

Marshall's evidence before the Committee appointed to inquire into the taking of the Census (1890)

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INTRODUCTION

When Keynes prepared his edition of Marshall's *Official Papers* for publication by Macmillan for the Royal Economic Society in 1926, his claim in its preface that the volume 'contained the whole of Alfred Marshall's contributions to official enquiries on economic questions with the exception of his work on the Labour Commission', was quickly disproved. However, no real attempt was made to repair the omissions in this respect by Keynes as editor of Marshall's *Official Papers* until seventy years later when I prepared a supplement to Keynes's collection for publication by Cambridge University Press for the Royal Economic Society in 1996. This included Marshall's evidence on education in Wales and Monmouth Shire (1880), an additional item prepared by Marshall for the Gold and Silver Commission (1888) and, by far the major part of the volume, material attributable to Marshall from his membership of the Royal Commission on Labour (1891-1894), which Keynes as editor had deliberately omitted. It also included a Treasury paper on the fiscal policy of international trade as a relevant associated item.

A recent discovery by a vigilant bookseller, Ian Smith (of Bernard Quaritch Limited, Antiquarian Booksellers since 1847, 8 Lower John street, Golden Square, London), has uncovered a further relevant item, Marshall's evidence on 7 March 1890 to the Committee appointed.... to inquire into certain questions connected with the taking of the Census. In its published report (London: HMSO 1890, Cmnd 6071) Marshall's evidence was printed on pp. 60-68. This Committee was chaired by Leonard Courtney, a good acquaintance of Marshall, with whom he was also in considerable contact that year in connection with the formation of the British Economic Association (later Royal Economic Society). Be that as it may. Although the Committee's *Report*, including Marshall's evidence, was held by the Marshall Library at Cambridge, and mentioned in its *Catalogue* prepared by Mary Paley Marshall (Cambridge: printed for the Faculty of Economics and Politics at the University Press, 1927, p. 97) where it is simply described as 'Census, Report of Committee on, 1890', I know of no direct reference to this evidence in the Marshall literature. Its contents shed further light on Marshall's immense knowledge of official statistics, in this case as gathered for the census, not only in the United Kingdom but also in the United States and Germany.

Marshall's evidence, here reproduced *in toto*, indicates in the first place his dissatisfaction with current practice in gathering information for the census regarding the occupations of householders and the consequent need to provide better training for census collectors on this important matter, especially with respect to those operating in country districts rather than in large towns. Carelessness in gathering information on this score, Marshall argued in his evidence, could throw into doubt conclusions derivable from marriage data, more specifically age at marriage for various occupations, with implications for the validity of certain theories of population. Marshall also indicated during his evidence that this was a matter of long-standing concern to him, and that he had discussed it with respect to practice in the United States Census with eminent authorities of the calibre of 'General [Francis Amasa] Walker'. A table Marshall read into the evidence gave an indication of superior German practice in this regard. A subsequent table shows the quality of European data with respect to the distribution of national population by occupation in terms of both occupied population and population as a whole, for the last of which no English data were publicly provided according to Marshall. However, when questioned further on this matter, Marshall seemed not very clear on the details of the procedures which made the German statistics superior. Partly in line with Charles Booth's evidence presented earlier that morning (and to which Marshall had listened), Marshall suggested that improvements could easily (and relatively cheaply) be made to remedy these shortcomings in industrial data collection.

The evidence here reproduced is therefore interesting as providing another instance of Marshall's preoccupation with the accuracy and usefulness of statistical information, and his interest in the details of its compilation. His well-recognised status as Cambridge Professor of Political Economy probably explains his presence before the Committee to give evidence, though he may of course easily have volunteered for this task. Nothing on the subject of giving evidence to the Committee is mentioned in surviving correspondence as published, though it is quite possible that relevant Marshall letters survive in the appropriate government departmental archives. No attempt as yet appears to have been made to trace such parts of his correspondence, and I definitely did not do so systematically when preparing my Marshall biography.

Marshall's opening statements to the Committee are particularly interesting and can be briefly quoted by way of conclusion. 'Statistics are the straw out of which ... economists have to make the bricks' but that, unlike the case with the vast majority of English economic statistics, 'in the matter of [English] industrial statistics, ... [I cannot look at them] without a feeling of shame'. This was a deep felt lament from a person by then regarded as the nation's leading industrial economist, even if his *Principles of Economics* (although in the press) had by then not been published. Moreover, these remarks perhaps provide a further reason why Marshall later regarded his experience as a member of the Labour Commission as 'such a valuable education'.

TEXT

Report of the Committee appointed by the Treasury to inquiry into certain questions connected with the taking of the Census with minutes of evidence and appendices and a copy of the treasury Minute appointing the Committee.

7 March 1890

Professor Alfred Marshall called and examined

1459. (*Chairman.*) You are Professor of Political Economy in the University of Cambridge? – Yes.

1460. And you have paid special attention to the industrial statistics? – Statistics are the straw out of which I, like every other economist, have to make the bricks; and though I am not a constructor of statistics, I am using them every day.

1461. And you have hitherto been dissatisfied with your straws? – Well, with regard to every other important class of economics statistics published by the English Government, I am proud of my country. In the matter of industrial statistics I am compelled to go as far as to say that I cannot look at them without shame, and that I have never heard any economist say that we have a body of industrial statistics which could be looked at by any Englishman without a feeling of shame.

1462. Will you explain what you regard as the most flagrant deficiencies? – Might I perhaps first say, that I am not in any way making an attack upon the Registrar-General's Department. I think that the excellent work that they have done in vital statistics, to which they give their chief attention, would alone render such attack out of

place; but when I further consider that the industrial census has been done, to a great extent in overtime, I think that everybody must feel great gratitude and respect for the Registrar-General's Department. The one thing that I want to argue to-day, is that the work that ought to be done by the Industrial Statistics Department is at least as large as the whole work of the Registrar-General's Department; and that a strong body of men ought to be always steadily working at it; that the problems are not such as can be settled straight off in a short discussion, but that they want careful thinking out by trained people, with full knowledge of detail. The particular faults that I find in the industrial census fall under two heads; firstly the extreme meagreness. The English industrial statistics scarcely touch upon many of those things upon which the industrial statistics of almost every civilised country except England, so far as I know, do treat; and the English economist, when he has to estimate the extensiveness and the intensiveness of the changes going on in his own country, has not the material at hand, because the range of English industrial statistics is so narrow. Secondly, the statistics published do not explain themselves. The occupation census is a series of conundrums, the key of which may be, to a certain extent, in that Dictionary which the Department is said to have; but that dictionary is indispensable to every person who wants to solve these conundrums. And, lastly, so much of the industrial census is obviously inaccurate, that I have found that every economist with whom I have spoken says, that so far as industrial statistics go, we must guess; we cannot rely upon what the Government publishes. The memorandum that was presented with regard to this subject was rather strongly worded, considering that it was signed by every economist, I believe, of eminence in the country, who was not precluded by his political position, with the exception of one. That one was rather appalled by the great number of separate statements in it, and said that as he had not specially considered the census statistics he would rather not sign. In England agriculture is a quarter of that large group which, on the continent, is generally called "Industry" (that is manufacture, mining, building, &c.). In most other countries agriculture is considerably larger, in some cases twice as large as "Industry"; moreover, the specialization of manufacturing industry in England is more firmly established than in any other country, and it would be possible to have more trustworthy and more minute statistics with regard to the manufacturing industries of England than with regard to any other country. When we observe changes in wages, for instance, or when we see any statements made with regard to the economic condition of any class of the people, we know that the popular impression with regard to the number of persons affected by that event is likely to be mistaken. If one reads the newspapers, particularly those that circulate among the masses of the people; if one reads statements as to the condition of the working classes in England, in foreign treatises based, to some extent, upon newspaper reports, one finds that disproportionate importance is often attached to facts relating to classes of the community which one knows really to be very small; but how small they are we cannot tell the census does not give us the requisite information. It seems to me that the first aim of the classification of an industrial census should be to group together, as far as possible, those homogeneous industrial groups of people who have skill of about the same kind and degree, who are of the same social status, who are able to act together in industrial and social questions, and who are fitted for being the subject of generalizations of importance in economic and social studies. There is no attempt in the existing census to bring out the existence of any such classes of people. I would give instances. The census does not tell us how many barristers there are, nor how many hewers, nor how many ironfounders, nor how many compositors, nor how many weavers. I have jotted down the names of some trade unions, with which I happened to be acquainted, representing compact, highly organised bodies of people, whose existence as groups is not recognised in the Census. They are blast furnace men, boot and shoe riveters and finishers, cabinet makers, glass blowers, patterns makers, forge-men, power-loom carpet weavers, brick makers, frame-work knitters, barge builders, razor grinders, wire workers. Perhaps the kind of fault that I find can be well illustrated by taking three examples: - One, ironfounders; they are a very important class of people, and they have found that the absence of any information by the Government as to the number of people in their trade is so great an evil, that they have, at a considerable expense, made a formal census of their own body. I have here an extract from the proof of their next monthly report, recommending that they should go to the expense of repeating that census.

