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## CHAPTER 22

### TOTAL AMOUNT OF INCOME RECEIVED BY PERSONS HAVING OVER \$2,000 PER YEAR

#### § 22a. Introduction

The estimate of the total income of persons receiving over \$2,000 per year is based on income-tax returns, on data regarding tax-exempt income, and on incomes of farmers having over \$2,000 per year. These three parts of the estimate are discussed in detail in the following sections. Table 22A presents the final results.

**TABLE 22A**

**ESTIMATED TOTAL NUMBER OF PERSONS AND TOTAL AMOUNT OF  
INCOME FROM ALL SOURCES RECEIVED BY ALL PERSONS HAVING  
INCOMES OVER \$2,000**

1910 to 1920

Year	Income in millions of dollars				Number of persons		
	I Income tax data <sup>a</sup> (exclud- ing farmers)	II Tax- exempt income <sup>b</sup>	III Farmers' incomes <sup>c</sup> over \$2,000	IV Total	V Number of persons (excluding farmers)	VI Number of farmers	VII Total number of persons
1910...	\$ 8,800 <sup>d</sup>	\$ 792	\$ 258	\$ 9,850	1,300,000	111,000	1,411,000
1911...	2,600 <sup>d</sup>	806	182	9,588	1,300,000	79,000	1,379,000
1912...	8,800 <sup>d</sup>	818	262	9,880	1,300,000	111,000	1,411,000
1913...	9,000	830	340	10,170	1,300,000	143,000	1,443,000
1914...	8,700	843	340	9,883	1,300,000	144,000	1,444,000
1915...	10,000	858	516	11,374	1,800,000	208,000	2,008,000
1916...	13,500	973	1,179	15,652	2,300,000	448,000	2,748,000
1917...	16,000	1,008	3,886	20,894	2,900,000	1,313,000	4,213,000
1918...	16,200	1,279	5,784	23,263	3,100,000	1,861,000	4,961,000
1919...	17,500	1,550	6,298	25,348	3,600,000	2,008,000	5,608,000
1920...		1,573	2,261			804,000	

<sup>a</sup> See § 22b.

<sup>b</sup> See § 22c.

<sup>c</sup> See Table 24K.

<sup>d</sup> Estimated.

#### § 22b. Estimate from Income Tax Data

Two questions must be answered before the income-tax data as reported by the Bureau of Internal Revenue can be utilized. How much are re-

ported incomes understated and what is the amount of incomes that should be, but are not reported? For brevity we shall call these two defects of the data "understatement" and "failure to report." Failure to report is frequent in the lower income ranges where the exemptions allowed by law would nearly or entirely cover income received; understatement is prevalent in the higher income ranges where most elaborate methods are often resorted to in order to avoid payment of the tax.

Changes in the law itself and in the methods of collecting the tax make comparison between different years difficult. In the years 1913 to 1916, incomes above \$3,000 are reported and thereafter above \$2,000.<sup>1</sup> Further, the deduction of losses incurred in transactions outside of the particular business in which the tax payer was engaged was not permitted in the early years, but in 1917 this ruling was changed so as to permit the writing off of all losses.

It should be noted that profits made from sales of investments or property are included as income under the income-tax law. In Volume I it is held that such profits are a part of individual, but not of National Income.<sup>2</sup> It may be thought that gains of this sort were enormously increased after 1916 by the rise of prices. If all property had actually been sold at current quotations the tax returns would include a vast volume of clearly fictitious income. The fact is, however, that the increased income taxes were an effective deterrent from making realizing sales, so that only a negligible portion of this fictitious income was included in the tax returns. And this portion is probably more than offset by the volume of "loss-taking" sales of property which had declined in price—sales made purposely to reduce the amount of taxable income.

Another factor which must be considered in estimating both the amount of understatement and failure to report is the administration of the income-tax law. This has naturally improved with experience so that the returns are far more accurate for the later than for the earlier years. In particular, an attempt has been made since 1918 to reduce the amount of evasion by "intensive drives" in the \$2,000 to \$5,000 range.

On the other hand, since the armistice technical means to reduce the income reported have been resorted to on a far larger scale than during the war. In particular, the practice of turning over a portion of income-bearing securities to members of the family in order to avoid or lessen taxation is more frequent. This practice may result only in dividing the same amount of income into smaller units; but it may also lessen total income because gifts are counted at their market value at the date of the gift and therefore do not include appreciation of value since their original

<sup>1</sup> No use is made of the data for incomes between \$1,000 and \$2,000, as they apply only to single persons, and are therefore only a part of all the incomes in these ranges.

