

SERVANTS OF INDIA SOCIETY'S

BRANCH LIBRARY

BOMBAY

6911. 295.

295.

THE DIVISION
of the
PRODUCT OF INDUSTRY

An Analysis of
NATIONAL INCOME
Before the War

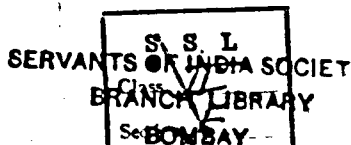
BY

ARTHUR L. BOWLEY, Sc.D.

Professor of Statistics in the University of London

OXFORD
AT THE CLARENDON PRESS

1919



X:31.3.Ns

EJ

69391

OXFORD UNIVERSITY PRESS
LONDON EDINBURGH GLASGOW NEW YORK
TORONTO MELBOURNE CAPE TOWN BOMBAY
HUMPHREY MILFORD
PUBLISHED TO THE UNIVERSITY

Social Service League, Library.

Class...III...Section...K.....

No.....423.....

Date.....



TABLE OF CONTENTS

	PAGE
INTRODUCTION	5
I. POPULATION IN 1911	7
II. THE AGGREGATE INCOME OF THE POPULATION OF THE UNITED KINGDOM, 1911	14
III. THE NATIONAL WAGES BILL, 1911	27
IV. WAGES, SALARIES, AND PROFITS IN THE PRINCIPAL INDUSTRIES, 1907	31
V. SUMMARY AND CONCLUSIONS	47

TABLES

I. POPULATION IN 1911	7
II. APPROXIMATE CLASSIFICATION OF ALL OCCUPIED IN THE UNITED KINGDOM, 1911	11
III. THE AGGREGATE OF THE INCOMES OF RESIDENTS IN THE UNITED KINGDOM, 1911	14
IV. CLASSIFICATION OF INCOME OF ALL OCCUPIED PERSONS, 1911	25
V. SUMMARY OF THE RESULTS OF THE WAGE CENSUS OF 1906	29
VI. CENSUS OF PRODUCTION, 1907	45

V

SUMMARY AND CONCLUSIONS

In considering the division of the product of home industry we must exclude income derived from abroad. The aggregate income of the residents in the United Kingdom in 1913-14, derived from home sources, was probably between £2,000,000,000 and £2,100,000,000. In 1911 it was £1,900,000,000 or less, and of this £800,000,000 (42 per cent.) was received as wages, and £264,000,000 (13 per cent.) or somewhat less was received in small salaries or earned by independent workers or small employers whose income was due almost entirely to their own exertions. In all rather more than one-half was *earned* by people whose annual income was under £160, and when old age pensions and small receipts from property (whose owners' incomes were below the exemption limit) are included, we find nearly 60 per cent. of the whole in the hands of this group.

About 40 per cent. of the whole (£742,000,000) form the income from home sources of 1,100,000 income-tax payers and their families. Of this £145,000,000 certainly was 'earned' as salaries or by farmers, and £190,000,000 certainly was 'unearned' (in the sense in which the word is currently used) and obtained from the ownership of real property or securities. The remaining £407,000,000 is the total of all profits of trades and professions (excluding those which go to persons whose incomes are under £160), and a considerable part (whose amount cannot be ascertained) goes to shareholders and others who take no active part in the businesses. The average salary of salaried persons paying income-tax was about £340, and the average profit (whether arising from use of a person's own capital or

simply from personal exertions) of all persons assessed to profits over £160, may be roughly estimated at £500; this group includes the assessments of men and women in professions as well as those engaged in business.

There was a considerable transference of the income-tax payers' incomes to the benefit of the poorer classes. Not only are old age pensions (already included above as income) drawn from taxation, but the expense of feeding of school-children, much of the expense of education, and on poor-law relief, and other benefits financed from the rates, contributions to national insurance, &c., are mainly deductive from the incomes of the well-to-do, and the actual income of endowed charities (£14,000,000), is included in the £742,000,000 in Table III. No attempt is here made to allocate the expense of national defence and other national expenditure between the classes; but, evidently, in the future it will be necessary to pay very careful attention to the incidence of taxation when estimates are made of the spendable income in the possession of different groups.