1463. (*Mr. Whitmore.*) Is that done by a trades union or how? - A trades union. This paper was not prepared for use at this committee; it was already in type when I wrote to Mr. Hay, the secretary of the ironfounders' union, to ask him whether any further progress had been made with regard to the census of his trade.

1464. When was that taken? - The extract itself explains: "The organising of our trade for the benefit of all who are engaged in it has ever been felt a necessity, and it is no less a necessity to day than it was at any previous time. To prove this need, and by way of ascertaining the relative numbers of society men working at moulding, recourse has frequently been made to the census and other returns. In those returns it has invariably been found that iron moulders have been grouped with other workmen. This has given them an incompleteness from which no reliable calculations could be made. In May of 1884, however, the officers of each branch of our society collected information in their respective districts, both as to number of members, number of non-members, number of boys, scope of work done, rates of wages, and hours of labour. Whilst there were many places outside the scope of that inquiry, where moulders were employed, yet, as far as it went, it was the most complete and most reliable piece of statistical information ever obtained concerning our branch of industry." I may say that I have talked to many trades unionists, and they have deplored the fact that they can only give the very loosest guess as to what proportion of the people engaged in their trade are enrolled in the industry. It should be, I think, the very first duty of an industrial department to give that information. My next instance is that of the cabinet makers. The cabinet makers, as everybody is aware, are a highly skilled group of carpenters. They are a very fine class of men, and they would as soon dream of touching a needle as they would of flying, and yet they are classed with upholsterers. That seems to me to be a vicious classification. I will next take wire workers. Now it would not be a very bad plan to classify wire workers with basket makers, or with tinmen; while wire makers are a highly skilled set of people who belong to the same class as the rollers of rails for railways. You could take many people out of a steel rail factory and set them to work in a wire factory. Next coming to this point, that as at present published the statistics are a set of conundrums. I want to urge the very great importance of publishing, as the German census does, a detailed list, arranged on two plans, one I suppose would be the dictionary already existing for the private use of our own Census Department, that is to say, an alphabetical list of all the 6,900 (that is the number, I think, in Germany) different denominations, with the class and sub-class to which each is to be assigned, and secondly a systematic list with each class, divided into subordinate classes, and in each division—

1465. (*Chairman.*) But before we go into that I think you had better be examined in detail as to the points on which you have gone. You are complaining that the census returns do not give specific information as to the trades and subdivision of trades which are followed? - They do not profess to; yes.

1466 You are aware how the information is got? - Yes.

1467. By asking each householder to state for himself what his occupation is? - Yes.

1468. Do you think that the information of the specific character which you require could be got in a satisfactory form by the method pursued, of asking each householder? - Subject to certain changes being made in the method in which the work is organised.

1469. But could the householders be trusted to return the information sought for, if they were asked in a proper way? - I do not trust much to the householder, but I think that the enumerators ought not to be fully unskilled. I do not understand that they have ever gone through any systematic drill, and it appears to me impossible that an industrial census can be gathered together which is of any great value unless the enumerators are drilled in their duties before they are sent to perform them.

1470. Then the information you desire you consider impossible of attainment through the householders' - No, I would have the sheet filled up by the householder; but I would have the enumerator instructed to refuse a sheet which was not properly filled up, and trained in order that he might know when a sheet was improperly filled up.

1471. But if a person being a cabinet maker puts himself down as an upholsterer? - Oh, working men would not do that.

1472. No employer would do it? - An employer might be both an upholsterer and a cabinet maker; but then the employers are a different class, and must be treated in fact more or less differently. Besides, it does not very much matter what they do comparatively.

1473. (*Mr. Whitmore.*) You mean because their numbers are so much smaller? - Partly because their numbers are so much smaller, and partly because they cannot be classified exactly. When a man is a dealer in cabinet making and upholstering, when he would, for instance, undertake to have this table or this chair made, it does not very much matter what he calls himself, but the man who has made the wooden part of the table would not dream of putting the leather on the top of it, still less would he dream of upholstering the chair.

1474. (*Mr. Booth.*) That is to say, if there are two lines for cabinet makers and upholsterers, it would follow necessarily that each man must choose between the two, or if he declared both, that the Registrar-General, as he now does, would take the first or the more important one and declare him under that? - Yes, that would be a way of doing it, but I do not see at all why they could not do it with that minuteness with which many things of this kind are inquired into in Germany.

1475. (*Chairman.*) How is it got in Germany? - I rather wanted to take the German census later on, but if you like I will go to it at once.

1476. The basis of the whole procedure of the census is the first return. If the first return cannot be trusted to give us the materials and the information which you desire, we must consider the possibility, either of abandoning the search for those materials or of altering the first return? - Yes, but I want to alter that return. I may say that the householder's schedule used in the German census is so elaborate that I should hardly venture to propose, at all events for this generation, that England should attain to such a pitch of civilisation.

1477. You admit that the enumerators' co-operation is essential to get the information you desire? - Yes, but I do not consider that there is any skilled enumeration at present.

1478. And you are aware how the enumerators are chosen? - Yes.

1479. Do you think that the present enumerators could be trusted to get you the further information? - If properly drilled. What I would propose would be, that they should be appointed a fortnight before their work began; that since the difficulties as to occupation would arise chiefly in towns and industrial centres, that they should go, say every other evening, to receive a couple of hours' lesson. That lesson should be given by a person sent down or appointed from the central office, who should explain to them what their functions are, what the purposes of the census are, what are the difficulties; and after he has gone a little way, he should put them through that sort of drill through which the Post Office clerk is put. I believe it is usual to examine those clerks by submitting to them a great number of badly directed envelopes, and telling them to say what they would do with those envelopes. I would suggest that towards the end of their drill they should be given a great number of lithographed forms, which should be prepared at the central office, those lithographed forms including errors and omissions found most commonly to occur. Those forms should be handed round to them, and they should be told to write on the side of each such form what further information and what corrections were needed. If that were done I think it would be possible to attain to some such degree of minuteness as is attained in other countries.

