.000           |
| Net rents        | 1,949                         | 525                       | 1,920                     | 529                       | .985                             | 1.008           |
| Capital gains    | 642                           | 3,105                     | 624                       | 3,189                     | .972                             | 1.027           |
| Capital losses   | 444                           | 4,322                     | 435                       | 4,409                     | .980                             | 1.020           |
|                  |                               |                           | <i>1</i>                  | <i>3</i>                  |                                  |                 |
|                  |                               |                           | <i>9</i>                  | <i>4</i>                  |                                  |                 |
| Wages & salaries | 11,179                        | 1,418                     | 10,488                    | 1,506                     | .938                             | 1.062           |
| Interest         | 3,320                         | 476                       | 2,823                     | 555                       | .850                             | 1.166           |
| Dividends        | 2,895                         | 475                       | 2,462                     | 554                       | .850                             | 1.166           |
| Business profits | 2,035                         | 1,267                     | 2,011                     | 1,281                     | .988                             | 1.011           |
| Net rents        | 1,951                         | 300                       | 1,883                     | 306                       | .965                             | 1.020           |
| Capital gains    | 320                           | 1,553                     | 302                       | 1,641                     | .944                             | 1.057           |
| Capital losses   | 596                           | 2,597                     | 563                       | 2,747                     | .945                             | 1.058           |
|                  |                               |                           | <i>1</i>                  | <i>3</i>                  |                                  |                 |
|                  |                               |                           | <i>9</i>                  | <i>5</i>                  |                                  |                 |
| Wages & salaries | 11,130                        | 1,528                     | 10,430                    | 1,642                     | .937                             | 1.075           |
| Interest         | 3,342                         | 459                       | 2,816                     | 539                       | .843                             | 1.174           |
| Dividends        | 2,996                         | 433                       | 2,538                     | 503                       | .847                             | 1.162           |
| Business profits | 2,069                         | 1,394                     | 2,051                     | 1,402                     | .991                             | 1.006           |
| Net rents        | 2,080                         | 322                       | 1,994                     | 330                       | .959                             | 1.025           |
| Capital gains    | 495                           | 1,564                     | 450                       | 1,715                     | .909                             | 1.097           |
| Capital losses   | 620                           | 1,898                     | 576                       | 2,039                     | .929                             | 1.074           |

<sup>a</sup> *Wisconsin Individual Income Tax Statistics: Characteristics of Sample of Identical Taxpayers.*

<sup>b</sup> *Ibid.: Changes in Income of Identical Taxpayers, 1929-1935.*

The order in which the Lorenz curves for the various types of receipt diverge from the line of equal distribution is the same for both the family data for consecutive filers and the individual data for nonconsecutive filers, i.e., wages and salaries and net taxable income are most equally distributed, dividends and capital gains least in both sets of data. As shown in Chapter 3 of this Part and also Part II, this pattern tends to persist from one year to another, since the differences between the distributions of the various types of receipt tend to be larger than the year to year variations for a single type of receipt.

Measured at the Rich-Poor intersector there are small differences between the curves for consecutive and nonconsecutive

filers.<sup>6</sup> Wages are more equally distributed and interest less among consecutive than among all filers in both terminal years. Rents for 1929, capital gains for 1935, and dividends for 1929 show much the same degree of equality for both consecutive and nonconsecutive filers. Business income is more equally distributed among consecutive filers in 1929 and less in 1935; capital gains in 1929 and dividends in 1935 are more equally distributed among nonconsecutive returns. These differences are so small that little importance can be attached to them in view of the limitations of the data and their failure to meet the requirements of strict comparability.

### E COMPOSITION OF INCOME

As shown in Part II, substantial changes in the composition of income are associated with changes in income level. Consequently, we may expect the composition of the higher average incomes of consecutive filers to differ from that of all taxpayers.

Wages and salaries is the one item that is a smaller percentage of the total income of consecutive filers than of all taxpayers in all three years studied (Table 3). All other items are a larger percentage in at least one year. All deduction items tend to be a larger percentage of consecutive filers' than of all taxpayers' total income.

Differences in the behavior of specific items, especially those not constituting large portions of total income, are disturbing, but cannot readily be investigated. By grouping income items into those predominantly earnings from services and those predominantly from property (Table 3), their influence is minimized. Though rough, this classification serves to emphasize the

<sup>6</sup> Since the shape of the Lorenz curves can only be approximated for the lowest group of some items, the Rich-Poor intersector—the line perpendicular to and bisecting the line of equal distribution (a line connecting the coordinates 50, 50, and 100, 0) — is used as the measure of equality. The point at which this line intersects the curve is read along the X axis, i.e., in terms of the cumulated percentage of persons below the point of intersection, giving a scale ranging from 50 (absolute equality) to 100 (absolute inequality) which can be translated to a scale ranging from 0.0 to 1.0 by the formula  $.02(P - 50)$ , where P is the percentage of persons with incomes below the Rich-Poor intersector. See D. B. Yntema, *Measures of Inequality*, *Journal of the American Statistical Association*, Vol. 28 (1933), pp. 423-33.