In the £190,000,000 distinguished above as certainly unearned is included £76,000,000 derived from house property; though this does not differ essentially from other income derived from ownership, it is well to make clear that in the supposition presently made that all unearned income is nationalized is involved the supposition that those who have provided (as well as those who have inherited) houses receive nothing, and that people who own the houses they occupy are taxed 20s. in the pound on the annual value.

We must certainly allow something for the work of active employers, professional men, and salaried employees, when we are considering surplus income. Let us suppose that each earned income is reduced to £160 per annum. When we have subtracted the incomes so reduced, farmers' incomes and the incomes of endowed charities, from the £742,000,000 of tax-paying income, we are left with about £550,000,000. This may be taken as a maximum estimate of surplus and unearned income that could be regarded as transferable to

national purposes. Actually the cutting down of earned incomes would in fact seriously diminish the power as well as the will to work, and a good deal of income would disappear in the process of transfer. £550,000,000 is then an outside estimate of the part of home-produced income that is the target of attack by extreme socialists.

Out of this sum, however, the great part of national saving is made and a large part of national expenses are met; when these are subtracted only £200 to £250 millions remain, which on the extremest reckoning can have been spent out of home-produced income by the rich or moderately well-off on anything of the nature of luxury. This sum would have little more than sufficed to bring the wages of adult men and women up to the minimum of 35s. 3d. weekly for a man and 20s. for a woman, which Mr. Rowntree in *The Human Needs of Labour* estimates as reasonable.

In fact the spendable wealth of the nation derived from home industry has been grossly exaggerated by loose reasoning. Before the war the home income would not have yielded more than £230 gross annually per family of five, or £170 net after all rates and taxes were paid and an adequate sum invested in home industries.¹ The income brought home from abroad amounted to about £90,000,000,² or £10 a family. The average family is not, however, five as is frequently assumed, but about 4½ persons³; the number of households is not 9,000,000 as just taken, but about 10,000,000, and the average net income of a family would have been £153 from home-product or £162 if income from abroad is included. If this sum is compared with pre-war wages it must be remembered that there are on an average nearly two earners to a family.

¹ An equal distribution of pooled income would make enormous differences to prices, but it does not seem necessary to attempt any estimate here.

² The residue shown in Table III of foreign income is reinvested abroad.

³ The average urban workman's family consists of 1.9 earners and 2.3 non-earners approximately. As Mr. Rowntree's minimum rates the weekly income would be nearly £3.

When it is realized that the whole income of the nation was only sufficient for reasonable needs if equally divided, luxurious expenditure is seen to be more unjustifiable even than has commonly been supposed, and the problems of obtaining a distribution that is more reasonable and of reducing poverty appear more difficult, though none the less urgent.

There are three methods of redistribution : (1) an equal division of the income ; (2) taxation of the larger incomes ; (3) raising of wages. Of these it is not proposed to consider the first ; the effect would be that the capital and labour engaged in producing luxuries and superfluities would be transferred to the satisfaction of more elementary needs. The second and third form the subjects of the following paragraphs.

If we include income from abroad the maximum income open to additional taxation appears to have been £300,000,000 before the war. The whole could not have been taxed at 20s. in the pound without assuming ownership of the sources of income, and an increase in taxation tends to destroy the income by diminishing the incentives to production and to cause income from abroad to be reinvested and not brought home ; but the experience of the war years shows that taxation had not reached its limits.

Social reformers have made many propositions involving the increase of national expenditure. Some of these aim directly at relieving poverty without increasing future production, as, for example, the increase of old age pensions and the lowering of the age to 60 years, and more liberal provision for the ill and incapable. Others involve direct gifts to the population as a whole, such as the supply of better and free education, reduction of expenses of travelling, the provision of parks, recreation, amusement, and libraries ; the subsidizing of houses, the supply of milk and other goods below cost ; by these it may be reasonably argued that the ability and physique of the nation would be improved and productivity increase. Others are directed to the benefit of special groups, with the same beneficial

results, such as the charge of children of widows and of badly paid labourers. There is no doubt that very much could be spent, and it is probable that under very carefully devised schemes a great deal could be spent with advantage.