<sup>2</sup> See Volume I, page 45.

purchase by the donor. This device makes it possible to sell securities without reporting appreciated value. This fact is not of much consequence, however, for the appreciation in the value of securities may in part represent the accumulation of corporate surplus which we include under a separate head, and in part an increase in the price of unchanged property, which we do not wish to include. In addition, the practice of forming investment corporations for the purpose of avoiding or lessening taxation has increased. By this means, surpluses above the current needs of the stockholders are retained by the corporation and hence are not reported as personal income. There is no way of ascertaining with exactness the extent of this practice.<sup>1</sup>

With these general considerations in mind, the data may now be presented. Careful study, year by year, of the figures appearing in the following tables and in the charts in Volume I should enable us to make an estimate allowing for evasion and understatement due to the differences in the methods of collecting the tax in different years, and to changes in the law itself. Concerning the failure to make returns and the inaccuracy of many of the returns made, we have little information beyond a surmise that the omissions are considerable. It is hoped that there will shortly be available the results of audits which will furnish a better basis for an estimate.

The following table shows the total number of persons and amount of income reported by the Bureau of Internal Revenue. Figures are also given for the probable amount of income and number of persons having incomes over \$2,000 in 1913 to 1916. This estimate was made after comparison between the average number of persons and amount of income in the \$2,000 to \$3,000 class in 1917, 1918, and 1919 with those having \$3,000 and over. It was found that about 30 per cent of the total income, and about 50 per cent of income-tax payers fell within this class. These percentages were accordingly used in estimating the amount of income and number of persons having over \$2,000 in the earlier years, 1913 to 1916, as shown in columns II and IV of Table 22B. Doubtless, some degree of error is involved in this estimate because of the rise in prices and the steeper slope of the curve in the later years than in the earlier; but after considerable study no better method has been found.

In order to study the probable amount of failure to report and under-

<sup>1</sup> Probably, 90 per cent of the corporations in the United States represent merely individuals or a small group of individuals doing business through the medium of a corporation. In these cases, there is a strong tendency to withhold dividends. Additions to corporate surplus in such companies are certainly as much income as corresponding items of partnerships or sole traders.

It is to be noted that the war additions to corporate surplus (after taxes) have been wiped out in large measure by (1) the 1920 to 1921 depression and (2) by investments in plant facilities that are unrealizable through either operation or sale.—J. E. Sterrett.

TABLE 22B

**THE OFFICIAL INCOME TAX RETURNS ON THE BASIS OF A UNIFORM  
EXEMPTION LIMIT OF \$2,000**

(No correction for failure to report, understatement, or tax-exempt income)  
1913 to 1920

Year	Number of persons		Amount of income (Millions of dollars)	
	I Reported under the income-tax law <sup>a</sup>	II Estimated incomes over \$2,000	III Reported under the Income-tax Law <sup>a</sup>	IV Estimated incomes over \$2,000
1913.....	357,598 <sup>c</sup>	715,000 <sup>b</sup>	\$ 3,900 <sup>c</sup>	\$ 5,100 <sup>b</sup>
1914.....	357,515 <sup>c</sup>	715,000 <sup>b</sup>	4,000 <sup>c</sup>	5,200 <sup>b</sup>
1915.....	336,652 <sup>c</sup>	673,000 <sup>b</sup>	4,600 <sup>c</sup>	5,900 <sup>b</sup>
1916.....	437,036 <sup>c</sup>	874,000 <sup>b</sup>	6,299 <sup>c</sup>	8,100 <sup>b</sup>
1917.....	1,832,132 <sup>d</sup>	1,832,132 <sup>d</sup>	11,191 <sup>d</sup>	11,191 <sup>d</sup>
1918.....	2,908,176 <sup>d</sup>	2,908,176 <sup>d</sup>	13,692 <sup>d</sup>	13,692 <sup>d</sup>
1919.....	3,407,888 <sup>d</sup>	3,407,888 <sup>d</sup>	17,030 <sup>d</sup>	17,030 <sup>d</sup>
1920.....	7,000,000 <sup>e</sup>			

<sup>a</sup> Annual Report of the Secretary of the Treasury, June 30, 1914, p. 628. Bureau of Internal Revenue, *Statistics of Income*, 1916, pp. 14, 23; 1917, pp. 28, 29; 1918, pp. 36, 37; Preliminary report for 1919, p. 8.

<sup>b</sup> On the basis of 1917, 1918, and 1919, see text.

<sup>c</sup> For incomes over \$3,000.

<sup>d</sup> Actual number or amount reported for incomes over \$2,000.