TABLE 3

Composition of Income  
Sample of Identical Taxpayers and All Returns, 1929, 1934, and 1935

|                                 | S A M P L E |        |        | P E R C E N T A G E S O F T O T A L I N C O M E |        |        | A L L R E T U R N S |       |       | R A T I O O F S A M P L E<br>T O A L L R E T U R N S |       |       |
|---------------------------------|-------------|--------|--------|---|--------|--------|---------------------|-------|-------|--|-------|-------|
|                                 | 1929        | 1934   | 1935   | 1929  | 1934   | 1935   | 1929                | 1934  | 1935  | 1929   | 1934  | 1935  |
| Wages & salaries                | 60.55       | 67.15  | 67.29  | 63.72   | 71.26  | 71.39  | .950                | .942  | .943  | .942   | .942  | .943  |
| Business profits                | 11.40       | 10.93  | 11.30  | 11.46   | 10.68  | 10.84  | .995                | 1.023 | 1.042 | .995   | 1.023 | 1.042 |
| Partnership profits             | 2.84        | 2.18   | 2.34   | 2.75  | 2.17   | 2.36   | 1.033               | 1.005 | .992  | 1.033  | 1.005 | .992  |
| Value of merchandise            | .52         | .75    | .67    | .94   | .74    | .65    | .553                | 1.014 | 1.031 | .553   | 1.014 | 1.031 |
| All other income                | .99         | 1.20   | 1.24   | 1.14  | 1.30   | 1.18   | .868                | .923  | 1.051 | .868   | .923  | 1.051 |
| Income from Earnings            | 76.30       | 82.21  | 82.84  | 80.01   | 86.15  | 86.42  | .954                | .954  | .959  | .954   | .954  | .959  |
| Interest received               | 6.88        | 6.71   | 6.01   | 5.07  | 5.15   | 4.44   | 1.357               | 1.303 | 1.354 | 1.357  | 1.303 | 1.354 |
| Dividends received              | 8.21        | 5.88   | 5.09   | 6.67  | 4.49   | 4.25   | 1.231               | 1.298 | 1.198 | 1.231  | 1.298 | 1.198 |
| Net rents                       | 5.27        | 2.48   | 2.63   | 2.57  | 2.37   | 2.25   | 1.054               | 1.046 | 1.169 | 1.054  | 1.046 | 1.169 |
| Capital gains                   | .04         | 2.7    | .01    | .03   | .07    | .06    | 1.333               | 3.857 | .167  | 1.333  | 3.857 | .167  |
| Royalties, copyrights & patents | .59         | .39    | .38    | .52   | .66    | .60    | 1.135               | .591  | .633  | 1.135  | .591  | .633  |
| Fiduciary income                | 23.70       | 17.79  | 17.16  | 19.99   | 13.85  | 13.58  | 1.186               | 1.285 | 1.264 | 1.186  | 1.285 | 1.264 |
| Income from Property            | 100.00      | 100.00 | 100.00 | 100.00  | 100.00 | 100.00 |                     |       |       |  |       |       |
| Total Income                    | 100.00      | 100.00 | 100.00 | 100.00  | 100.00 | 100.00 |                     |       |       |  |       |       |
| Business losses                 | .55         | 1.53   | 1.58   | .77   | 1.04   | .87    | .714                | 1.471 | 1.816 | .714   | 1.471 | 1.816 |
| Partnership losses              | .16         | .23    | .11    | .14   | .18    | .14    | 1.143               | 1.278 | .786  | 1.143  | 1.278 | .786  |
| Interest paid                   | 4.26        | 4.15   | 3.71   | 4.14  | 3.77   | 3.24   | 1.029               | 1.101 | 1.145 | 1.029  | 1.101 | 1.145 |
| Capital losses                  | 5.07        | 6.58   | 4.63   | 3.31  | 4.93   | 4.26   | 1.532               | 1.335 | 1.087 | 1.532  | 1.335 | 1.087 |
| Income taxes paid               | 1.68        | .94    | 1.54   | 1.52  | .71    | 1.22   | 1.105               | 1.324 | 1.262 | 1.105  | 1.324 | 1.262 |
| Donations                       | 1.26        | 1.21   | 1.35   | 1.05  | 1.17   | 1.17   | 1.200               | 1.034 | 1.154 | 1.200  | 1.034 | 1.154 |
| Dividends deductible            | 5.23        | 2.27   | 2.09   | 4.37  | 2.24   | 2.12   | 1.197               | 1.013 | .986  | 1.197  | 1.013 | .986  |
| Other expenses & deductions     | 2.13        | 2.47   | 2.53   | 2.05  | 2.48   | 2.49   | 1.039               | .996  | 1.016 | 1.039  | .996  | 1.016 |
| Net Taxable Income              | 81.29       | 84.05  | 84.67  | 84.22   | 85.98  | 86.52  | .965                | .978  | .979  | .965   | .978  | .979  |
| Net Statutory Losses            | -1.64       | -3.45  | -2.21  | -1.57   | -2.50  | -2.03  | 1.044               | 1.380 | 1.089 | 1.044  | 1.380 | 1.089 |