As regards the raising of wages, it is suggested that we ought to accept the principle that the output of every factory, mine, and farm ought to pay its own wages and other expenses. It is at once clear that only a part of the £250,000,000 possibly transferable from home-produced income can be applied directly to wages. It is shown in Table IV that the income arising from industry and occupation of all kinds, excluding employment by the Central and Local Government, is about £1,577,000,000, of which £570,000,000 goes in salaries (over £160), profits, interest, and rent, while wages and small salaries account for £800,000,000. A great part of the profits arises from professions and occupations to the production of which wage-earners contribute very little, and another part is due to special skill of management, and to partial monopoly, the excess of whose profits is not due to the workers who help to make them. These sums can be reached by taxation, but are not available for the direct increase of wages. Of the industries and occupations where the work of wage-earners contribute substantially to the product we have information as to profits, salaries, and wages for a great group included in the Census of Production and for railways, but not for other transport or agriculture; this detailed information refers to an aggregate of income of about £700,000,000 in 1911, and, though it covers the main productive industries, it deals with less than half the national income. The remainder is shown in Table IV. Since we can only survey in detail a part of the whole, attention should be directed to the relative proportions that go to wages, salaries, and profits, rather than to the actual amounts. It should be remembered that out of the part that goes to profits a considerable amount of saving and national expenses must be met, and the spendable incomes are much less than the gross incomes.

If we give up part of the principle that each industry and firm must pay its own way and suppose the profits of each industry pooled, we can see the amount of profits which can conceivably be diminished to the advantage of wages on pp. 42-5 and in Table IV. In railways in 1911, 39 per cent. of the net receipts went to wages, 9 per cent. to salaries, and 52 per cent. to shareholders, &c. In coal-mining in the same year 75 per cent. (or 82½ per cent. if royalties are excluded) of the value of the net output was paid to wage-earners.

In 1907 from 60 to 70 per cent. of the net output¹ was paid in wages in the case of engineering, cotton, wool and worsted, clothing, boots and shoes, printing and binding, and wood working. Over 70 per cent. went to wages in iron and steel production, shipbuilding, brick-making, pottery, and building, and under 60 per cent. in jute, linen and hemp, bleaching, &c., bread and biscuit making, brewing, tobacco, paper-making, and gas-works.

In the whole group of industries for which we have adequate information, taken all together, excluding railways, it is found that 58 per cent. of the net product (after all other expenses and depreciation are met) goes to manual workers, 4 per cent. in small salaries, 6 per cent. in salaries over £160; in all 68 per cent. goes to those employed. 32 per cent. is left for royalties, rents, interests and profits, advertisement, &c., and this is reduced to 23 per cent. if we count out royalties (as not being the result of the efforts of employed) and allow 4 per cent. for the necessary repayment of or interest on capital invested. How far this 23 per cent. or £133,000,000, together with a relatively small sum (probably well under £10,000,000) for the salaries of managers of companies, is an excessive or unnecessary remuneration for the organization of industry employing 6,000,000 wage-earners and £1,200,000,000 capital and producing £340,000,000 wages is a question that may properly be

¹ Rates and depreciation are subtracted from the net output as shown in the Census before these percentages are reckoned. Advertisement has to be paid for out of the balance.

debated ; it is this sum that formed the only possible source of increased earnings in this group with industries conducted as before the war and production at its then level. In fact, while in some industries a considerable advance may have been practicable, in the majority no such increase as would make possible the standards of living now urgently desired, and promised in the election addresses of all the political parties, could have been obtained without wrecking the industry, whether by stopping the source of further investment or closing down firms whose profits were low. This statement in its general terms cannot, it is thought, be reasonably denied by any one who has studied the facts.

If industry before the war could not afford a satisfactory livelihood to those engaged in it, there is every reason for attempting a radical change. It is no part of the purpose of this statistical analysis to touch on problems of reconstruction, but to prevent the impression that statistics and economics lead only to pessimistic conclusions, a brief analysis may be offered of the possible sources of improvement, apart from beneficial expenditure from taxation.