1480. You say it would be principally required in the towns; do you propose to have a different machinery for the town and the country? - No, only I was considering then the expense of getting the enumerators together in one room. The expense of getting the enumerators of a town into one room would not be great. But there would be travelling expenses and loss of time, for which something must be allowed, if the enumerators of a country district had to be collected into a central town. That, however, is only a small matter of expense.

1481. It would involve the attendance of the enumerators every other day for a fortnight, that is to say, a week's evenings? - That is the kind of thing I had on my mind. I do not wish to insist on any particular amount of drill.

1482. And the presence of some instructor from the central office? - Yes.

1483. Have you considered in what proportion that would increase the cost? - I am very revolutionary with regard to cost. I would make a remark or two about that.

1484. You may be very revolutionary in your desire, but are you hopeful of being revolutionary in accomplishing it? - I think that if it can be brought home to the English public that England is, so far as industrial statistics go, the country that ought to lead the world; and yet, practically, is excluded from the list of civilised countries as far as industrial statistics go, the public will feel that it is reasonable to spend three times as much as is now spent on the census. I wish now to lay stress on a point that was made in the memorandum. We are the only civilised country for which agriculture is a comparatively unimportant industry. We are the only important country which, while having thorough businesslike, systematic statistics with regard to agriculture, yet has practically none with regard to most branches of industry. I was allowed to see statements of the cost of the census, which I believe is 133,000*l.*, inclusive of printing. The cost of the agricultural returns appears to be 15,500*l.* per annum, exclusive of printing. Probably taking a low sum, we might take it at 20,000*l.*, inclusive of printing. That, for the 10 years, makes 200,000*l.*, that is to say, that although agricultural employment is, at the outside, only one-eighth part of the whole employments in the country, we spend upon agriculture more than we do upon all the rest of the industries of the country, including agriculture. And it seems to me, therefore, that if we are prepared to spend upon cotton-spinners or iron-moulders half as much per head as we do spend on agriculturists, we shall spend a great deal more than three times as much as we now spend on general industrial statistics, and that any request leading up to trebling the expenditure is very moderate as compared with our own expense on agriculture, the only industry which the Government has yet regarded seriously, or as compared with the expenditure on industry in general by other civilised governments. The cost of the American census was just about 1,000,000*l.* I do not think it was very wisely expended. The Government would not allow General Walker to have a free hand, and to decide how it should be spent, but still the fact that they spent 1,000,000*l.* on it, and that an equal amount per head, 5*d.* per head, was spent on an independent census by the Government of Massachusetts, show that they consider that an industrial census is an object that is worth spending a good deal upon.

1485. (*Sir Brydges Henniker.*) Have you seen the estimate; you are speaking of the last census in America? - Yes.

1486. Well. I believe the estimate for the forthcoming one is 1,500,000*l.*, I do not know if you have seen it? - I have not seen it. But that will include a great number of things which, I think, the majority of statisticians do not want. I do not propose to regard the American statistics as a model to copy; it is the German statistics rather that I have in view.

1487. (*Chairman.*) Perhaps it would be convenient if the committee examined you upon this question of the first inquiry before proceeding to the others? - Yes; there are one or two things bearing on that point that perhaps I should mention.

1488. Very well? - In the Registrar-General's report for 1885, there was, to my mind, one of the most important statistical tables, if it were true, that I have ever known published. It gives the ages of marriages of people of different occupations. If it were true, it would prove that what has been a commonplace with all economists, as far as I know, and all vital statisticians in every country in the world, is inaccurate. It gives the ages

of miners at 23-56, textile hands 23-88.

1489. Marrying ages? – Marrying ages; shoemakers and tailors, 24,42; artisans, 22,85; labourers, 25,06. Now, everybody has hitherto put labourers down at the bottom. The table was so fascinating that I went to the Registrar-General's office to inquire what the interpretation of the figures was. I have to express the very heartiest thanks for the extreme cordiality with which I was received, for the frankness with which everything was shown to me; but when I came to look at the instructions which were given to the enumerators as to the way in which they should class the people, I was much puzzled. In particular, I found that bricklayers' labourers, that is the only point that is fixed in my memory, that bricklayers' labourers are entered as bricklayers, that is as artisans. Now, bricklayers' labourers are, of course, an entirely different grade from bricklayers, and speaking properly, there are no such people as bricklayers' labourers at all. There are riveters' labourers; a riveter's labourer when he is discharged from employment in that system of riveting would generally wait till there is another riveter for him to assist, but when a house is being built, a bricklayer's labourer, when the bricklayers pass on to another building, generally remains and works for the plasterer. Technically they are not bricklayers' labourers at all. I have, however, no doubt that, even if the schedules of occupations on which these figures were based were reduced to a systematic order, their results would still be found to modify considerably opinions that have been held by economists, as far as I know, in all countries of the world.

1490. Was that table of marrying ages derived from the census? – No, but it came from the same body of instructions as were used for the census, as I understood. It was, anyhow, in the Registrar-General's Department.

1491. Yes, but the Registrar-General has a return for marriages, and, I suppose, in the marriage certificate the bridegroom declares his occupation and his age? – Yes.

1492. And it is from that return that this return was compiled? – My point is that I wanted to know who are included among artisans and who among labourers in that table; and I was shown what, I believe, was that part of the census dictionary which related to artisans and labourers in the building trades.

1493. Yes, but has it any bearing on these marriage returns? – I am groping in the dark, of course, but I should suppose that those ages of marriage were derived from the entries made in the marriage certificates by the authority of the bridegroom? – Quite so.

1494. And unless the officiating clergyman, or the registrar is there furnished with the dictionary, you are not likely to get a more accurate return? – That is not my point. My point is that when the returns had been made up, the question arose whether a man who had entered himself as a bricklayer's labourer on the marriage registry should be classed as an artisan or a labourer; and in accordance, as I believe, with the instructions on which the occupation census was based, I certainly understood that I was told so, the orders given to the enumerators were that he should be classed as a bricklayer; and I was told, I am certain almost, that in the census bricklayers include bricklayers' labourers. I am quite sure of that now, because we worked out a good many percentages with a calculating machine with regard to bricklayers and others from the entries in the occupation census.

1495. Have you anything else to add on that particular point? – Nothing else to add on that particular point. But perhaps I should go on with this part of what I have to say. I am quite aware that the groups cannot be of equal size, but the present discrepancies are, I think, unnecessarily great. At present, out of 11,000,000 occupied people, 4,000,000 are distributed among six occupations, 4,000,000 more among 40, 3,000,000 more among 350. Among those 350 there are a great many that are not of very serious importance, for instance, 705 fossil and coprolite diggers. Of course, they are mere ordinary navvies. A navvy who can dig fossils can dig anything else. Then again, we have as separate entries pencil makers, 232, figure and image makers, 418. Of course, we are glad to have this information, we would rather have it than not; but when it is said that there is no room for any further information, we say we would rather have these people classed with some other large group, and not have entirely ignored such a body as the ironfounders.