prevalence of property income in the returns of consecutive as compared with all filers. It is especially valuable when used, as in Table 4, to determine whether the differences in the composition of income between consecutive filers and all taxpayers persist at all income levels or whether they are due only to the higher average incomes of consecutive filers.

At both ends of the distribution consecutive filers receive a relatively larger proportion of income from property than do all filers (i.e., for economic incomes below \$3,000 and above \$100,000) in each of the three years. In the \$3,000-15,000 range they tend to receive a relatively larger share of income from earnings. For 1929 and 1935 their income from earnings is relatively less in each of the six economic income groups below \$3,000; more in seven of the nine groups between \$3,000 and \$15,000; and less in four of the five groups above \$15,000 than that of all taxpayers. The data for 1934 are not as clear cut: in only four of

TABLE 4  
Income from Earnings as Percentage of Total Income  
Classified by Economic Income

Sample of Identical Taxpayers and All Returns, 1929, 1934, and 1935

| ECONOMIC<br>INCOME | 1 9 2 9 |                | 1 9 3 4 |                | 1 9 3 5 |                |
|--------------------|---------|----------------|---------|----------------|---------|----------------|
|                    | Sample  | All<br>Returns | Sample  | All<br>Returns | Sample  | All<br>Returns |
| \$0- 499           | 61.03   | 62.18          | 70.89   | 74.95          | 64.47   | 70.27          |
| 500- 999           | 81.69   | 85.94          | 87.43   | 90.72          | 86.45   | 90.15          |
| 1,000- 1,499       | 90.69   | 91.60          | 92.13   | 93.16          | 92.05   | 93.45          |
| 1,500- 1,999       | 92.29   | 93.07          | 91.92   | 93.07          | 92.66   | 93.85          |
| 2,000- 2,499       | 91.69   | 92.23          | 90.23   | 91.25          | 91.41   | 92.31          |
| 2,500- 2,999       | 90.29   | 90.35          | 88.19   | 88.63          | 88.52   | 89.17          |
| 3,000- 3,499       | 88.54   | 87.73          | 83.99   | 85.95          | 87.83   | 86.74          |
| 3,500- 3,999       | 86.00   | 84.99          | 82.98   | 83.99          | 81.99   | 85.02          |
| 4,000- 4,499       | 83.09   | 82.35          | 81.42   | 83.60          | 81.99   | 82.67          |
| 4,500- 4,999       | 81.00   | 80.67          | 84.52   | 80.62          | 76.68   | 81.73          |
| 5,000- 5,999       | 72.92   | 77.53          | 87.66   | 80.03          | 82.47   | 79.99          |
| 6,000- 6,999       | 74.27   | 74.26          | 84.72   | 76.10          | 83.24   | 78.06          |
| 7,000- 7,999       | 64.45   | 70.90          | 77.76   | 74.41          | 80.66   | 75.65          |
| 8,000- 8,999       | 70.46   | 68.40          | 66.24   | 72.05          | 77.00   | 68.14          |
| 9,000- 9,999       | 76.21   | 67.48          | 77.80   | 72.44          | 87.62   | 68.09          |
| 10,000-14,999      | 66.86   | 61.83          | 70.45   | 65.41          | 70.76   | 65.68          |
| 15,000-19,999      | 55.52   | 55.62          | 61.05   | 59.09          | 55.44   | 58.10          |
| 20,000-24,999      | 44.46   | 50.68          | 68.47   | 57.92          | 59.34   | 58.67          |
| 25,000-49,999      | 52.04   | 42.44          | 23.65   | 45.33          | 21.71   | 41.83          |
| 50,000-99,999      | 24.14   | 29.75          | 51.74   | 27.36          | 23.29   | 27.00          |
| 100,000 & over     | .46     | 12.50          | 3.33    | 12.53          |         | 10.24          |
| Total              | 76.30   | 80.01          | 82.21   | 86.15          | 82.97   | 86.42          |

Earnings include wages and salaries, business and partnership profits, value of merchandise, and all other income.

the nine groups between \$3,000 and \$15,000; and in only two of the five groups above \$15,000 do consecutive filers receive relatively smaller earnings than all taxpayers. Apparently, persons dependent upon small property incomes are more likely to be required to file returns year after year than persons dependent upon small earnings. Earnings constitute a relatively larger part of the total incomes of consecutive filers than of all taxpayers in income groups for which business and partnership profits are the largest source of income (see Part II).

