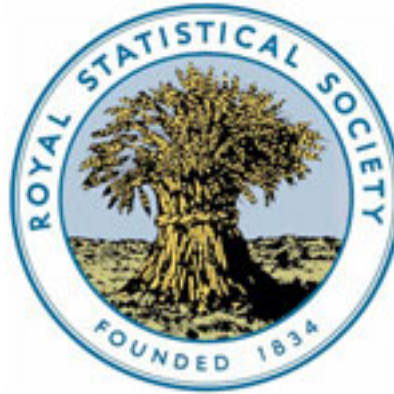


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**JOURNAL**  
**OF THE ROYAL STATISTICAL SOCIETY.**

JANUARY, 1917.

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**THE ORGANISATION OF REGISTRATION IN ITS BEARING ON VITAL  
STATISTICS.**

THE PRESIDENTIAL ADDRESS OF SIR BERNARD MALLET, K.C.B., FOR  
THE SESSION 1916-17. DELIVERED TO THE ROYAL STATISTICAL  
SOCIETY, NOVEMBER 21, 1916.

I AM glad to take this opportunity, the first which has presented itself since last summer, of expressing my sense of the distinguished honour done to me, and, what is more important, to my Department, by my election to the office of President of the Royal Statistical Society; and my anxiety to justify the choice of the Society by working for its interests to the best of my ability. It will be difficult, indeed, in this respect not to fall below the standard set by the two Presidents under whom I have been privileged to serve as a Vice-President—the late Sir Charles Dilke and Lord George Hamilton, who has just relinquished the Chair after a supplementary term of office consequent upon the lamented death of Lord Welby. As regards Sir Charles Dilke, the Society has placed upon record its recognition of the high ability and energy with which he devoted himself to its service; and as regards Lord George Hamilton, I shall only express the unanimous feeling of his colleagues on the Council when I lay stress on the good fortune which enabled the Society to secure, for so unusually long a period, the services of this distinguished statesman. No one within the memory of those who hear me has filled the post of President with greater success. His devotion to the interests of the Society, his attention to its business and the work of the Council and the Committees, his charm and geniality of manner, and the ready and effective inter-

vention in our discussions of so accomplished and graceful a speaker, will long remain in our memories, and will make the task of a successor so ill-equipped as myself, especially in the last-mentioned particular, one which will eminently call for all the indulgence of his colleagues. I confess that when the unexpected suggestion was made to me that I should succeed him I felt some hesitation about my answer. There was a difficulty, as it seemed to me, in the fact of my being an official still in active Government service. There must always be some risk of a civil servant finding himself in a false position in a semi-public post of this kind, even if it is quite unconnected with politics. As, however, my Parliamentary Chief was good enough to raise no objection either to my acceptance or to the subject which I proposed for a presidential address—that of the General Register Office statistics—and as I was aware that, owing to the war, the area of choice for a President was more limited than usual, I did not feel justified in standing aside, if it was thought that my services might be of use to the Society. It might be argued, indeed, that the occupancy of an official post, instead of being a disability, was a reason for the acceptance of this particular position. Although no previous Registrar-General has held it, no less than four Presidents have been drawn from the ranks of the active civil service, namely, Dr. Farr, Sir Robert Giffen, Sir Alfred Bateman and Major Craigie, and the connection between the Society and the public service has always been close. I need only refer to names like those of Sir Athelstane Baines (a past President), Sir Edward Brabrook, Sir Henry Rew, Sir William Clark, and Mr. Flux in our day. In my own case, at all events, the fact that I happen to be the representative of a department concerned with statistics which, from the subject matter dealt with, has always been more intimately associated with the Royal Statistical Society than others, constitutes my one valid qualification for the Presidency of your Society. This association has seldom been closer than during the last few years; my predecessor, Sir William Dunbar, was a member of your Council, and Mr. Noel Humphreys, late Chief Clerk in the Registrar-General's department, was for many years a much valued Honorary Secretary of the Society; and the present Superintendent of Statistics, Dr. Stevenson, and myself have almost continually served on the Council since we became connected with our present office.