<sup>e</sup> Preliminary figure including incomes over \$1,000.

statement of income for each year, the income-tax data were plotted on a logarithmic scale. These charts are reproduced on pages 120 and 121 of Volume I. A chart on a logarithmic scale emphasizes small arithmetic increments or decrements in the lower numbers and minimizes them in the larger numbers. A slight change, therefore, in the shape of the curve at the left hand (lower income) end is of great importance, since it involves a large number of incomes. The advantage of charting the data in this form for analysis is illustrated in Part III of this volume.

It should be noted that the curves for each year show a general similarity in the direction and angle of slope. Reading toward the left from the right hand side of the chart, the curves for 1913 to 1916 fall off at the \$5,000 point, whereas the curve for 1917 is almost a straight line. In 1918 and 1919 the curves turn sharply upward at this point. These observations indicate (1) that the comparative number of incomes reported in the \$2,000 to \$5,000 ranges in the earlier years was less than in the later years; <sup>1</sup>

<sup>1</sup> In order to discover tax delinquents in 1918, all employers were required to report the

and suggest (2) that the reporting of incomes in the \$5,000 to, say, \$50,000 ranges was less complete than in the higher ranges.

To show more fully the situation in the lower income ranges in the years 1917 to 1919, the following table has been made.

TABLE 22C

COMPARISON OF REPORTED NET INCOME, INCOME FROM SALARIES,  
AND INCOME FROM BUSINESS OF PERSONS RECEIVING \$2,000 TO  
\$5,000 PER YEAR

1917 to 1919

Year	Number of Persons	Net income	Income from salaries (Thousands of dollars)	Income from business
1917 <i>a</i> . . . . .	1,399,470	\$4,180,842	\$1,853,648	\$1,802,641
1918 <i>b</i> . . . . .	2,429,214	7,162,044	4,389,992	1,733,831
1919 <i>c</i> . . . . .	2,750,229	8,320,550	5,445,578	1,860,148

*a* *Statistics of Income*, 1917, pp. 40, 41.

*b* *Statistics of Income*, 1918, p. 44.

*c* *Statistics of Income*, 1919, Preliminary Report, pp. 8, 11.

Income returns of less than \$5,000 were checked in the field from 1918 on,<sup>1</sup> while those of over \$5,000 were sent to Washington and checked by the central force. This system resulted in the greatest care being given to the smaller incomes and to the large ones of say \$50,000 or more. The Washington force has in the past been inadequate to audit all the returns, and in addition has been so far in arrears that its findings have been made too late to affect the statistical data, which are of necessity computed from the returns as they are originally reported. The dip in the curve between \$5,000 and \$50,000 in these years may thus reflect understatement of incomes and be due largely to the technique of the Bureau of Internal Revenue. The figures for incomes above \$50,000 are believed by competent authorities to be technically almost accurate, containing only such understatements as can be made within the letter of the law. The amount of such understatement is included in the estimate in § 22c on Tax-exempt Income.

Further light is apparently thrown on the general problem of understatement by a comparison of the average amounts of income reported in each year.

amounts over \$1,000 paid to any individual in wages. The result of this drive was that the amount of income reported between \$2,000 and \$5,000 as received from wages or salaries was greatly increased. No such simple method has been devised for detecting delinquents among men doing business in a small way on their own account, however, and in 1918 the number of such persons filing income-tax returns actually declined. We cannot, therefore, believe that failure to report has yet been reduced within narrow limits.

<sup>1</sup> Returns for the year 1917.

TABLE 22D

AVERAGE INCOME OF PERSONS RECEIVING OVER \$3,000			
1913 to 1919			
Year	Number of persons (Thousands)	Total income (Millions of dollars)	Average income
1913.....	357 <sup>a</sup>	\$ 3,900 <sup>b</sup>	\$10,906
1914.....	357 <sup>b</sup>	4,000 <sup>b</sup>	11,188
1915.....	336 <sup>b</sup>	4,600 <sup>b</sup>	13,664
1916.....	437 <sup>b</sup>	6,298 <sup>b</sup>	14,415
1917.....	993 <sup>c</sup>	9,126 <sup>c</sup>	9,187
1918.....	1,411 <sup>d</sup>	10,065 <sup>d</sup>	7,132
1919.....	1,838 <sup>e</sup>	13,223 <sup>e</sup>	7,194

<sup>a</sup> *Annual Report of the Secretary of the Treasury, June 30, 1914, p. 628.*

