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The National Income of the United Kingdom in 1924

By A. L. BOWLEY

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SINCE it is agreed that the year 1924 is the first post-war date for which a valid estimate of the National Income is practicable, and since estimates for pre-war and for later years will be brought into comparison with it, it is important to examine the recent valuation by Mr. Clark,¹ and collate it with a former estimate by Sir Josiah Stamp and the present writer.²

The annexed Table shows in sufficient detail the principal items, both of income and of occupied persons. In the sequel I means the earlier estimate, II Mr. Clark's.

The total numbers occupied (I) are estimated from the Population Census of 1921, subdivided into the various classes named, so that all doubtful cases are included in one group or another (I, pp. 12, 13); by a suitable percentage addition the numbers were brought up to the date 1924. In II there is no total given for 1924, but the figures on II, p. 15 for 1928, are consistent with the total in I. The totals of salaried persons and of other classes estimated from the census were divided in I as above or below the Income Tax exemption limit on the basis of a special enquiry and other rather rough data. In II, I gather that a similar process was used, but I cannot discover on what the aggregate numbers for 1924 are based, except that it is clear that an increase of 15 per cent. in the number of salaried persons is assumed between 1921 and 1924 (pp. 29 and 43), while in I it was assumed that the increase was by 2 or 3 per cent. only, in proportion to the number of wage-earners. The difference leads to more persons in II(a) and on the other hand to more in I(d).

As regards the rest of the Intermediate Class the number of Farmers (d) is taken in I much higher than in II, since the great majority of farmers who are not assessed to tax appears to justify

¹ Colin Clark: *The National Income, 1924-1931*. 1932.

² Bowley and Stamp: *The National Income, 1924*. Clarendon Press, 1927. [Out of Print.]

NATIONAL INCOME: UNITED KINGDOM, 1924

I. BOWLEY AND STAMP. II. CLARK.

	Income £ Millions.		Numbers Occupied (ooo's).	
	I.	II.	I.	II.
Income-Tax Income :				
(a) Above exemption limit	2218	2152	Salaried	1700 2090
(b) Intermediate Salaries Assessed	—	15 ³	Others	1200 1200
	<u>2218</u>	<u>2167</u>		<u>2900 3290</u>
Intermediate Class :				
(c) Salaries	101	90(+12 ³)		1120 1130
(d) Farmers	26	13		260 100
(e) Others	63	43(+3 ³)		620 535
(f) Dividends, etc. ...	77	77		— —
	<u>267</u>	<u>223(+15³)</u>		<u>2000 1765</u>
(g) Wages	1600±80	1413		15400 13530
(h) Pensions	93	—		— —
(i) Employers' Insurance	35	40		— —
(j) Business premises, rates	—	55		— —
	<u>128</u>	<u>95</u>		<u>— —</u>
Aggregate Income and numbers	<u>4213</u>	<u>3898</u>		<u>20300 18585</u>
Subtract :				
(k) To Foreigners, personal	25	25		
(l) To Foreigners, Govt.	24	20		
(m) National Debt Int.	268	267		
(n) Pensions	93	—		
	<u>410</u>	<u>312</u>		
Social Income	<u>3803</u>	<u>3586</u>		
	<u>±100</u>			

the larger figure. So far, (a) to (f), the difference between the aggregate estimates of occupied persons other than wage-earners is not very serious (4,900,000 in I against 5,055,000 in II).

The most important difference between the estimates is in the number of wage-earners. In I this number was deduced from the Census of 1921 and the known growth of the population. In II it is built up from the statistics of the Health and the Unemployment Insurance Administrations. No total figure of the working class is given in II, since the most general Table (p. 49) does not include persons under 16 years and does include salaried persons. In most of the estimates unemployed persons are excluded.

³ See text. These are estimates for small earnings of husband and wife jointly above the exemption limit. In II they are included in Income-Tax Income, not in Intermediate.

The number given in the annexed Table, I (g), is obtained from pp. 60-1 as follows :

					000's
Insured persons at work (aged 16 to 65) : Great Britain					9,935
Add for North Ireland	...	...	...	...	235
„ „, excepted employments (railways, etc.)				...	500
„ „, under 16 and over 65 years		...	...	...	720
„ „, agriculture	...	...	...	...	970
„ „, domestic service	...	...	...	...	1,400
„ „, army, navy, etc.	...	...	...	...	335
					<hr/>
					14,095
Subtract insured salaried persons	...	...	...	...	1,915
					<hr/>
					12,180
Add for wage-earners unemployed	...	...	...	...	1,350
					<hr/>
Total wage-earners	...	...	...	...	13,530
					<hr/>

Since there were 960,000 occupied boys and girls under 16 years in Great Britain in 1921, and about 350,000 insured persons over 65 in 1927, the addition in the fourth line seems too small. The numbers in agriculture and in domestic service are conjectural. I gather that Mr. Clark would add to the total about 6 per cent.⁴ for the superannuated and for casual workers, thus making about 14,200,000 or still a million less than I(g). Somehow this million, returned as "occupied" in the population Census, is lost in the Insurance figures. The statistics on p. 49 indicate that the deficiency is principally among men, since there is a large unexplained excess of men insured for health but not for unemployment.