1496. (*Sir Reginald Welby.*) I suppose you would say, would you not, that the first thing to be attained is accuracy in the statistics? – Accuracy of results based upon minuteness of data. In an answer that has been made to the Memorandum to which I have referred, a very obvious fact has been emphasised, that accuracy and minuteness vary in opposite directions. That is, I need not say, a fact so obvious which I should not explain it at length to a class studying the elements of statistics. It is one that will commend itself as obvious to every intelligent person; but it is no answer to the statement in this Memorandum that we desire more accurate statistics; the fact being that we have full statistics on many subjects on which Government statistics are silent, as anybody can see by referring to such a book as Mulhall's Dictionary. People publish such guesses because the Government does not supply what the public wants to know. We want more minute Government data, leading up to more accurate results and fuller results.

1497. But it would be essential that those minute data should be accurate? – Not necessarily.

1498. I beg pardon, I think we must be at issue upon the word accurate. The minute data could not be of any value if it were untrue? – It is a question of degree; no statistics are perfectly accurate. My position may be illustrated in this way. If you wanted to find out how many people there are in a room when the light is bad, you might say: - "I can see there are 50 people in the room; but I cannot be quite sure how many are women, and how many men. I think there are 30 men and 20 women." The accuracy of the total is not impaired by the fact that in seeking for minuteness you may have classed some of the details wrongly. Now, there has been no proposal made in that Memorandum which would tend to take away from the accuracy of any fact that at present is given, because the totals which are now given would be retained, but supplemented by farther details.

1499. I think we should certainly be agreed upon one point, that the statistics to a very large percentage must be true to be of value? – Certainly.

1500. And I noticed that you were speaking in great praise of foreign statistics, as compared with our own, I noticed also afterwards that you rather limited your praise of the United States? – I spoke, I think, of the continent. Unless by accident, I did not say anything in big praise of the general plan of American statistics.

1501. I beg your pardon, because I was going to ask you a question with regard to that. The Registrar General has pointed out that they are going to spend 1,500,000*l.* I was to refer to a thing which I have read. I am not able to speak with very much information, but not very long ago I read I should say a most scathing criticism upon the United States census report of industry? – Yes, I agree with the greater part of that criticism. I have nearly all the American statistical publications; I have had long conversations with General Walker, who is quite as well aware of the weakness of the United States statistics resulting from their undertaking too much in some directions as anybody can be.

1502. This criticism showed that with the immense powers of minuteness in industrial classification, if the critics were right, the results were so untrue that instead of being revolutionary in expenditure, and spending 1,500,000*l.* upon it, you might as well have taken the figures and written them down out of one's head? – I cannot agree to that. I think highly of some parts of the United States statistics, I am continually referring to them, because they throw an indirect light – we ought to have direct light from our Government – on the conditions of our own country. I think the labour spent on them has been somewhat ill directed, the representations of the skilled officials have not been attended to by the Government, but still I think there is an immense deal in them that is of very great value.

1503. I was asking you a question about the value of the accuracy of the statistics. I think we have heard before from Dr. Ogle that at present the information that is acquired is not satisfactorily given by the householders under the present system, that is to say, that it is very difficult to get accurate information from the householders? – That

is on the supposition that the enumerator is not drilled in his duties.

1504. It struck me therefore that to ask for much more minute information might very probably lead to very inaccurate results being given. Would you not be afraid of that result? – Not in the least. I think all that is wanted is that the enumerator should be drilled as to what he is to accept and what he is to refuse. For instance, if a person puts himself down as a factory operative, the enumerator has to say “that is not filled up at all.” I think that if this assistance be given to the householder by the enumerator (which is not now given), it would more than counterbalance the extra difficulty of the returns, not any very great extra difficulty after all, that I am asking for.

1505. You do not think that in such a case, that in obtaining such minimum information as that of which you speak, it might not be got rather from the trades at the time of the general census, when certainly the magnitude of the task makes the testing of the accuracy or inaccuracy of the return very difficult? – I have no distinct opinion on the question whether the industrial census should be taken at the same time as the vital statistics or not. My own inclination is rather for separating them, but I do not wish to argue in favour of any particular mode of procedure. The one thing, and the only thing that I care for, is that this Committee should report that the work of collecting industrial statistics is one of the very greatest weight and importance; that this country is behind other civilized countries in this matter, and that it is imperative to appoint a strong department with at least one trained economist in it, that should set to work at once, not with the hope of making the next census creditable to the country – that is past praying for, the time between now and the next census is altogether inadequate for the work to be done even for a strong department, to get the census into a form in which it will stand comparison with that of Germany, - but in order that the members of this department being on the inside, and seeing what is done in 1891, may be able in 1896 or some other year to organize a census which will stand comparison with the German census.

1506. You say for the purpose of improving the returns given in at the census, you propose to trust to the drilling of the enumerators. Now, from what we have heard, it seems to me that while that might be possible in big towns, it would be extremely difficult in the country. It would be very difficult to get people together, men whose enumeration districts are scattered, and therefore live at considerable distances, to bring them together every night for a fortnight, but if this drilling does not take place, I venture to say we should be in a worse position than before, because we should be trying to get more minute results without improving the machinery by which the results were obtained? – I am not asking for any very great alteration in the schedule. No doubt if we have a strong department they will in the course of years make the householder’s schedule entirely different from what it is now, but I am not asking for any changes that would bring in any way the complexity of our schedule into comparison with the complexity of the German schedule. I am asking for very small changes in complexity. So far as the country people go, I want rather to lay stress on the fact that the difficulties in classification that arise are chiefly town difficulties, and that the enumerators who do the work over the country might do with a smaller quantity of drill than the enumerators in town. I think if they came up for a couple of days straight off, I think that might do; or even one day, perhaps.

1507. The information I wanted to elicit from you is what amount of drill you would think necessary in the country? – Very little drill, I think, generally, very little drill.

1508. (*Sir Bridges Henniker*.) Who are to be the men who would drill them; what class of men? – So far the towns go, where the chief difficulty is, I think everything might be done [sic] under the direction of the factory inspectors, who have the knowledge already, and are the only set of people who have.

1509. (*Sir Reginald Welby*.) There is one more question I should like to ask you with regard to this. Up to the present, the evidence that has been given us has been very much concentrated upon the desirability of having a quinquennial census. I rather gather that evidence has gone rather to the point, I think, of improving the census generally? – Yes, the one thing I care about is a strong specialized department working continuously at it.

1510. But I wanted to elicit from you whether you were proposing that the Government should enter upon the task, first of all, of making the census much more perfect, and at the same time undertaking a quinquennial census, or if you are so rightly anxious to get the census put upon what appears to you a more complete and satisfactory footing, would you think that more desirable than attempting at the same time a second census during the decennium, doubting the number of censuses taken in a given period? – I believe the quinquennial census is desired chiefly for the purpose of vital statistics. My interest in vital statistics is not so great as in industrial statistics, and they are already so well done, that I rather leave the interests of vital statistics to be represented by others. I do not think that anybody who is specially interested in industrial statistics cares very much for the quinquennial census for itself; their feeling is that there is no trustworthy census at the present, and they want one; and if the formation of a strong department should lead to the returns being made once in five years instead of ten, they would be glad, but that is not their first object.

1511. Their first object is the improvement generally of the census machinery? – Yes, the improvement of the accuracy of the returns and a widening of the area of subjects taken.