<sup>b</sup> *Statistics of Income, 1916, p. 14.*

<sup>c</sup> *Statistics of Income, 1917, p. 28.*

<sup>d</sup> *Statistics of Income, 1918, p. 36.*

<sup>e</sup> *Statistics of Income, 1919, Preliminary Report, p. 8.*

According to this table the average income over \$3,000 increased rapidly from 1913 to 1916, dropped violently in 1917, and declined still further in 1918. These changes are the net resultant of several factors. (1) Incomes already large doubtless grew rapidly larger with the recovery from the depression of 1913-14, and the sudden uprush of prices after the middle of 1915. (2) On the other hand, these large incomes were probably reduced in 1917-19 by the encroachments made upon profits by increasing costs of doing business. (3) The war-time rise of wages, salaries, professional fees and of the gains of small business men carried many incomes for the first time in the lives of their recipients above the \$3,000 line, and of course this rapid increase in the number of incomes in the \$3,000-\$5,000 intervals tended powerfully to reduce the average of all incomes above \$3,000. (4) After the effect of these three factors has been allowed for the figures still suggest that a considerable rôle was played by fuller reporting of small incomes. The reduction of the exemption limit from \$3,000 to \$2,000 in 1917, the patriotic spirit that made people more willing to pay taxes during the war and the "intensive drive" of 1918 all contributed to this result.

In so complex a situation it is impossible to attribute its due effect to each of the intermingled factors. Yet a rough series of corrections can be made to give approximations much closer to the whole truth than the official figures give. The method adopted is first to correct the official returns for 1918, and then to use these new estimates as a basis for correcting the figures for earlier years.

The probable amount of understatement and failure to report income in 1918 was estimated as follows:

1. The failure to report incomes from business in the \$2,000 to \$5,000 range was considerable. The doubling of incomes from salaries owing to the "drive" in 1918 indicates that an equally successful effort to find small business incomes would have had large results. For our purposes, the best guess is to double the amount reported under this head—a correction which adds \$1,298 million to the total.

2. The understatement of income from salaries in 1918 was probably very much less. This item had been increased very largely over 1917, and the manner in which the work was conducted indicates that nearly all salaries were found. However, since this item showed a still further increase of over a billion dollars in 1919, it is probable that there was still some understatement in 1918. This amounted to perhaps one-tenth of the reported total, or \$370 million.

3. The understatement of the incomes between \$5,000 and \$50,000 is very difficult to estimate. In these ranges, there were reported in 1917, 415,000 incomes, totalling \$4,560 million; in 1918, 465,000 incomes, totalling \$4,860 million; and in 1919, 640,000 incomes, totalling \$6,645 million. It is known that this class escaped attention in 1918 to a greater degree than either the larger or smaller incomes, and this point is graphically illustrated by the "dip" shown in the preceding charts. It is noteworthy that in 1919 the "dip" was to some extent reduced. An elimination of the "dip" and a reading of the points on the redrawn curve for 1918 indicates a possible increase of from \$1 to \$3 billion; the points are so fine at this stage of a logarithmic chart that the slightest variation causes an enormous difference in the readings. A flat increase of \$2 billion for the understatement in these ranges in 1918, then, appears to be as close a correction as can be made.

A summary of these corrections in tabular form follows:—

TABLE 22E

ESTIMATED AMOUNT OF INCOME SUBJECT TO TAXATION IN 1918

(Excluding farmers)

(Millions of dollars)

Income reported over \$2,000.....	\$13,692 <sup>a</sup>
Less Farmers' Income.....	1,123 <sup>b</sup>
	<hr/>
	\$12,569
Add Estimated Business delinquencies (\$2,000-\$5,000).....	1,298 <sup>c</sup>
Estimated Salary delinquencies (\$2,000-\$5,000).....	370 <sup>c</sup>
Estimated General delinquencies (\$5,000-\$50,000).....	2,000 <sup>c</sup>
	<hr/>
Total Estimated Income.....	\$16,237

<sup>a</sup> *Statistics of Income*, 1918, pp. 36, 37.

<sup>b</sup> *Statistics of Income*, 1918, p. 11.

<sup>c</sup> See text.



When the curve for 1918 is redrawn on the basis of \$16.2 billion instead of \$13.7 billion total income, it shows only a small "dip" in place of the very pronounced one shown in Chart 22B. If a similar computation is made for earlier years, based on the results for 1918, and if the general information contained in the preceding charts and tables is utilized, then the approximation to the income over \$2,000 for each of these years is as follows:—

TABLE 22F

ESTIMATED TOTAL NUMBER OF PERSONS AND AMOUNT OF TAXABLE INCOME OF PERSONS RECEIVING INCOMES OVER \$2,000 PER YEAR

(Excluding farmers)

1913 to 1920

	Number of persons (Millions)	Total income (Billions)	Minimum and maximum estimates (Billions)
1913.....	1.3	\$ 9.0	\$ 7-10
1914.....	1.3	8.7	7-10
1915.....	1.8	10.0	8-12
1916.....	2.3	13.5	12-15
1917.....	2.9	16.0	15-19
1918.....	3.1	16.2	15-19
1919.....	3.6	17.5	17-20

Needless to say, any method of estimating money income that ought to be, but is not, reported to the taxing authorities yields merely rough approximations. It cannot be pointed out too often that the exactness of the figures used is purely technical. However, they are the result of an exhaustive scrutiny and analysis of the existing data, and a careful study of the best means of interpreting them. No final solution of the income distribution problem can be reached until we have an accurate census of the incomes of all the people in the country, or at least of a large and *well selected* sample.