In I the estimate for wages is based on the number of wage-earners in 1921 sorted into their industries (with additions to bring the figures up to 1924⁵), and on a study of average wages and their changes, starting from the Census of 1907 and using all available information, including a great part of the Ministry of Labour's estimate for 1924.

In II the last named source for wages is used in conjunction with the Census of Production. So far as that goes the total is

⁴ This estimate is not accurately quoted from the predecessor to I. There it is used to discount total wages, not total numbers.

⁵ The numbers from the 1924 Census of Production were not available for this estimate.

about 6 per cent. (£50 million) greater than that obtained by Mr. F. Brown's method (*ECONOMICA*, 1928, p. 330), and is very slightly greater than the total given for the same group of industries by Mr. Schwartz.⁶ The Census, however, covered less than seven million employed operatives. For the rest every investigator has to depend on rather rough estimates based on scattered information. There should be an addition of £9 million for coal on Mr. Clark's own figures (p. 55). Also I think that there should be a greater allowance for extra and overtime earnings in agriculture (this with the greater estimate for farmer's incomes is necessary to make up the value of the net output of agriculture). There is certainly room for divergence of estimate for the 1,800,000 workers discussed on pp. 56-8. I think that it is quite possible that £50 million may be additive to the estimate II(*g*), making it £1,400 to £1,460 million instead of £1,413 million, which is given implicitly as correct to the last digit. We have still to find £60 million to reach the lower limit of estimate I(*g*), which reads £1,520 to £1,680 million. Here we must depend on the million persons (mainly men) who have dropped out of II. We can account possibly for some of them in the estimates of non-wage-earners, but the great bulk of them cannot be found in II. There is no reason to think that these people had no source of income, and since the unemployed, the incapacitated or sick, the superannuated and the casuals are already allowed for, it would be reasonable to assign to them some £90 million per annum.

It is not, however, only a question of numbers of wage-earners that makes the difference. Working back to my original data I find that excluding old and casuals the average earnings per head were estimated at £110 ± 5, whereas from II it is only £104½, that is near the lower limit of I.

Decision on these problems must be deferred till we can match the Census of Population of 1931 with the Insurance figures, with the wage enquiry of 1928 and with the Census of Production of 1930.

If it proves that the £1,600 million in I(*g*) is an over-estimate, then also is the £773 million quoted for wages for 1911 in II, p. 63; for the estimates were on a similar basis and are bound to each other by carefully tested index-numbers. This estimate for 1911 is not comparable with Mr. Clark's estimate for 1924, and the alternative estimates for 1924 should have been shown for all categories. As it is, unwarranted inferences may be drawn from the Table on p. 63; in particular, that drawn by Mr. Clark

⁶ London and Cambridge Economic Service, Memorandum 26.

himself on p. 72, where he speaks of the declining share of the income going to wages. My estimates were that wages were 43 per cent. of social income in 1911, and 43 to 45 per cent. in 1924. Mr. Clark quotes 42½ per cent. in 1911 and gives 41·5 per cent. in 1924, 38 per cent. in 1930, and 41·3 per cent. in 1931 (p. 72).

The differences between the other items in the Table are none of them of numerical importance, but they call for some explanation.

For line (a) the final figures for 1924-5 were available for II, but the only important change affected the amount of wages first counted and then excluded. In II £25 million tax-free income (added in I) is excluded, and £18 million less is added for adjustment in the date of assessment, also £10 million more is subtracted for over-assessment. I have transferred £35 million from assessable income from the table in II, p. 63, to income under exemption limit so as to obtain comparability with I.

In II account is taken of the effect of the process of adding wife's to husband's income to bring the joint income above the exemption limit. I think the estimate of £15 million is extravagant, but it has little effect on the totals. Allowing for this the salaries (c) agree. For (d) farmer's income is greater in I for the reasons given above.

In (e) the lower average income in II of small employers and independent workers is based on an interesting investigation in Liverpool and its neighbourhood. The sample is much too small for generalisation, even if Liverpool were typical of the whole country; but no certainty can be reached and the amount is not numerically important.

Up to this point the income in II is £95 million or 4 per cent. less than in I.

Whether lines (h), Pensions, or (j), Rates on business premises, should be included or not is mainly a matter of definition.

(k) and (l) are subtractive to obtain the income available at home, and (m) and (n) to remove duplication.