Two characteristics of Table 5 require examination. The first is the frequency with which an item deviates in a given direction from the norm, i.e., from the pattern characteristic of all returns. For example, in 1929 wages are a bigger percentage of total income for the sample than for all taxpayers in 9 of the 19 income groups. The other characteristic is the amount of 'blocking', i.e., the tendency for like signs to occur in contiguous groups. Dividends are a greater percentage of total income for the sample than for all returns in the first 7 of the 1935 groups, but in only 2 of the last 12 groups. If an approximately equal number of groups varied in each direction, *and* these variations were randomly distributed throughout the distribution, we would be compelled to conclude that the differences between the composition of income in the two distributions were probably due to sampling errors. A preponderance of one sign, or a noticeable blocking, indicates a consistent bias.

Looking first at 1929 data, recipients of dividends or rents tend to be among the consecutive filers (Table 5). For each of the other 5 items plus deviations about equal minus deviations in number. Nor is the blocking of like signs so marked that much confidence can be placed in it. Business profits tend to be a relatively larger percentage of total income for consecutive filers in the middle brackets, but partnership profits show no such blocking. In 1935 wages and fiduciary incomes were a greater share of the income of consecutive filers than of all taxpayers in only 6 groups. For dividends and rents in 1935 there is considerable blocking at the lower end of the distribution, while business and partnership profits tend to block in the middle of the distribution.

TABLE 5  
Composition of Income in Each Economic Income Group  
Sample of Identical Taxpayers and All Returns, 1929 and 1935

| ECONOMIC<br>INCOME<br>GROUP | WAGES &<br>SALARIES | DIVI-<br>DENDS | BUSINESS<br>PROFITS | PARTNER-<br>SHIP |   |   |   | NET<br>RENTS | CAPITAL<br>GAINS | FIDUCIARY<br>INCOME |
|-----------------------------|---------------------|----------------|---------------------|------------------|---|---|---|--------------|------------------|---------------------|
|                             |                     |                |                     | 1                | 9 | 2 | 9 |              |                  |                     |
| \$0- 499                    | -                   | +              | -                   |                  | + |   | + | -            | -                |                     |
| 500- 999                    | -                   | +              | -                   |                  | + |   | + | +            | +                |                     |
| 1,000- 1,499                | +                   | +              | -                   |                  | 0 |   | + | +            | -                |                     |
| 1,500- 1,999                | +                   | +              | -                   |                  | - |   | + | -            | +                |                     |
| 2,000- 2,499                | +                   | +              | -                   |                  | + |   | - | -            | +                |                     |
| 2,500- 2,999                | +                   | +              | +                   |                  | - |   | + | -            | -                |                     |
| 3,000- 3,499                | -                   | +              | +                   |                  | + |   | + | -            | -                |                     |
| 3,500- 3,999                | -                   | -              | +                   |                  | - |   | - | -            | +                |                     |
| 4,000- 4,499                | +                   | +              | -                   |                  | + |   | - | -            | +                |                     |
| 4,500- 4,999                | +                   | -              | +                   |                  | - |   | + | -            | +                |                     |
| 5,000- 5,999                | -                   | +              | -                   |                  | - |   | + | +            | 0                |                     |
| 6,000- 6,999                | -                   | -              | +                   |                  | + |   | + | +            | -                |                     |
| 7,000- 7,999                | -                   | +              | -                   |                  | - |   | + | +            | -                |                     |
| 8,000- 8,999                | -                   | +              | +                   |                  | + |   | - | -            | -                |                     |
| 9,000- 9,999                | +                   | +              | +                   |                  | - |   | - | -            | -                |                     |
| 10,000-14,999               | +                   | +              | +                   |                  | + |   | + | -            | -                |                     |
| 15,000-19,999               | +                   | +              | -                   |                  | - |   | - | +            | -                |                     |
| 20,000-99,999               | -                   | +              | +                   |                  | + |   | + | +            | +                |                     |
| 100,000 & over              | -                   | -              | -                   |                  | - |   | - | -            | +                |                     |
| Total                       | -                   | +              | -                   |                  | - |   | + | +            | +                |                     |
|                             |                     |                |                     |                  | 1 | 9 | 3 | 5            |                  |                     |
| \$0- 499                    | -                   | +              | +                   |                  |   | - | + | +            | +                |                     |
| 500- 999                    | -                   | +              | +                   |                  |   | - | + | +            | +                |                     |
| 1,000- 1,499                | -                   | +              | +                   |                  |   | + | + | -            | -                |                     |
| 1,500- 1,999                | -                   | +              | -                   |                  |   | - | + | +            | -                |                     |
| 2,000- 2,499                | +                   | +              | -                   |                  |   | - | + | +            | -                |                     |
| 2,500- 2,999                | -                   | +              | +                   |                  |   | + | + | -            | +                |                     |
| 3,000- 3,499                | -                   | +              | +                   |                  |   | + | - | -            | +                |                     |
| 3,500- 3,999                | -                   | -              | -                   |                  |   | + | + | +            | -                |                     |
| 4,000- 4,499                | -                   | -              | -                   |                  |   | + | + | +            | +                |                     |
| 4,500- 4,999                | -                   | +              | -                   |                  |   | - | - | +            | -                |                     |
| 5,000- 5,999                | +                   | -              | -                   |                  |   | + | - | +            | -                |                     |
| 6,000- 6,999                | +                   | -              | +                   |                  |   | - | - | -            | -                |                     |
| 7,000- 7,999                | +                   | -              | +                   |                  |   | - | + | -            | -                |                     |
| 8,000- 8,999                | -                   | -              | +                   |                  |   | + | - | -            | -                |                     |
| 9,000- 9,999                | +                   | -              | -                   |                  |   | + | + | -            | +                |                     |
| 10,000-14,999               | -                   | -              | +                   |                  |   | + | - | -            | -                |                     |
| 15,000-19,999               | -                   | -              | -                   |                  |   | + | - | +            | -                |                     |
| 20,000-99,999               | +                   | +              | +                   |                  |   | - | - | -            | -                |                     |
| 100,000 & over              | -                   | -              | -                   |                  |   | 0 | - | +            | 0                |                     |
| Total                       | -                   | +              | +                   |                  |   | - | + | +            | -                |                     |