1512. (*Mr. Booth*.) And of the machinery? – Yes, of course the machinery.

1513. (*Sir Reginald Welby*.) I conceive the machinery is the desirability of having more efficient enumerators; I conceive that to be what you think the machinery? – Well, the first thing I want is the set of strong men in the central department who devote their whole life to it, and who would feel ashamed at seeing side by side the returns of the German census and our own, as they are at present.

1514. (*Sir Bridges Henniker*.) Would you take it out of the hands of the Registrar-General? – I do not care whether it is in the hands of the Registrar-General or not.

1515. You would form another department? I would form a department.

1516. You would lay stress upon that? – I would lay stress on the work done being the work of people who devoted their whole lives to it, and made it a matter of pride to make it as good as possible.

1517. (*Chairman*.) But it might be a part of the Registrar-General’s office? – Yes, that is a matter of detail with which I do not concern myself.

1518. (*Sir Reginald Welby*.) Would your point go so far as this, that there ought to be a Government statistical department embracing all statistics, or are you now only speaking of a department dealing with matters connected with the census? – The suggestion that I should wish to make is one that was practically contained in a letter from Sir Thomas Farrer sent to Mr. Booth when he wrote about the Memorandum, that in his opinion what was wanted was a centre of the organization of industrial statistics, not a centralization of collection. Separate departments may continue to collect as now, but there should be one central office which should organize the general plan and digest the results.

1519. Of all statistics? – Of all statistics; and organize the general plan and digest the results, but not necessarily administer each branch. That represents my opinion exactly.

1520. I asked the question because some years ago the subject of a general statistical department was inquired into, and the result was a variety of opinions was expressed upon it. The idea then was of a central department that digested the statistics and put them into form for publication and use, the statistics themselves, the trade statistics being collected by the Customs, for instance, vital statistics by the Registrar-General, and so on. May we take it that that would represent the view you take? That is it; that is the view I take, yes.

1521. (*Mr. Booth*.) You would conceive that the difficulties in the enumerators way would be very much less in the country than in the towns? – Very much less.

1522. So that the difficulty of obtaining or drilling enumerators would be equalled by the comparative ease, the greater difficulty of drilling them would be balanced by the greater ease of their work? – Yes.

1523. Then with regard to the expenditure, you do not regard the spending of more money as a certain improvement at all? – Certainly not.

1524. But you think we ought to be willing to spend more money if in that way we can obtain --? – Our plea would be that if the American people are willing to pay 1,500,000*l.* for a result which is certainly deficient in many respects, we might be willing to spend at least 500,000*l.* for a result which, making use of German and continental experience, might be much more valuable. I ought also to say that the physical conditions of America would naturally make the census there cost, I should think, twice as much per head as in England: I refer to the enormous extent of their country.

1525. At any rate, you do not think that if you spent more money it need necessarily be wasted? – Certainly not.

1526. With regard to the accuracy of small data, it depends very much upon the use that is made of them; if the probable error can be recognized you may still use as statistics, facts which involve a certain amount of error? – Yes; for instance, there are 210,000 persons engaged in iron and steel. Now, what I should propose is, that every important iron and steel trade should be entered, and at the bottom iron and steel miscellaneous or non-specified. Then all these separate heads being added up, you would have what you have now, the aggregate number of those occupied in iron and steel in genera, every information you have now, you would have under this other plan, but you would also know how many ironfounders, &c. there are. There might be a few people – small workmen . who were jacks-of-all-trades and did a little ironfounding, who might call themselves ironfounders when they should better call themselves something else; there would be a little error in that way in the minute details, but the ultimate total would be the same as now. Just as if you put in all the details of the coast line into a map. Some of them might be inaccurate; but that would not impair the accuracy of your impression, if you took a general view of the map: you would have the same result, so far as general impressions go, as if you had omitted all details; so in this case, if you took the general result it would be the same as it is now.

1527. The value of the total is left unimpaired, and the additional details give you the means of making a reasonable estimate at all events? – An estimate which in some cases you would know was trustworthy, and in others you would know was untrustworthy.

1528. And you think the judgment to use the figures might be safely left to the person who uses them? – The person who uses them. We want the Government to supply us with straw; we cannot make bricks without it.

1529. (*Chairman.*) Besides improving what I may call the primary returns, you desire to have supplementary information procured by supplementary inquiries? – Yes.

1530. Will you explain to the Committee what you wish to have in that way and how it is to be got? – I am going upon the supposition that the occupation census is taken as part of the general census. Similar results would be got by a different route if the German plan were followed, of taking the occupation census at a different date. I think that one of the most valuable lessons of the American census is the failure of all attempts on the part of the Government to get information with regard to business which is in any way of a private character, and which the business people desire to conceal from their neighbours. General Walker protested against such facts being asked for, but they are still asked for. I think, however, that there is no reason why we should not get trustworthy information with regard to those things which are, firstly, not private, but of common knowledge to persons in the same trade and neighbourhood, and, secondly, capable of being presented in numbers, or at all events in tabular form. I hope that the department will gradually find it possible to get together an immense mass of information, as detailed with reference to the special circumstances of England, as the German census are with regard to the very different circumstances of Germany; but as illustrations of things which I think might very obviously be asked for, I would mention firstly the rateable value of the business.

1531. What do you mean by that? – Of the business premises. Secondly, the number of adult and youthful employés of either sex, and in each grade. It might be a question how much detail should be entered with regard to the grades, but anyhow office work and labour of management should be given separately; thirdly, the number and locality of the branch houses, if any, of that particular business; fourthly, in cases in which the business is partly trading and partly manufacturing, how many employés give their chief time to each side of the work. I think I would now like to pass to the following table:–

Occupation	Position in Occupation	Exclusively or chiefly belonging to the Occupation.				Number of those engaged in the several Occupations either partially or entirely
		Industrial	Domestic Servants.	Dependents not industrial, or only incidentally so	Total.	
1	2	3	4	5	6	7
<i>A. I.</i>						
Heads of business	<i>a</i>	2,296	383	6,255	8,913	4,395
Skilled officials	<i>b</i>	49	6	83	140	50
Independent holders of land, who also work as hired labourers.	<i>a T</i>	866	9	2,377	2,253	875
Families and dependents of <i>a</i>	<i>c 1</i>	1,934	--	97	2,032	2,598
Servants of <i>a</i>	<i>c 2</i>	1,626	--	93	1,720	1,912
Day labourers	<i>c 3</i>	1,373	5	1,402	2,781	1,440
Total	<i>A</i>	8,120	410	10,309	18,840	11,274
<i>B.</i>						
Heads of business	<i>a</i>	1,861	263	4,141	6,266	2,198
Garret masters	<i>a f r</i>	339	2	432	774	371
Skilled officials	<i>b</i>	99	14	158	271	102
Employés	<i>c</i>	4,096	22	4,627	8,745	4,251
Total	<i>B</i>	6,396	302	9,359	16,058	6,924

This is copied not from the American census, but from a German text book of political economy. The English economist is much chagrined when he sees in a German book discussions based on tables which have nothing corresponding to them for his own country. What I now submit to you is part of a table, entered in much more detail, of a large page of a German book, you will see that the last three figures are omitted. The table, when complete, gives a summary of the conditions of German industry, and the first head, is A I., agriculture, breeding, and gardening. I have omitted A II., which includes forestry, hunting and fishing. You will see that *a* means heads of business. There are exclusively or chiefly belonging to the occupation of agriculture, 2,296 heads of business, who employ 383,000 domestic servants, and who have 6,255,000 dependents not industrial, or only accidentally so. There are in all 4,395,000 people who are heads of business of an agricultural kind, including those whose chief occupations are other kinds, carpenters, for instance, but who are agriculturalists in a secondary sense. Next come *b*, the skilled officials. They are, of course, very few in the particular case of agriculture. There are 49,000 of them; they have 6,000 servants, 83,000 dependents, and so on.