Whether the Royal Statistical Society feels the same satisfaction in the results of its connection with officialdom is another question. I remember my friend, Sir Timothy Coghlan, some years ago expressing his disappointment that a "Society like ours, numbering among its

“members so many persons of eminence in the statistical world, “should have so little influence in the official statistics of the “country.” He was speaking, of course, of the evils to which the then President, Sir Charles Dilke, had drawn such forcible attention in his Presidential address of 1907, and which Mr. Bowley summarised in a subsequent paper as the “want of system in National “Statistics, the waste of energy in their collection and publication, “the want of correlation and the difficulties in the way of making “use of them.” It would be futile in me to suggest that any remedy has been found, if indeed it has been sought, for the imperfections stigmatised in these addresses since their delivery. The publication of a good deal of official statistical matter has, I understand, been suspended during the war. If the critics to whom I have just referred are justified in their indictment—a question on which it would be unbecoming on me to pronounce—this is, perhaps, not wholly a matter for regret. At all events, the field will be clearer for future reform; it will no doubt be found that subjects which were formerly proper for statistical treatment have lost their importance, and that others have taken their place; and it is possible to hope that, when the period of reconstruction arrives, means may be found of establishing some form of central control and supervision without which no real improvement in these respects can be looked for. If this should come about, the Royal Statistical Society might well play its part, perhaps by appointing a Committee to go into the subject as was suggested by Mr. Bowley.

But I do not propose to enlarge on this interesting topic, which I hope will be handled by one of our Vice-Presidents, Mr. Drage, at our next meeting, and which ought to lead to a useful discussion. I think I shall better employ the time at my disposal to-day in drawing attention to the imperfections of the statistics for which my own department is responsible, and to certain changes and reforms which our experience has shown to be desirable. Although there is nothing very new in the suggestions I shall have to put before you—which have indeed long been in our minds—they are, I think, of sufficient importance to have claimed attention even in ordinary times. But these times are not ordinary; and it is inevitable that the circumstances with which we have to deal to-day should bring questions of vital statistics into a prominence which they have never before assumed. The appalling drain upon the manhood of the nation in all sorts of ways, direct and indirect, which the present war is going to cause before its close must have many consequences; and one of them will be to draw greatly increased attention to the importance of all measures tending to

obviate preventable causes of death at all ages, and especially in infancy. It is unnecessary to point out that the usefulness of any such measures will be largely dependent on the fullness and accuracy of the statistical information upon which action must be based. I need probably say no more in justification of my choice of a subject for this address, but I should like to add that in what I have to say I speak only for myself, and not for any of the Government authorities by whom these questions, if they were officially raised, would have to be decided. The fact, however, that matters are only at this stage of what I may call "pious aspiration" on my part will give all the more practical value to any criticisms or suggestions which Fellows of this Society may on some subsequent occasion be disposed to contribute as a result of the present ventilation of the subject.

I do not propose to touch on the work of the Census except cursorily as a problem of reorganisation, but I desire to confine my observations mainly to the ordinary statistical work of the department, to trace its history very briefly, to review the defects in the venerable machinery of the Registration Acts, with special regard to the limitations which those defects impose upon our statistical work, and to suggest certain reforms which, if they could be adopted, would, in my opinion, materially enhance the usefulness of our work. I am not sorry to have this opportunity of emphasising the routine side of the work of my department which is dwarfed in the public eye by the publicity attaching to the work of the decennial Census.

Civil registration and the office of the Registrar-General of England and Wales were established by the Marriage and Registration Acts of 1836–37. These Acts resulted from an important and enlightened Report of a Select Committee in 1833 on the Parochial Registers and a General Registration of Births, Baptisms, Marriages, Deaths and Burials, and the Bills as originally introduced were considerably more effective than after they had run the gauntlet of Parliamentary criticism. The House of Lords amendments, for instance, among other things, removed the penal clause which would have made notification of births and deaths compulsory; permitted burial without a certificate from the Registrar or an order from the Coroner; and instituted the present unsatisfactory dual system of legal preliminaries to marriage by their refusal to agree to the provision in the Bill for the solemnisation of *all* marriages after civil preliminaries. Registration did not become compulsory until the passing of the Act of 1874.