### § 22c. Tax-exempt Income

In addition to the kind of incomes which are or should be reported by persons under the income-tax law, there are some forms of income which are not reported because they are exempt from taxation. Certain items of this tax-exempt income can be said with some assurance to accrue almost entirely to those having incomes over \$2,000, for example, income from state or local bonds and Federal Farm Loan Bonds. Other types of income, such as the interest on Liberty Bonds, state and local salaries, and income

from homes owned by their occupants, are known to be divided between those having incomes over and under \$2,000. Where no statistical information was obtainable, we have apportioned such incomes in the manner which seemed, all things considered, most probable.

The following table is presented to show the amount of income which accrues to the persons falling under the income-tax law and for which they are not required to make any return.

TABLE 23G

ESTIMATED TAX-EXEMPT INCOME <sup>a</sup>

1910 to 1920

(Tax-exempt Agricultural Income Omitted)

(Millions of dollars)

Year	I Interest on local debt	II Interest on Liberty Bonds	III Interest on Federal Farm Loan Bonds	IV Interest on obli- gations of pos- sessions of U. S. <sup>b</sup>	V Income exempt through nature of oc- cupation <sup>c</sup>	VI Rental value of homes owned	VII Total
1910.....	\$134	\$	\$	\$3	\$155	\$500	\$ 792
1911.....	148			3	155	500	806
1912.....	160			3	155	500	818
1913.....	172			3	155	500	830
1914.....	185			3	155	500	843
1915.....	200			3	155	500	858
1916.....	215			3	155	600	973
1917.....	228	20	1	4	155	600	1,038
1918.....	236	180	4	4	155	700	1,279
1919.....	259	380	7	4	200	700	1,550
1920.....	282	380 <sup>d</sup>	7 <sup>d</sup>	4	200	700	1,573

<sup>a</sup> See the following tables for references.

<sup>b</sup> And also U. S. bonds issued prior to 1917.

<sup>c</sup> State, city and county salaries.

<sup>d</sup> Estimated.

The items of this table are taken up in the following divisions.

1. Local Debts.

The next table gives the amount of state, municipal and local debts in 1913.

The security issues subsequent to 1913 are recorded by the *Bond Buyer* which has the most complete records available. An estimate of the amount of refunding may be obtained by comparing the total issues reported by the *Bond Buyer* with the actual increase as shown by successive Census reports. In 1902, the Census of *Wealth, Debt and Taxation* reported a

TABLE 22H

TOTAL AMOUNT OF STATE, MUNICIPAL, COUNTY, AND LOCAL BONDS OUTSTANDING <sup>a</sup>

1913	
State.....	\$ 345,942,305
Municipal.....	2,884,882,726
County.....	371,528,268
Specified Civil Divisions.....	100,672,758
School Districts.....	118,870,601
<b>Total</b>	<b>\$3,821,896,658</b>

<sup>a</sup> U. S. Department of Commerce, Bureau of the Census, *Wealth, Debt, and Taxation*, 1913. Sinking funds excluded.

total of \$1,865 million for debts of states, municipalities, and localities as compared with \$3,822 million in 1913. This increase of \$1,967 million compares with total issues of about \$3,100 million reported during the same period in the *Bond Buyer*. Accordingly, the issues reported annually by the *Bond Buyer* have been reduced by one-third to represent the approximate net increase in indebtedness.

The following table shows the new issues of securities for each year, the estimated increase of indebtedness, and the total estimated interest payments.

TABLE 23I

## ESTIMATED TOTAL DEBT AND INTEREST PAYMENTS OF STATES, MUNICIPALITIES, COUNTIES, AND LOCALITIES

1910 to 1920

(Millions of dollars)

Year	I Amount issued <sup>a</sup>	II Estimated net increase of debt	III Estimated total debt	IV Total interest at 4.5% <sup>c</sup>
1910.....	\$324	\$216	\$2,983	\$134
1911.....	452	301	3,284	148
1912.....	399	266	3,550	160
1913.....	408	272	3,822 <sup>b</sup>	172
1914.....	446	297	4,119	185
1915.....	493	329	4,448	200
1916.....	497	331	4,779	215
1917.....	445	297	5,076	228
1918.....	263	175	5,251	236
1919.....	770	513	5,764	259
1920.....	745	497	6,261	282

<sup>a</sup> *Bond Buyer*, Jan. 3, 1920, p. 34, and Jan. 8, 1921, p. 32.