A plus sign ( + ) means that the receipt is a greater percentage of the total income in the economic income group for the sample than for all returns. A minus sign ( - ) means the opposite: that the receipt is a greater percentage of the total income in the economic income group for all returns than it is for the sample.

## F PATTERNS OF INCOME

As well as reporting relatively more income from property, consecutive filers tend to report income from more sources and, with a few noteworthy exceptions—e.g., business profits in 1929 and wages in 1934 and 1935—each income receipt is reported by a larger percentage of consecutive filers than of all taxpayers. While data on the income patterns for the sample of consecutive filers are not available, the average number of receipts reported per return and the percentage of all returns reporting specific receipts can be computed from the basic tabulations (Table 6).

TABLE 6

Percentage of Filers Reporting Selected Receipts  
Sample of Identical Taxpayers and All Returns, 1929, 1934, and 1935

|   | 1929         |             | 1934   |             | 1935         |             |
|---|--------------|-------------|--------|-------------|--------------|-------------|
|   | Sample       | All Returns | Sample | All Returns | Sample       | All Returns |
| Wages & salaries                                  | 82.39        | 80.91       | 78.49  | 80.03       | 78.06        | 80.46       |
| Business profits                                  | 14.86        | 15.48       | 14.29  | 13.08       | 14.51        | 13.11       |
| Partnership profits                               | 3.31         | 2.72        | 2.32   | 2.22        | 2.43         | 2.40        |
| Value of merchandise                              | <sup>a</sup> | 7.31        | 4.66   | 4.05        | <sup>a</sup> | 3.89        |
| All other income                                  | 7.70         | 6.99        | 7.09   | 6.62        | 6.98         | 6.79        |
| Interest received                                 | 28.56        | 24.70       | 23.31  | 19.58       | 23.44        | 18.97       |
| Dividends received                                | 22.28        | 16.98       | 20.33  | 16.59       | 21.01        | 16.68       |
| Net rents   | 14.67        | 12.06       | 13.70  | 11.22       | 14.59        | 11.54       |
| Capital gains                                     | 4.83         | 3.88        | 2.25   | 1.75        | 3.47         | 2.78        |
| Royalties, copyrights & patents                   | .05          | .05         | .16    | .14         | .13          | .12         |
| Fiduciary income                                  | .71          | .61         | .80    | .76         | .87          | .83         |
| Av. no. of items reported per return <sup>b</sup> | 1.79         | 1.64        | 1.63   | 1.52        | 1.65         | 1.54        |

<sup>a</sup>Item count not available.