The Registration Acts were primarily concerned with the record, the statistical side being all but ignored. Indeed, up to the present

moment the only statutory provision for vital statistics is Section VI of the Act 6 and 7 William IV, cap. 86, which enacts that the Registrar-General shall send once in every year a General Abstract of the Numbers of Births, Deaths and Marriages registered in the foregoing year to be laid before Parliament. Oddly enough this particular return was selected a few months ago as the one which had become redundant and could be dropped. The development, therefore, of the statistical work of the office has been due to administrative and not to legislative action.

Modest as was the reference to statistics in the Act, it did not escape the lynx eye of Lord Ellenborough, who detected the trail of the statistical serpent, and pointed out that to the poor man it was of no benefit to have a birth registered. "It was required "to be done just to gratify the statistical fancies of some few "philosophers, in order that they might know how many persons "died and how many were born in a year!"

This accidental and subsidiary character of the statistical branch of the department has, however, turned out to be an advantage rather than the reverse. Centralisation in an office of the processes of tabulation from the materials furnished in the course of administration is a source of strength, and ensures a uniformity of treatment not attainable by the system which prevails in most other countries. The drawbacks to which I shall come presently arise mainly from the rigidity of the legislation prescribing and restricting the form of the records which supply the material for statistics.

It was a piece of singular good fortune that the preparation of the tables should, from the first, have fallen into the hands of one whose genius and enthusiasm enabled him to grasp the full possibilities of this hitherto untrodden field of research. I need not say that I allude to Dr. William Farr, who was to attain a European reputation in vital statistics, and to whom it was due that the statistics of mortality for England and Wales came to take such high rank. Even then, however, he was hampered by the limitations imposed by the nature of the materials available. The Act, for instance, provided for registration of the cause of death, but made no provision for certification of cause. The cause had therefore to be ascertained from the informant of the death, and it was not till the passing of the amending Act of 1874 that the medical certificate of cause of death came into existence as part of the legal record. To remedy as far as possible this glaring defect, the President of the Royal College of Physicians, the President of the Royal College of Surgeons and the Master of the Society of Apothecaries, addressed a circular letter to medical practitioners on May 1

1837, entreating them to hand to the informants written statements of the cause of death which could be shown to the Registrar and given as their information on this point. In view of subsequent developments it is interesting to note that these eminent medical men recommended that only the name of the disease considered to be the cause of death should be given, and not the antecedent symptoms, while the popular or common name was to be used in preference to such as is known only to medical men. In the first set of examples, issued in August, 1838, showing how deaths should be registered, the causes of death appear as "debility," "dysentery," "paralysis," "consumption," "apoplexy" and "drowning." It was hoped, at the time that the original Registration Acts were passed that a large number of medical men would become Registrars of Births and Deaths, and that by this means greater accuracy in recording causes of death would be secured. As a matter of fact, out of the 2,193 registrars appointed up to September 30, 1838, no fewer than 527, or nearly one-fourth, were members of the medical profession. From that time, however, the number of registrar-doctors has steadily diminished, until it has come within hail of vanishing point.

In the first annual report issued, one page of tables is devoted to marriages and births and about sixty to deaths, and the relative importance assigned to these three sections of vital statistics at the outset has been more or less maintained down to the present time, for in the last annual report issued (for 1914), in over 500 pages of tables, less than 50 are devoted to marriages and births. This disproportion is, of course, to some extent in the nature of things, for causes of death must necessarily be more prolific of tabular statements than statistics of birth or marriage. It was natural also that the gaze of Dr. Farr and of the medical gentlemen who succeeded him in the office of Superintendent of Statistics should have been focussed somewhat exclusively on the facts relating to disease and death; and it must be remembered that it is only in our own day that the vagaries of the birth rate have begun to attract the anxious attention of students and of the public. In the hands, however, of their distinguished successor, Dr. Stevenson, the annual reports are gradually widening in range; and the question at the last Census, which was designed to produce statistics relating to the fertility of marriage, was wholly due to his initiative. In this connection it may be of interest to refer to Dr. Farr's enumeration (in his first report) of the benefits which might be expected to flow from the practice of registration. He was evidently thinking mainly of the registration of deaths. These were—(1) The promotion of



practical medicine through the study of the registered diseases by the experienced practitioner ; (2) the designation of localities where disease is most rife and where there is least tendency to particular classes of sickness and infirmity ; (3) the greater precision which would be given to the principles of physic by the substitution of numerical expressions for uncertain assertions, and by the presentation of an unbroken series of observations on a large scale in lieu of the limited number of facts which fall under the notice of the single observer. Finally, there would be an improvement in treatment of disease, and especially in preventive medicine, by the discovery of the existing cause, of which the register would show the agency by numerical facts and measure the intensity of their influence.