1532. (Sir Reginald Welby.) What would that mean, "skilled officials"? – Well, it would mean, foremen, bailiffs, and so on, in agriculture.

1533. (Mr Booth) Deputy masters, in fact? – Yes. Then come *a T*; *a T* is a head only needed for agriculture. It means the number of heads of business who work also as hired labourers, and therefore appear elsewhere over again, as having another occupation.

1534. And, as a matter of fact, do appear again in column seven? – No. I have made a mistake, they do not appear over again there.

1535. (Chairman) What is the distinction between the 866,000 and the 4,395,000? – I have mislead you by what I said. Those latter are heads of business. For instance, a carpenter who had a small farm would be entered under 7, but not under head *a T*. Under head *c* are the different employés; in the cases of many industries in the volume that I am specially acquainted with, *c1*, *c2*, *c3*, are not specified, but with regard to agriculture they are. *c 1* are for families and dependents of *a*; *c 2* are the servants of *a*; *c 3* are the day labourers employed by *a*. Coming down to head B, that is, industry, that would include on Mr Booth's schedule all from section 3 down to section 31. The are divided *a* heads of business, and so on. I need not read the rest of the details, *a f r*, garret-masters. Garret-masters is my own word. The full title is heads of business who do not work at their own risk. It would be a great gain to us if we head a similar heading in England.

1536. What do you mean by that; illustrate it? – Well, they are the kind of employers whose work has been investigated by the Committee of Sweating, *i.e.*, people who take out contracts from firms who undertake the chief responsibility and risks of the trade; people who take contracts to make so many shirts or so many pieces of furniture; or, again, the people who worked on the plan which was nearly universal in the woollen industry in the first 25 years after water-power was first used. The undertakers of the woollen industry were capitalists, who sent round generally the material, and gave out orders as to what was to be done with it, and when the work was done they sent round again to collect the stuffs. They paid the small masters for their work, and themselves undertook the whole risks of the business, and that is, I believe, extensively done in Germany; all those small masters and sub-contractors would come under that head, *a f r*. Next come *b*, the skilled officials; *c*, the employés. I should, perhaps, have said that if we had this information with regard to garret-masters, we should know better to what extent what is commonly, but inaccurately, called sweating existed in the country. I would now pass, please, to the other table.

1537. (Sir Reginald Welby.) Before you pass; dealing with the German statistics, are those returns which contain the minute information upon which these tables are based supposed to be accurate – are statisticians satisfied with them? – I have not heard any general complaint. I have no doubt myself they are much more accurate than the English, because the enumerators are, I understand, trained to their work.

1538. The enumerators are really trained men? – I do not know in detail, but I have understood that.

1539. (Chairman.) You put in these papers as illustrating what you want to secure? As illustrating what is being done elsewhere, I will now put in these two tables: –

States	A. Agriculture, Forestry, Breeding, Hunting and Fishing	Sub-divisions of			B. Industry (manufacture), including Mining and Building.	Sub-dn. Mining, Quarrying	C. Trade and Transport	Sub-divisions of C.				D. Hired Labour, including domestic service*.	E. Official and Professional. †	F. Without occupation. ‡	Total.
		Agriculture and Breeding	Forestry and Hunting	Fishing				Trade and Insurance.	Land Transport.	Water Transport.	Vendors of Spirituous Drinks.				
Per-centage of occupied population (Erwerbstatigen) engaged in each division or sub-division.															
Germany	46,7	46,1	0,59	0,13	36,8	2,50	8,9	4,84	2,00	0,48	1,39	2,3	5,8		100
Austria	59,8	-	9,8	0,04	22,2	1,14	4,2	3,10	0,97	0,15	-	9,7	4,1		100
Hungary	57,2	-	-	-	12,1	0,39	2,8	3,45	-	-	-	14,1	3,8		100
Italy	52,6	62,0	0,26	0,32	22,8	0,11	6,0	4,13	1,24	0,63	0,68	4,3	4,3		100
Switzerland	45,9	45,4	0,38	0,08	41,9	0,09	7,6	8,34	1,64	0,13	1,73	1,4	3,2		100
France	46,3	44,9	1,45	-	31,9	3,33	13,7	10,06	1,56	0,64	3,18	-	8,1		100
England and Wales	14,0	13,6	0,03	0,31	54,5	4,63	17,2	-	3,27	1,92	1,92	8,1	6,2		100
Scotland	18,8	16,4	0,22	2,21	54,8	4,83	15,8	10,28	3,13	1,58	0,84	6,2	4,4		100
Scotland	48,8	48,3	0,01	0,53	23,0	0,10	8,2	5,61	1,10	0,85	0,61	14,6	5,4		100
Ireland	47,3	47,0	0,06	0,25	24,4	1,44	12,4	7,11	3,11	0,66	1,56	11,5	4,4		100
United States															
Per-centage of the whole population engaged, or dependent on those engaged, in each division or sub-division.															
Germany	42,5	41,6	0,68	0,17	35,5	2,98	10,0	5,12	2,71	0,52	1,67	2,1	4,9	5,0	100
Austria	55,1	-	55,0	0,05	22,8	1,43	5,6	3,94	1,42	0,20	-	8,4	4,1	4,0	100
Switzerland	42,5	41,9	0,46	0,09	36,8	0,09	8,8	4,52	2,02	0,16	2,07	1,1	3,8	7,0	100
France	48,3	47,4	1,39	-	24,9	3,02	12,4	7,16	1,47	0,67	3,11	-	5,7	8,2	100
Denmark	45,2	-	-	-	22,9	0,03	9,6	5,00	0,44	2,94	1,25	9,2	6,7	6,4	100
Norway	55,2	-	50,0	5,22	17,0	-	12,2	4,77	0,86	5,66	0,92	4,4	4,4	6,8	100
Sweden	54,8	-	54,2	0,61	10,4	1,54	3,4	1,42	0,58	1,17	0,19	7,5	6,1	17,8	100

* Hired labour of varying and indeterminate character.

† *i.e.*, in the service of the central or the local governments, the Church, &c., and the "so-called" free occupations.

‡ Persons without occupation, dependents, &c., and the inhabitants of institutions with their servants and dependents.

Note. – In the United Kingdom dealers are not generally distinguished from makers, and when not distinguished are reckoned as makers."

These two tables show the general distribution of industries in different countries. Looking along the top you see A: Agriculture, forestry, breeding, hunting, and fishing, with certain sub-divisions; next, B: Industry, manufacture, Including mining and building; C: Trade and Transport; D: Hired labour, including domestic service; E: Official and professional; F: Without occupation. In the German census all these facts are given, of course, in actual numbers, as well as in per-centages, but I thought it would be more interesting to reproduce the per-centages. As to the first of these two tables, I wish to point out a remark that the compilers of the German census have found it necessary

to insert – a remark which, as an Englishman, I feel most disgraceful to us – that in the United Kingdom dealers are not generally distinguished from makers, and where not distinguished are reckoned by the Germans, when compiling their figures relating to England, as makers. England is almost the only country that claims to be highly civilized that does not make that distinction. In the second of these two tables we have the per-centage of the whole population engaged, or dependent on those engaged, in each division or sub-division. The facts are known for Germany, Austria, Switzerland, France, Denmark, Norway, Sweden. But there is no means of forming a good guess as to what those statistics ought to be for the United Kingdom.