<sup>b</sup> Bureau of the Census, *Wealth, Debt and Taxation*, 1913.

<sup>c</sup> The average weighted rate of interest of samples of loans issued at various dates was 4.47 per cent. The increase in interest rates in 1919 affects only a small fraction of the total debt.

2. Liberty Bonds.

Liberty Bond issues outstanding at different dates were of the following amounts:

TABLE 22J

APPROXIMATE VALUE OF LIBERTY BONDS OUTSTANDING

1917 to 1919

(Millions of dollars)

	1917 <sup>a</sup>	1918 <sup>b</sup>	1919 <sup>c</sup>	1920
1st (3½%)	\$1,466	\$1,989	\$1,985	\$1,953 <sup>d</sup>
2nd (4%)		3,747	3,566	3,325 <sup>d</sup>
3rd (4¼%)		3,228	3,959	3,663 <sup>d</sup>
4th (4¼%)			6,794	6,394 <sup>d</sup>
Victory (3¾% & 4¼%)			3,468	4,246 <sup>d</sup>
W. S. S. (4%)		350	954	954 <sup>e</sup>
Total	1,466	9,314	20,726	20,535

<sup>a</sup> Report of the Secretary of the Treasury, 1917, p. 56.

<sup>b</sup> Report of the Secretary of the Treasury, 1918, p. 157.

<sup>c</sup> Report of the Secretary of the Treasury, 1919, p. 214.

<sup>d</sup> Report of the Secretary of the Treasury, 1920, p. 451.

<sup>e</sup> 1919 figure carried forward.

Of these issues, the First Liberty Loan and part of the Victory Loan are entirely tax-exempt. The others are exempt only within rather narrow limits.

The income from these bonds is divided between banks, corporations and individuals. The following table shows the estimated amounts held by banks on the one hand and by corporations and individuals on the other.

In order to estimate roughly the income from Liberty Bonds received by individuals having incomes over \$2,000, estimates of the interest received by corporations, and by individuals having incomes under \$2,000 must be made. An examination of corporation statements leads to the conclusion that about \$40 millions of such interest was paid to corporations in 1918 and \$90 millions in 1919. Subtracting these amounts from the figures shown in the last column of Table 22K, we get a total received by individuals of about \$27 millions in 1917, \$262 millions in 1918 and \$683 millions in 1919. Seventy per cent of these amounts <sup>1</sup> may be considered

<sup>1</sup> The original amounts of the bonds issued in the different denominations are as follows:—

\$10,000	\$3,209,810,000
5,000	1,493,060,000
1,000	9,767,222,000
500	2,095,775,000
100	3,389,800,900
50	2,814,924,850

(Annual Report of the Secretary of the Treasury, 1920, p. 435.) The amounts owned by

TABLE 22K

ESTIMATED DIVISION OF THE INCOME FROM LIBERTY BONDS  
BETWEEN BANKS, CORPORATIONS AND INDIVIDUALS

1917 to 1919

(Millions of dollars)

Year	Bonds outstanding			Income from bonds		
	I Total amount outstand- ing	II Amount held by banks <sup>a</sup>	III Amount held by corpora- tions and individuals	IV Estimated total income	V Estimated income of banks	VI Estimated income of corpora- tions and individuals
1917.....	\$ 1,466	\$ 703	\$ 763	\$ 51	\$24	\$ 27
1918.....	9,314	1,374	7,940	357	55	302
1919.....	20,726	1,450	19,276	834	61	773

<sup>a</sup> Reports of Comptroller of the Currency, 1917, v. I, p. 11; 1918, v. I, p. 16; 1919, v. I, p. 40.

a fair guess at the proportion held by individuals with incomes over \$2,000; which suggests as the probable amount of tax-exempt personal income from this source, about \$20 millions in 1917, \$180 millions in 1918, and \$480 millions in 1919. The later issues were more narrowly tax-exempt, so that a considerable portion of the interest received in 1919 had to be reported in the income-tax returns. The actual exemption in that year was then less than \$480 millions by perhaps \$100 millions, or say \$380 millions. No change of any moment from this amount is warranted for 1920, and the same figure is used for that year.