Before proceeding it is well to consider how far economic factors have changed since the date to which the statistics given relate. The productive man-power of the nation has diminished by the loss of many men, the invaliding of others, and the want of training of the young men who were drawn into the war at an age when they would have been learning their trade ; on the other hand, a certain number of persons who would otherwise have been idle have started work, and a considerable number of women and unskilled men have learnt to perform operations of a fairly high grade. There has been a great lack of ordinary investments in industry, and capital goods have been allowed to deteriorate without sufficient renewal ; on the other hand, a considerable part of war expenditure has gone to supply plant and material useful for warfare, much of which can be transferred to production of civilian requirements. At the same time wasteful methods of production have been eliminated, and it is confidently stated that a great deal has

been accomplished in the direction of increased efficiency; on the other side, the dead hand of government control has interfered with the pre-war methods of adapting production to visible wants. It is impossible to find the resultant of these forces, but at the best it can only be hoped that the loss in productive power is not very serious nor permanent. There is, at any rate, no proof that, reckoned at the prices of 1913, the national output, when peace has been established, will be greater than before the war, even if there is no slackening of effort.

The large income and lavish expenditure of 1918 was mainly due to the great inflation of prices, and partly due to borrowing from abroad and calling in capital. No one can reckon what the product of 1918 would have been worth at pre-war prices; the unit of value is unstable and unknown. Our only course is to base our reasoning on what can be known, and that is the pre-war product. The division of the product has been and will be profoundly affected; property has changed hands, some has appreciated, other lost its value. Some persons have accumulated large holdings of war stock and bonds, others will have to pay the interest on them. Nominal incomes, when the national receipts and expenditure again balance, will be very different from spendable incomes, and the larger the apparent income the greater will be the deduction that will be made by taxation. But none of this affects the total divisible product, and there is little reason to think that the existing distribution of income among individuals, or the existing rates of remuneration for capital, land, management, services or labour will be permanent. Economic forces will produce effects which cannot be forecasted.

In spite of the fact that so much is unknown, it is none the less possible to point to some general conclusions as to the possibility of increasing the total that wage-earners can draw from the value of the goods they help to produce.

The first idea of a workman, who realized that in his industry profits and salaries were already as low as possible, while his own earnings were unsatisfactory, would naturally

be that the price of the product should be raised till all concerned in the output had a 'living wage'; and the first and most obvious criticisms would be (1) that while this can be done in a single industry it would result in a smaller sale of the product and less employment¹ in that industry, unless there were compensating factors, and (2) that if wages generally were raised from the proceeds of higher prices, then all prices would be higher and the purchasing power of the new wage would be no greater than that of the old. So far as the members of the working-class are working for one another—*A* bakes bread, *B* hews coal, *C* mends boots and *A*, *B*, *C* exchange (through the medium of money) with each other—it is obviously true that a uniform rise of prices benefits no one, while a rise in one industry is at the expense of another. Thus unskilled wages could be raised at the expense of skilled workmen, coal-miners' wages at the expense of all other workmen, and so on, but a general rise would be nugatory. But so far as the poorer sections of the population are providing commodities for the richer the criticism is not valid. If I pay my gardener more, he has more purchasing power and I have less; he can buy more beer and I can buy less whisky, and when a shifting of production has taken place from the distillers to the brewers the immediate effects of the change are over, and till I produce something the gardener wants and raise the price of it I have no compensation. It is true that I can reduce my expenditure on gardening, but that will not help me if the whole working-class takes similar steps and the prices of all commodities are raised.

If we take no other factors into consideration the question is simply to what extent the working-class are producing for each other, and to what extent they are producing for

¹ A request for a higher week's wage and such shortening of hours that the same numbers are employed for the diminished output, i.e. more money for fewer things, not more money per thing, can only be satisfied if the demand is inelastic and there is no substitute or alternative supply and prices can be raised greatly, and if other workmen can be kept out of the industry, in those cases where profits and salaries are already at a minimum.

other groups the prices of whose services or the rent for the use of whose property can be supposed not to rise. The target open to attack by this method is the same as by the method of taxation or appropriation ; but a policy of raising prices, even if it is not checked by economic factors as it would have been before government control, results in very great inconvenience during the considerable period that must elapse before a new equilibrium is attained ; in each trade where the price of the product is raised there is a smaller sale and consequent diminution of employment, and to every group that purchases the dearer articles there is a loss till they also can raise their wages. After all the inconvenience, the only possible benefit is that one miscellaneous group of persons, some of whom have large and others moderate or small incomes, will have smaller real incomes, and another miscellaneous group, some of whom have moderate and others small incomes, will have increased real incomes ; those now very rich will still be much better off than people of moderate means, and the unskilled workman and work-woman will still be poor as compared with the highly paid man. The 'error of distribution' will remain, though slightly modified.