1540. You have got England and Wales filled up with figures? – Not in the lower table. Of course, statistics are of no great use to anybody who cannot read between the lines I cannot read between the lines of German statistics, and therefore I do not study them in detail. I have very little direct knowledge of the volumes of the census. I am continually meeting with German statistics in German books, and there is a very convenient compendium, in many ways, I may venture to say, more instructive than the English Statistical Abstract, which I refer to continually. The general introduction to the German census of occupations contains a great number of detailed tables in which work is done, which, if wanted in England, has to be done by private persons. I do not trouble you with a minute account of many of them; I will give you one as an instance. The towns of the German Empire being grouped in classes according to their size, the per-centage of people in any class of towns who are employed in any one of the 150 secondary divisions are entered separately: so that you can tell, for instance, what per-centage of the largest towns, those of a population of more than 100,000, are coachmakers, or, again, are hat manufacturers; what per-centage of those between 20,000 and 100,000; what between 2,000 and 5,000; what between 1,000 and 2,000. You can see at once what industries are localized in big towns, and, what are not; but the English census does not enable you to do that for England. Again, it is obvious that that most fascinating inquiry to the economist, what tendency is there to the increase in the size of individual business, can be answered at once from the first of the two tables that I have just given: *a* gives you the number of heads of business; *b* plus *c* gives you the employés; divide the ones by the other and you have the per-centage; but the Germans are not contented with that. They think it important to classify businesses into large and small, according to the number of persons employed in them. Their circumstances being different from ours they take the number five – we, of course, should not – as the dividing point between small and large; and they give here in this abstract or compendium, which is in everybody's hands, for each particular branch of industry, what per-centage of the whole business are large businesses, and what is the average number of employés in each large business. That is one of the many facts that I think we should have in our census. In Germany the specialisation of industry has, of course, been carried much less far than in England, and the question what are the subordinate or secondary occupations of any worker is of much greater importance than here. A great deal more than the whole of the space given in our census of occupations is devoted to that one question in the German census. I do not think it would be at all reasonable to go fully into that particular matter in regard to England; but we have our own questions of special interest to us which ought to be gone into, in my opinion, in similar detail. The figures in column F in the second of these two tables bear upon a question that was raised in the Memorandum with regard to that part, more than a half of the total English population, which was returned as unoccupied. In other countries you see the dependents upon anybody who is occupied are entered as dependent, and therefore the figures in this column are very small. In the German census the class is sub-divided into several heads; those persons who live on their own properties from rents, dividends, &c. The second is a very interesting head, those supported by others; for instance, a man who is allowed 500l. a year by his father, and is doing nothing, would find a pigeon-hole there. The third head contains those occupied in getting an education, half being thought, and half earning their living, apprentices, and so on; they would not well go in anywhere else; fourth, those living in poor-houses, mad-houses, and prisons, and some other minor heads. That is all that I have to say on that subject. The only things that I have to say further, are some suggestions as to the course that I have conceived might be adopted in order to arrive at a solution of the broad question what should be the work of an industrial department.

1541. Yes, but having now explained to us what you would like to secure, is to be obtained by some subsidiary process to the main census? – Either as part of the occupation census, if the occupation census is not collected at the same time as the general census, but is taken gradually so that there would be time to go into these details. But if it is taken as part of the general census, then the details should be got by a special set of inquiries issued to all those who have filled themselves up as employers in the householder's schedule. It has been said that everybody has a tendency to exaggerate his own importance, and that many people will put themselves as employers, because occasionally they have got a man to help them in a job. No doubt that is so: but whenever such a man has this employer's schedule put before him, he will find that he cannot fill it up. There will have been no harm done, a schedule will have been wasted, that is all.

1542. Yes, but the committee would be interested to know by what machinery you propose to get this information. You do not rely on the ordinary householder's schedule? – No, in no case. I rely on the occupation schedule, in case there is an occupation census separate, but on the supposition that the occupation census is taken at the same time as the general census. I then propose, or we propose, that a special letter should be sent to all employers, giving them a good deal of special instruction as to the way in which they are to fill up the schedule with regard to their special trades. By that time we should have known what trade a person belonged to, and it would be a waste of time to give to a farmer detailed instructions how he should fill up the details of a cotton mill; but I should send to each particular class of employers special detailed instructions as to the class of trades to which he belonged, and I think then, that provided you asked for nothing that it was for the interest of the person to conceal, you might get almost anything you wanted; of course you would ask for it compulsorily. If you asked compulsorily for things that he had no object in wishing to conceal, I think you would get them.

1543. Yes, but you contemplate two processes? – Yes.

1544. Secondly, this inquiries of employers; firstly, an occupation census. Is that occupation census to be taken at the same time as the ordinary enumeration; is it to be simply secured by giving the householder a separate paper to be filled up? – I am contemplating two alternative plans. On the one plan there would be no general occupation census, but the main census would retain very much of its present form, but with the improvement suggested by Mr. Booth with regard to the statement as to whether a man was an employer or not. Those returns having been filled in, there would be in the course of time, perhaps three months later, a set of papers issued to all those who had returned themselves as employers, those papers being perhaps divided, *a*, *b*, *c*, *d*, *e*, to represent the general broad classes of industry, and being adapted to the conditions of those particular classes of industry. I think it would be advisable that the present agricultural census should be incorporated with that to a great extent. Of course it is known that a part of the agricultural returns are not taken every year, namely, the part corresponding to the size of the business, in the more general inquiry of which I have been speaking. The acreage in each particular holding is not returned every year; I think once in five years.

1545. Then, at the ordinary census, you would make no addition whatever to the present machinery? – No.

1546. Except what Mr. Booth suggests in the way of extra columns? – Yes.

1547. You make no addition? – No beyond that.

1548. But some months later you issue to those who return themselves as employers a supplementary communication which you rely on them to fill up, they being under compulsion, and the inquiries not being directed to anything that they would have an interest in concealing? – Yes.

1549. You do not think the interval of a few months would make any great difficulty in collecting that subsequent

information? – I do not see why it should. It would be just as valuable, although at a few months later, as at the time.

1550. But the change of persons would not be material in the interval? – I do not think it would do much harm if there were. I do not think it would be material, but I think this employers' census would be practically self-contained.

1551. Some of the employers might drop out and others might come in; there might be a few changes? – A few people might be employers that were not employers before, and they might not get a schedule; and in those few cases harm might be done and the returns rendered very slightly inaccurate. On the other hand if a schedule were sent to a man who had died or left his business, the schedule would be wasted; that is all.

1552. You think answers might be got to all the questions you propose should be asked them? – I think so.

1553. The question, for instance, of rateable value of the premises, do you think that is a thing as to which there would be no objection to make a return? – I do not think that those facts are, as a matter of fact, a secret. Everybody knows pretty well what everybody else is rated at.