<sup>b</sup>To make years comparable, excludes value of merchandise.

The larger percentage of all taxpayers than of consecutive filers reporting business profits in 1929 indicates that a disproportionately large group of business men and farmers who reported in 1929 did not in 1934-35.<sup>7</sup> The larger percentage of all returns reporting wages in 1934 and 1935, on the other hand, indicates that those either filing irregularly or filing for the first time after 1929 tended to be wage earners.

The differences between the sample and all taxpayers with respect to the percentage of total returns reporting a given item are larger for property items. Since property items tend to be associated with large total incomes this might have been expected 720,719 fewer farmers reported business income in 1935 than in 1929; see note 3.



**TABLE 7**  
**Percentage of Total Returns Reporting Specified Receipts**  
**Sample of Identical Taxpayers and All Returns, 1929 and 1935**

| ECONOMIC INCOME GROUP | WAGES & SALARIES |         | BUSINESS PROFITS |         | INTEREST |         | DIVIDENDS |         | NET RENTS |         | CAPITAL GAINS |         | AV. NO. OF ITEMS REPORTED PER RETURN |         |
|-----------------------|------------------|---------|------------------|---------|----------|---------|-----------|---------|-----------|---------|---------------|---------|--------------------------------------|---------|
|                       | All              |         | All              |         | All      |         | All       |         | All       |         | All           |         | All                                  |         |
|                       | Sample           | Returns | Sample           | Returns | Sample   | Returns | Sample    | Returns | Sample    | Returns | Sample        | Returns | Sample                               | Returns |
| \$0.-499              | 49.81            | 47.99   | 28.14            | 26.69   | 24.71    | 26.71   | 17.11     | 11.85   | 16.73     | 14.47   | 7.60          | 4.81    | 1.55                                 | 1.40    |
| 500.-999              | 75.39            | 75.66   | 16.46            | 17.84   | 22.86    | 20.40   | 12.05     | 8.73    | 11.55     | 8.97    | 2.74          | 1.83    | 1.48                                 | 1.40    |
| 1,000.-1,499          | 84.94            | 84.17   | 12.66            | 13.86   | 22.76    | 19.79   | 12.94     | 9.95    | 9.38      | 7.93    | 2.00          | 1.59    | 1.46                                 | 1.44    |
| 1,500.-1,999          | 87.98            | 87.14   | 11.58            | 12.37   | 23.35    | 20.45   | 14.86     | 12.01   | 13.83     | 10.89   | 1.84          | 2.07    | 1.63                                 | 1.54    |
| 2,000.-2,499          | 87.67            | 87.02   | 12.50            | 12.90   | 25.50    | 23.48   | 18.98     | 16.88   | 13.71     | 14.17   | 3.51          | 3.10    | 1.74                                 | 1.70    |
| 2,500.-2,999          | 83.83            | 84.22   | 15.29            | 15.36   | 30.07    | 29.16   | 25.53     | 23.70   | 16.97     | 16.28   | 4.24          | 4.14    | 1.89                                 | 1.87    |
| 3,000.-3,499          | 79.54            | 80.44   | 18.45            | 18.26   | 37.20    | 34.32   | 35.48     | 31.02   | 19.03     | 17.37   | 8.44          | 6.30    | 2.18                                 | 2.04    |
| 3,500.-3,999          | 77.53            | 76.99   | 21.37            | 21.24   | 34.79    | 38.84   | 37.81     | 37.84   | 23.01     | 18.56   | 8.49          | 8.25    | 2.21                                 | 2.19    |
| 4,000.-4,499          | 77.27            | 74.37   | 23.14            | 23.96   | 47.93    | 43.09   | 54.13     | 45.58   | 19.01     | 18.72   | 8.68          | 11.12   | 2.54                                 | 2.36    |
| 4,500.-4,999          | 67.07            | 72.17   | 26.22            | 24.94   | 44.51    | 46.55   | 48.17     | 48.53   | 24.39     | 19.71   | 11.59         | 12.64   | 2.42                                 | 2.46    |
| 5,000.-5,999          | 70.48            | 70.61   | 23.33            | 24.88   | 57.62    | 51.21   | 59.52     | 55.95   | 28.10     | 20.90   | 17.14         | 15.54   | 2.76                                 | 2.62    |
| 6,000.-6,999          | 70.37            | 69.27   | 26.67            | 25.52   | 54.81    | 53.18   | 63.70     | 60.85   | 28.15     | 22.97   | 12.59         | 17.40   | 2.79                                 | 2.73    |
| 7,000.-7,999          | 68.89            | 70.64   | 26.67            | 25.08   | 66.67    | 58.72   | 77.78     | 67.93   | 20.00     | 21.76   | 28.89         | 21.89   | 3.11                                 | 2.91    |
| 8,000.-8,999          | 69.12            | 65.94   | 25.00            | 26.77   | 64.71    | 60.97   | 75.00     | 69.25   | 19.12     | 21.94   | 23.53         | 25.91   | 3.13                                 | 3.00    |
| 9,000.-9,999          | 61.76            | 69.98   | 23.53            | 23.24   | 52.94    | 65.13   | 54.41     | 76.09   | 17.65     | 21.82   | 16.18         | 27.26   | 3.08                                 | 3.11    |
| 10,000.-14,999        | 75.68            | 71.02   | 23.42            | 21.58   | 63.96    | 67.87   | 76.58     | 78.49   | 22.52     | 24.16   | 27.03         | 31.96   | 3.14                                 | 3.25    |
| 15,000.-19,999        | 85.71            | 73.95   | 12.24            | 17.85   | 79.59    | 76.13   | 87.76     | 87.94   | 16.33     | 25.16   | 30.61         | 40.27   | 3.33                                 | 3.53    |
| 20,000.-24,999        | 57.14            | 71.43   | 25.00            | 19.16   | 85.71    | 79.83   | 89.29     | 90.59   | 35.71     | 24.87   | 50.00         | 41.51   | 3.86                                 | 3.63    |
| 25,000.-49,999        | 69.57            | 75.49   | 30.43            | 16.59   | 86.96    | 83.63   | 100.00    | 92.09   | 39.13     | 22.20   | 60.87         | 51.54   | 4.13                                 | 3.76    |
| 50,000.-99,999        | 84.62            | 81.18   | 7.69             | 9.59    | 100.00   | 87.45   | 100.00    | 93.73   | 23.08     | 23.25   | 69.23         | 61.62   | 4.46                                 | 4.01    |
| 100,000 & over        | 50.00            | 84.67   | 5.11             | 100.00  | 96.35    | 100.00  | 98.54     | 100.00  | 66.67     | 22.63   | 83.33         | 83.21   | 4.67                                 | 4.35    |
| Deficit               | 16.84            | 17.22   | 11.58            | 14.36   | 32.63    | 22.58   | 22.11     | 16.64   | 27.37     | 20.29   | 15.79         | 11.00   | 1.36                                 | 1.11    |
| All Groups            | 82.39            | 80.91   | 14.86            | 15.48   | 28.56    | 24.70   | 22.28     | 16.98   | 14.67     | 12.06   | 4.83          | 3.88    | 1.79                                 | 1.64    |