### 3. Federal Farm Loans.

The following table gives the amount of Federal Farm Loan Bonds outstanding in recent years. The Farm Loan Board estimates that practically the entire issue is in the hands of the public and not in the hands of commercial banks.

banks and corporations must have been in the neighborhood of four billion dollars—probably for the most part in large denominations. Few people having incomes of less than \$2,000 could be expected to own bonds of \$500; and some of the persons having incomes of over \$2,000 would own bonds of \$50 or \$100. The division of the bonds between persons having more than \$2,000 and less than \$2,000 would be approximately as follows:

To persons having over \$2,000; \$16,566 million, being the sum of the denominations of \$500 to \$10,000, plus one-tenth of the \$50 and \$100 (\$620 million), a total of \$17.3 billion; less \$4 billion, the amount held by banks and corporations, giving a final amount of \$13.3 billion. To persons having less than \$2,000; nine-tenths of the \$50 and \$100 bonds, or \$5,584 million. This would give 70 per cent of the bond interest credited to individuals to persons having over \$2,000.

TABLE 22L

## FEDERAL FARM LOAN BONDS OUTSTANDING

1917 to 1919 (Thousands of dollars)

	1917	1918	1919
Bonds outstanding <sup>a</sup> . . . . .	\$21,447	\$140,122	\$285,500
Bonds held by the Treasury <sup>b</sup> . . . . .	0	56,865	136,885
Bonds held by the Public . . . . .	\$21,447	\$83,257	\$148,615
Income from Bonds held by the Public <sup>c</sup> . . . . .	992	3,851	6,873

<sup>a</sup> On October 31.<sup>b</sup> Unpublished figures furnished by the Assistant Secretary of the Federal Farm Loan Bureau.<sup>c</sup> These loans pay from 4 1/2 per cent to 5 per cent and the interest rate is computed on the basis of 4 5/8 per cent.

4. U. S. Bond Issues prior to 1917 and Bonds of U. S. Possessions.

U. S. Bonds issued prior to the year 1917 consisted on June 30, 1919 of the following:

TABLE 22M

U. S. BONDS ISSUED PRIOR TO 1917 <sup>a</sup>

	Rate of interest	Amount	Principal holder
Consols of 1930 . . . . .	2%	\$599,724,050	Banks
Loans of 1925 . . . . .	4	118,849,900	Banks
Panama Canal Loan . . . . .	2	74,901,530	Banks
Panama Canal Loan . . . . .	3	50,000,000	Public
Conversion Bonds . . . . .	3	28,894,900	Banks
Postal Savings Bonds . . . . .	2 1/2	11,349,960	Public

<sup>a</sup> Report of the Secretary of the Treasury, 1919, p. 113.

With slight changes, reported annually by the Secretary of the Treasury, the interest on these amounts is about \$22 million. A large number of these bonds are held by banks; the best estimates obtainable show that only the Panama 3 per cent bonds and the Postal Savings Bonds are to any extent in the hands of the public.<sup>1</sup> The annual income from the bond issues which are held largely by the public accordingly amounts to \$1,784,000. To these issues must be added the interest on bonds of the possessions of the United States (Hawaii, Philippines and Porto Rico). The amounts involved are small. In 1910 the total debt was \$22 million and mounted gradually to \$41 million in 1920. The interest at the earlier date, therefore, was approximately \$880,000 and at the later date,

<sup>1</sup> Estimate made by Commission of Public Debt, August 25, 1920.

\$1,640,000. These two amounts add up to about \$3 million per year for the earlier years and \$4 million per year for the later years.

### 5. State, City and County Salaries.

The expenditures for salaries by states, cities and counties are not subject to the Federal income tax, and such salaries as are above \$2,000 should, therefore, be added to the income which is known to accrue to certain individuals. The data are mainly taken from the Census publications, *Financial Statistics of States, 1918, Financial Statistics of Cities, 1918, and County Revenues, Expenditures and Public Properties, 1913*. From the data given in these reports, other expenses, such as payments for upkeep, interest, and general expenses, have been excluded in Column II of Table 22N, and the final estimate has been a rough paring-down of the remainder. A number of items included both salaries and upkeep, so that an itemized division is not practicable and no more elaborate method is warranted under the circumstances. A check on the salaries paid by states was, however, possible. The reports of six States were scrutinized with great care, and an estimate for the entire country was made on the basis of each state. This estimate varied from \$159 to \$270 million, the average being \$202 million. In view of this, the final estimate of \$200 million for state salaries appears reasonable. City and county estimates are reduced in an approximately similar ratio.