How far these anticipations have been realised it would be impossible to measure statistically ; but there is one remaining prognostication which, being expressed in figures, admits of some approach to a statistical test. "It may be affirmed," says Dr. Farr, "that it is possible to reduce the annual deaths in England and Wales by 30,000." Seventy-five years later the annual deaths in England and Wales on a similar population had been reduced by over 120,000 ! It would not be rash to attribute some part of this improvement to the presentation and study of the statistics of mortality.

In the presentation of vital statistics no radical change was effected until 1911, the process being rather one of development of the tables on the lines laid down in the earlier reports, including, however, considerable alterations in the classification of diseases.

The annual report of 1911 marks so considerable an epoch in the presentation of our English vital statistics that I may perhaps be excused for drawing rather special attention to it, especially as the reforms instituted in that year, the beginning of a new decennial period, may be looked upon as a response, in one public department at all events, to the criticisms made by the eminent statistical authorities above referred to.

When Dr. Stevenson and I turned our attention to our official reports, very soon after our respective appointments to our present posts in the latter half of the year 1909, they impressed us as being defective in certain respects. Some want of co-ordination, some duplication, and the publication of a mass of figures which, except for purposes of comparability with former years, were largely devoid of practical utility, were faults which obviously called for remedy. The chief difficulty in the way of reform—a difficulty which had prevented our predecessors from dealing with this matter—arose from the fact that the areas in which



our data are collected and for which they were then presented in our tables, the old Poor Law or registration areas, differed seriously from the urban and rural administrative divisions of the country brought into existence by the Public Health Act of 1875, for which vital statistics were urgently required. This requirement had been met by separate statistics furnished by the local areas to the Local Government Board (differently classified indeed as regarded causes of death), and also at my own office by the publication of an annual summary which gave partially corrected figures for the more important administrative areas in the country. Although it did not necessarily follow that the area of collection must govern the area of presentation, the cost and labour of transposing the figures had been considered prohibitive, and it had been decided to wait for the expected reform of the poor law which would, it was hoped, bring in its train a drastic reform of the registration system. It happened fortunately that the use of a system of cards mechanically sorted and counted, which we introduced for the first time at the Census of 1911, enabled us to overcome this mechanical difficulty; and owing to the cordial co-operation of the able medical officer of the Local Government Board, Dr. Newsholme, with Dr. Stevenson, two other changes of the first importance were made—the allocation of all deaths, as far as possible, to the area of residence, and the adoption of the international list of the causes of death in a form designed to preserve continuity—which brought the publications of the General Register Office (and of those for Scotland and Ireland, which adopted this change at the same time), of the Local Government Board and of the local sanitary authorities into line not only with each other, but also with those of the principal Colonies and of most foreign countries. I may add that the introduction of the card system has made it possible to increase the information afforded in the tables in a variety of ways. Once the labour of preparing the cards required for the routine tabulation as previously carried out has been accomplished, it becomes a very simple matter to obtain records of additional combinations of the facts recorded, whereas under the system previously employed each additional tabulation had to be undertaken independently, the record of one combination of facts not contributing in any way to the preparation of that of another. But as the whole question is fully dealt with in the annual report for the year 1911, I need not dwell further on this subject. I hope, indeed, that I have not wearied my hearers by what I have said, and that I do not overrate the usefulness and importance of the improvement in the presentation of our vital statistics to which I have drawn attention.