because of the larger average incomes of consecutive filers. But Table 7 indicates that this is not a sufficient explanation. In only 5-9 of the 22 groups do a larger percentage of all taxpayers than of consecutive filers report one of the four property items covered. The groups in which this occurs tend to be in the middle of the distribution, i.e., \$8,000-20,000, but they are not solidly enough blocked to warrant the conclusion that there are significant differences between groups. Moreover, in only 4 of the 1929 groups and in only 6 of the 1935 groups are, on the average, more items reported per return by all taxpayers than by consecutive filers.

### G MARITAL STATUS

The decrease in the number of returns filed 1929-35 was accompanied by a considerable shift in the marital status, sex, and dependency characteristics of all taxpayers. These characteristics are usually undergoing change, anyway, but the modification in administrative procedures occasioned by the decision in *Hoeper vs. Tax Commission* caused many persons to file a different type of return than they would otherwise.<sup>8</sup> The simultaneous occurrence of these changes makes it difficult to isolate and treat them separately.

In selecting the sample, some changes in family membership were ignored. Persons who were single in 1929 but married between 1929 and 1935 were included and their incomes combined as if they had constituted a family throughout the period. Divorces and separations were probably ignored and the individual incomes combined in a single 'family' return. Children reaching the age of 18 and filing their own returns were not included in the family, however.<sup>9</sup>

Before the *Hoeper vs. Tax Commission* decision, married

<sup>8</sup> The analysis in this Section is based on *Wisconsin Individual Income Tax Statistics: Characteristics of Sample of Identical Taxpayers*, Table 3, p. A-85, 1929, Vol. I, Table J, p. 21, and 1935, Vol. I, Table J, p. 18.