1554. In connexion with the number of persons working? – That would be known by people in the trade. The only people from whom he would have any object in concealing it, would know it already.

1555. (*Mr. Booth.*) That is to say, the things you would ask, so as to use it for general purposes, would be no more than is already known locally of that particular business? – Yes; known by people in the same trade and place.

1556. Then you would use the census enumeration as a basis simply to build this after-structure upon? – Yes.

1557. And it would not necessarily be exhaustive; you would not necessarily deal with every occupation or industry, but could, if necessary and desirable, take out those which most needed investigation? – Yes; I should not think myself it would be advisable to leave out any, but it might be done.

1558. (*Sir Brydges Henniker.*) The second inquiry is, I presume, to come from the head office, you mean, because it is rather important. I understood you to say, that after the first enumeration every man who was to be found throughout England and Wales, returning himself as an employer, is to have to him addressed a letter which gives him various answers to fill up, and various instructions as to the information required. Is that letter to be sent out from the head office? I should myself very much prefer its being taken round by a skilled enumerator. I would be glad to have it done, even if it had to be done through the post; but I should prefer its being done by skilled enumerators, who need not, I think, be very numerous.

1559. I had better, perhaps, explain to you the gist of my question. You talk about another inquiry coming out in two or three months, but has it not occurred to you that it would be so far from two or three months, if the enumeration of the first census is to be sent up to the head office and examined, that so far from two or three months, we could not get them out in six months, and, therefore, *a fortiori* it would be much more likely that the changes suggested by the chairman would have occurred? – I should not care very much even if it was made three years later, it would not make a very great difference. It would still be a matter of most valuable information, but if there were any difficulty in sending out the envelopes from the head office, they could be sent out by post or through enumerators equally well by the superintendent registrars.

1560. The superintendent registrars cannot keep the books long enough, under the present conditions. You see you are laying very great stress upon an industrial census which we have not hitherto had, but a great number of the public lay, if possible, more stress upon vital statistics, and to bring on this vital statistics in anything like time there must be no time lost between the taking of the books of the census, and the receiving of those books and putting them in hand in the head office. That was my point, and to send out a second inquiry of this kind, where you have got the books of the head office, would very seriously delay the bringing out of the vital statistics, to which considerable importance is attached by the public? – I should like to say that I do not at all deny the very great importance of vital statistics. I have never heard anybody speak disparagingly of them. But at the same time I do not believe that the majority of the population cares so much for vital statistics as for industrial statistics; for all classes of workmen are constantly complaining that they can get no information with regard to the conditions of their trade. It does not seem to me as if the sending out of these further letters need necessarily delay the superintendent registrars much. If it did, I think the evil would be small, and if after all it were objected that the work could not conveniently be done in the same way, I would then be very glad to have it done in another way. The only result would be that a few, a very very few, employers would miss being noticed altogether. Only a few would be missed out, because an employer is a person who can generally be detected by the naked eye without any elaborate machinery, and we should still have information which would be, in my belief, three times as accurate, as well as very much fuller than we now have.

1561. (*Sir Reginald Welby.*) You do not anticipate reluctance on the part of the employers to give the more minute information to which you attach value? – I do not think there is any reason for believing that they would. I cannot gather that there has been any experience tending in this direction.

1562. I should like to give you a fact which occurs to my mind, only I would not ask you to suppose that I am attempting to generalise too much for one single instant. A friend of mine, who is an inspector of factories in a large town, told me, at a time when the Government was asking for certain information from the Government offices on the subject of industry, and very much of this kind of information, he had occasion to go round and get some of this information. This happened three or four years ago, and according to my recollection, what he told me was that in several cases he heard from the heads of factories: "We know you; we will give you the information. We have not been answering this question that come from the Government offices, because we do not know what use is going to be made of the answers." That is only a single fact, and I do not want to generalise too much, but I want to bring it before you as the instance which puts the question into my mind. – I perhaps should have said before that I think it is very important that there should be a clearly drawn line between compulsory statistics and those that are not compulsory. I think that whatever department calls for compulsory returns, should, if possible, not call for voluntary returns. Those voluntary returns, for instance, which have been asked for by the Board of Trade are, I think, most valuable; but I think that at present you could not compel people to answer the questions asked by the Board of Trade without provoking very strong resistance. Their schedules ask for a great number of details. I have not the schedules before my mind's eye now, but I have studied them carefully at other times, and I felt that there were many things in them which many people would wish to refuse to answer, and if you put into a list of questions one or two that people do not like to answer, they will not like to say that they do not like to answer, and so they will often not answer at all. General Walker has published a statement that in consequence of the Government insisting upon asking for the capital employed in different manufactures, all the returns in which that element has been asked for have been badly filled up. People refuse to tell the truth about that, and so they do not tell the truth about other things. The kind of information that I am suggesting so far, is in no way more inquisitorial, than that which the department already collects. It is of the same class, as far as I can make out.

1563. (*Chairman.*) You have laid great stress and expressed much admiration of the results of the German census; do you know how these results were obtained? – I do not know in detail. If it had been possible for you to put off evidence till June I would have gone into this matter thoroughly, but I have been so very busy that I have not been able to read an extremely voluminous introduction to the German census.

1564. You heard the evidence of Mr. Booth to-day I think? – Yes.

1565. Have you anything to add to what he has said? – No, beyond this, that I consider every change he makes would tend to great improvement. Continuity of statistics is, however, so very important that, although I think there

is no doubt we shall have ultimately to adopt practically as our order one similar to that he proposes, and which is nearly universal elsewhere, that is agriculture first, manufacture next, trading and transport next, yet, considering that there will be not time between now and 1891 to get the census into a condition in which we should wish it to remain for long, I think myself I am not prepared to advocate *boulversement* of the order during this census. I think that a thorough change must come eventually, but I think it should come as the product of many years' work of a strong department.

1566. On the question of the institution of a permanent census department, have you any observations to make on the relation which might subsist between that and other departments of the Government? – None, except that I think that it is very important that some central authority other than either the Home Office or the Local Government Board, or the Board of Trade, some authority which could take a view independent of all personal or departmental considerations should go into the matter very seriously; and consider the relations in which these departments, together with that of the Registrar-General, stand to industrial statistics. I think it is a serious matter, because the progress of England depends upon her being able to know what she is doing, in what respects she is going forwards, and in what respects she is going backwards. I should like to add that in particular the central office should make great use of the work of the factory inspectors. Our factory inspection is ahead a long way of that of all the rest of the world; in fact, there is scarcely any side of Government work with regard to economics in which we may not compare favourably with other countries; our industrial census alone excepted. I believe that the factory inspectors would be able to give very valuable information upon many of the leading questions that would have to be raised in re-organising the census. For instance, taking the fact that there are 200,000 people engaged in the iron industries, those factory inspectors who had chiefly to do with the black country, would be able to give, I think, very useful suggestions as to this question: what groups of workmen are there which are homogeneous and which are important, what lines can you draw which will be of real interest, and of real service to you as factory inspectors (because that is in itself a very important consideration), of service to you as factory inspectors and of interest to workmen of different classes, and will enable us to know what are the changes in the relative numbers of the various groups of labour. I wish again to insist that at present the census affords no help whatever, absolutely none, towards finding out whether there is an increase in skilled labour, relatively to unskilled. Everybody is writing about it, everybody is guessing, nobody knows, because the only people who could find out refuse to do so.

The witness withdrew.