Another method of raising wages is at the sacrifice of the upkeep and development of the buildings, plant, and machinery necessary for future production, as has to some extent been the case during the war ; but this course is evidently suicidal. Similarly an attack can be made on the remuneration of capital with the effect of checking its supply. Possibly the rate of interest might be forced down a little from whatever level it attains, but the attempt might have dangerous results. The question of the amount of interest that ought to be paid is quite distinct from the question of the ownership of capital. The ownership can be affected by a capital levy or alteration in the laws of inheritance or by increased death duties or by confiscation, but still some payment would have to be made for the use of capital as argued above (p. 39).

Wages can be raised temporarily by legislation or by the

shock tactics of special groups of men whose services for the moment are essential. But no individual or company can be forced to employ people at a loss, and there is evident danger of unemployment on a large scale if workmen put too high a value on their services. It has been shown above that, unless new income is created, there is no fund from which unemployment on a large scale can be subsidized; and there is little reason to think that the State could furnish productive work at the higher wages without a loss when competitive employers failed to do so.

There remains the one hopeful way by increasing production, care being taken that the increased product is well distributed. This will not come suddenly nor by act of Parliament, but there are great possibilities in certain directions. Capital can be better applied to production, as has been shown during the war, and it is probable that an effective demand for higher wages would force its better and more economical use; but it must be remembered that skill of management is limited, and the best results cannot be universally obtained. At the same time, on the side of labour there must be no waste of productive power, but plant and machinery must be put to their maximum use. Greater encouragement of skill, more facilities for promotion from unskilled work to skilled, better education, and an improved physique which may result from higher wages, more leisure and better environment, together with full opportunity for the use of all intelligence, strength and skill, irrespective of sex, and without undue insistence on pedantic rules as to previous training, would result in a much fuller use of the latent abilities of the race than has hitherto been possible. Long hours and excessive exertion on the other hand militate against production, and to prevent these is one of the tasks of those who organize labour. These improvements, however, will need time, skill, and patience, and they have not yet taken place. There is a great risk of disappointment and failure, if there is an attempt to grasp the fruits of progress before the tree that might produce them has been cultivated.

This analysis has failed in part of its purpose, if it has not shown that the problem of securing the wages, which people rather optimistically believe to be immediately and permanently possible, is to a great extent independent of the question of national or individual ownership, unless it is seriously believed that production would increase greatly if the State were sole employer. The wealth of the country, however divided, was insufficient before the war for a general high standard; there is nothing as yet to show that it will be greater in the future. Hence the most important task—more important immediately than the improvement of the division of the product—incumbent on employers and workmen alike, is to increase the national product, and that without sacrificing leisure and the amenities of life.

CHECKED
2003-04

APPENDIX

In the Report on the Census of Production (Cd. 6320, pp. 21-34) the National Income is estimated by adding up the values of goods produced, services and net imports. The following table shows the various items, which are admittedly only approximate. It is comparable with Table IV above in some respects, but there are differences in classification and in date, and income from abroad is excluded from Table IV.

INCOME, 1907	£ millions
Gross output of industry, mining, and agriculture, excluding duplicates, but including imported materials to value of £380 millions.	1370
Carriage, merchandising and retailing of home-goods	430
Duties on home-goods	50
Imports ready for consumption, valued at ports	220
Duties on carriage, merchandising and retailing of imports	140
	<u>2210</u>
Subtract exports	465
Total value to purchasers of material goods available for consumption, maintenance of capital or saving	1745
Subtract maintenance of plant, &c. (£175 millions) and of consumers' stock (£15 millions)	190
Remainder, available for consumption or saving	1555
Add value of personal services and occupation of houses	375
Add new investments abroad	100
* Total income	<u><u>2030</u></u>

APPENDIX

CONSUMPTION AND SAVING, 1907		£ millions
Personal consumption: material goods		1325
Services and houses		375
		<hr/> 1700
Additions to capital and stock at home		230
Additions to investments abroad		100
	Total	<hr/> <u>2030</u>

X: 31.3.15

E

69391