TABLE 22N

### ESTIMATED TOTAL SALARIES PAID TO STATE OFFICIALS

1918

State	I Actual amount of total salaries paid	II Estimated amount of total salaries paid	III Per cent of population of U. S. re- siding in State	IV Estimated amount of salaries paid by all States on the basis of one State
California <sup>a</sup> . . . . .		\$7,898,591	2.92	\$270,499,690
Indiana <sup>b</sup> . . . . .		5,744,887	2.76	208,148,000
Louisiana <sup>c</sup> . . . . .		2,849,546	1.79	159,192,510
New York <sup>d</sup> . . . . .	\$16,092,581		9.91	159,477,477
Virginia <sup>e</sup> . . . . .		3,792,280	2.135	177,623,410
Wisconsin <sup>f</sup> . . . . .		5,728,231	2.426	236,118,340
Average of six preceding estimates				\$201,842,236

<sup>a</sup> California *Biennial Report of the State Comptroller, 1917 to 1918*.

<sup>b</sup> Indiana *Year Book, 1919*.

<sup>c</sup> Louisiana *Biennial Report of Auditor, 1918*.

<sup>d</sup> New York *Report of Comptroller, 1917, Part 3, p. 11*.

<sup>e</sup> Virginia *Annual Report of Treasurer, August 3, 1918*.

<sup>f</sup> Wisconsin *Report of Treasury, June 30, 1917*.

In order to determine the percentage of state salaries larger than \$2,000, 1,500 samples were taken from the U. S. Official Register for 1911, 1917, and 1919 by choosing the top right hand amount on each page. These samples indicated that about 8 per cent of government employees receiving about 20 per cent of the total salaries fell in the class having salaries of over \$2,000, the percentage being about the same for each year. This percentage is used in Column III of Table 220. Since government salaries did not increase in any marked degree until 1919, when the average increase was about 30 per cent, the same total of \$155 million is kept from 1913 to 1918, and \$200 million is estimated for 1919 and 1920.

TABLE 220

## ESTIMATED TOTAL SALARIES PAID TO STATE, CITY AND COUNTY OFFICIALS

(Thousands of dollars)

	I Total expenses of general departments <sup>a</sup>	II Estimated total salaries	III Estimated salaries over \$2,000 (20 per cent of Col. II)
State (1918).....	\$297,801 <sup>b</sup>	\$200,000	\$ 40,000
Cities over 2,500 (1913).....	666,384 <sup>c</sup>	400,000	80,000
Counties (1913).....	277,735 <sup>d</sup>	175,000	35,000
Total.....		\$775,000	\$155,000

<sup>a</sup> Expenses of General Departments include administrative and other expenses for (a) General Government, (b) Protection to Persons and Property, (c) Conservation of Health and Sanitation, (d) Highways, (e) Charities, Hospitals and Corrections, (f) Schools and Libraries, (g) Recreation, (h) Miscellaneous.

<sup>b</sup> Bureau of the Census, *Financial Statistics of States*, 1918, Table 10.

<sup>c</sup> Census of *Municipal Revenues, Expenditures and Public Properties*, 1913, p. 182, Table 5.

<sup>d</sup> Bureau of the Census, *Wealth, Debt and Taxation*, 1913, v. II, Table 5, p. 210.,

## 6. Rental Value of Homes Owned by their Occupants.

To estimate the value of the rentals of homes owned by persons in the income class above \$2,000, it is necessary to fall back on broad generalizations. No definite body of data exists. The number of persons excluding farmers falling into this group and their total incomes are shown in Table 22A.

The Census of 1910 reports about five and one-quarter million houses owned by occupiers, excluding farmers. This is about 40 per cent of the fourteen million families in the country. Since home ownership has increased among the wealthy, especially in recent years, because of the



income-tax exemption, it is not improbable that one-half of the income-tax payers own their homes.

There does not appear to be any information in regard to the relation of income to rent for the higher class incomes. The Bureau of Labor Statistics finds 13.4 per cent to be the proportion of rent to income for working class families.<sup>1</sup> These data, which include incomes up to \$2,500, show that the percentage decreases with a rise in the incomes; for incomes above \$2,500 we have no data regarding the relation between rent and income. Without a complete Census, or at least a typical sample of incomes, rents, and ownership of homes of the different income classes of the country, any estimate must be mere conjecture.

The proportion of 13.4 per cent above mentioned, when applied to one-half the total amount of income, estimated for the class above \$2,000, yields results ranging from one-half billion to three-fourths billion dollars. In view of the increase in the number of income-tax payers between 1913 and 1919, together with the increase in the amount of income, it is concluded that the total value of rents increased from about one-half to three-fourths billion dollars. Because of the need of placing a definite amount in Table 22G, amounts varying from \$500 to \$700 million are inserted, but their accuracy is only nominal.

<sup>1</sup> *Monthly Labor Review*, August, 1919, p. 118.