<sup>9</sup> The reasons were mechanical. Selection was based upon files of returns, and their contents are largely determined by administrative convenience. It has proved easier for the assessors to place the returns of single persons who subsequently married in one file than to cross-reference returns. In any other system families formed or dissolved during the period would have been excluded. The effects of this system on the income distributions are not known,

couples were permitted to file either joint or separate returns, but whichever they did their incomes were combined for the purpose of computing taxes. After the decision the Tax Commission ruled that when both spouses have incomes, each must file a return. Since many such couples had previously filed a joint return, this ruling multiplied the number of returns filed.<sup>10</sup>

The net changes within the sample of identical taxpayers from 1929 to 1935, the two years for which data on marital status are available, were: (1) an increase of 976 in total returns filed; (2) an increase of 760 in the number of married couples and of 116 in the number of single family heads; and (3) a decrease of 937 in the number of single persons who were not heads of families. It was not possible to code 86 of the 1935 returns, 47 more than it had been impossible to code in 1929.<sup>11</sup> The greater number of women filing in 1935 than in 1929 is almost completely accounted for by the larger number of separate returns. Eighteen fewer men filed returns in 1935 than in 1929. The absolute decrease of 245 in the number of dependents claimed is not to be explained by the increase in the number of young married couples. The shifts were apparently from single persons to married couples and to single family heads, accompanied by a decrease in the number of dependents.

More consecutive filers were married, and more of them filed either joint or separate returns, but they had fewer dependents than all taxpayers. A relatively larger proportion of single family heads with only one dependent (which qualified them for 'head of family' status) filed consecutive returns. The two sexes are represented among consecutive filers in about the same ratio as among all taxpayers, although males are slightly more numerous in the sample.

This pattern of variation persists throughout the income range, and is more marked in 1935 than in 1929. A marital status group over-represented in the sample tends to be over-represented

<sup>10</sup> The ruling was not completely effective and as late as 1935 more than 3,157 married couples filed joint returns. Returns were coded as joint returns only when there was positive evidence that income received by both husband and wife was included on the return. In addition, there may have been returns on which the husband reported his wife's income without identifying it as such.

<sup>11</sup> At the time of transcribing, the 1929 returns had been audited more thoroughly than the 1935 returns.

in each economic income group, although not necessarily by the same percentage. More important, group to group differences are without any discernible pattern, even when differences in the distribution of income in each group are taken into account.

## H GEOGRAPHIC DISTRIBUTION

Although the decrease in returns filed 1929-35 and the administrative change which required married couples to file separate returns tend to make distributions by county difficult to interpret, such evidence as we have on the distribution of consecutive and nonconsecutive filers by county does not indicate any systematic bias in coverage. We have no data on the distribution of consecutive filers by size of community or by geographic areas other than county.

The 12 percent decrease was not distributed evenly over the state. In one county returns filed declined 70 percent, while in seven counties (including Milwaukee and accounting for 54 percent of the 1935 returns) more returns were filed in 1935 than in 1929. Making separate returns compulsory accounted for an increase in the 1935 returns without a corresponding increase in the number of family units represented. When 'family units', i.e., the number of returns minus the number of separate returns filed by married women, are compared, families filing declined 16 percent; and the variation in the percentage decreases by county was slightly less. In four counties more families filed returns in 1935 than in 1929; in Milwaukee county, approximately the same number; and in 13 counties the number of families filing decreased more than 40 percent from 1929 to 1935. The largest percentage decreases tended to be in predominantly agricultural counties, although several counties that contained industrial cities also experienced large decreases. These changes make comparisons of consecutive filers with all taxpayers for 1929 almost impossible to interpret.

The wide variations in the percentage of family units among 1935 taxpayers filing separate returns—from 4.05 in the Wausau assessment district to 9.83 in the Madison assessment district—make it especially desirable to eliminate the effects of the separate

return rule by using family units rather than returns as a basis of comparison. This decision, however, eliminates the possibility of using the number of returns in the original 50 percent sample of consecutive filers, since we do not have the number of separate returns in this group. The sample of consecutive filers was selected for each county independently since the returns for each county are filed separately. Consequently, there was little chance for other than proportionate representation of consecutive filers within each county in the sample. The 5 percent sample selected for final tabulation, however, represents 7.0-13.9 percent of the 50 percent sample, with the exception of two extreme counties, which have 2.5 and 17.0 percent. The 5 percent sample was 9-11 percent of the 50 percent sample for 44 of the state's 71 counties. The counties outside these narrow limits tended to be counties with fewer than 100 consecutive filers.

In the state 67 percent of all family units filing in 1935 had filed consecutive returns since 1929; in 51 counties, 55-80 percent. Counties with percentages outside these limits were in every part of the state and did not seem to be associated with characteristics for which we have data. The percentages for each of the nine assessment districts range from 57 to 70, which does not seem to be an intolerable dispersion, especially in view of the crudeness of the measures.