There are still some weak points, notably the difficulty in bringing our reports as closely up to date as we should like—a very important matter as regards the practical usefulness of statistics. The present war, with its military calls upon our younger men and emergency work such as that of Belgian and National Registration which have affected all branches of the department, is the main cause of the failure of our hopes in this respect. It is responsible also for the delay in the publication of our General Report on the Census in 1911, now at last on the eve of issue, which I trust will be found to bring together all the statistical facts as regards England, the United Kingdom and the British Empire, resulting from the enumerations of that year (except only the new fertility statistics, still unfortunately delayed for the reasons just referred to), in a form superior in some respects, and especially in its use of diagrams, to that of any previous general report. A more serious, because recurrent, difficulty arises from the manner in which members of the small trained statistical staff of my office is drawn upon at each decennium, for years at a time, for the work of the Census. Still on the whole I think I am justified in saying that the limits of departmental action in the way of improvement have pretty well been reached, and that greater progress is barred mainly by the obsolete legislation under which we have to act.

It is certainly the case that we are nearly at the end of what purely administrative action can do in the way of obtaining further information on which statistical research may be based. In some directions, no doubt, greater elaboration of the work on existing materials would be possible whenever staff exigencies allow; but the truth is that much of our recording machinery is out of date. In view of the increasing importance now attaching to the collection and systematic presentation of the facts of vitality and mortality, and of the demands which questions of public health and social organisation make upon the department charged with this work, it is essential, if these demands are to be adequately met and new work of any importance is to be undertaken, that the whole position should be surveyed and very considerable changes made, not only in the material to be collected in the course of the processes of registration, but in the organisation of the registration service. The two things are largely interdependent, but in what I have to say I shall, of course, confine myself as far as possible to the statistical bearings of the question.

What, then, are the main points in which, from a statistical point of view, our present registration system is defective owing to the fact that it does not allow of our obtaining the necessary information?

(1) As a record, the present entry is defective, in that it either fails to identify completely the person to whom it relates or fails to point directly to the next step in tracing the family history. Thus, in the death entry of one of the hundreds of John Smiths, there may be no clue to the marital condition or to any family relationship of the deceased man, and all we can learn from the record is that a certain John Smith, aged 54, a carpenter, died at such a place on such a day of such a disease. If, however, the entry contained statements as to the date and place of his birth, and that he was the husband of Mary Smith, formerly Jones, to whom he was married on such a date, there would be something resembling a complete identification of the dead man and indications from which the family history could be traced by any interested person. In the same way, the birth entry of John, the son of John Smith, tells us only that he was born at such a place on such a date, and that he is the son of John Smith and Mary Smith, formerly Jones, but it gives no clue to the next step backward in the family history. If, however, the entry contained the date and place of the marriage of his parents, it would direct us at once to the documentary record of that event.

(2) As regards the statistical data available, we are confined practically to the meagre details given in the record. But although, in view of the modern development of interest in public health and social and economic questions, we want, as I shall show, a good deal more in the way of information than we are now authorised to obtain by inquiries from the public, it is, of course, by no means the case that all of this is of a nature which it would be necessary or desirable to give in a record accessible to all and sundry. Thus, for statistical purposes it is desirable that in relation to births there should be data as to the order of birth and whether single or multiple, in addition to the ages of the parents and the duration of their marriage; but there is no necessity to give public record to the first items. For deaths, the additional data required beyond those mentioned under (1) include the industry with which the deceased was connected, the length of time he had pursued the occupation which he was following at the time of death, the number of children alive or dead, and, in the case of children, the occupation of the mother—none of which are required for record purposes.

(3) There is no provision for the registration of still-births. Members of the Society are well aware of the importance which has been attached to this question from the point of view of the danger to child life arising from the present arrangements and of the recommendations in its favour of such bodies as the Select Com-

mittee on Certification in 1893, and the Inter-Departmental Committee on Physical Deterioration in 1904.

It may be of interest if I now indicate briefly some of the more important items of information which we should like to procure at the time of effecting registration, and the statistical tables which this additional information would enable us to compile.

At registration of birth it would be desirable to obtain particulars as to :—

(1) Dates and places of parents' birth and marriage.

(2) Whether the mother follows any occupation other than domestic duties, and if so, whether at home or outside.

(3) Number of the children born to and surviving of the marriage.

Of these, number (1) would be embodied in the entry in the birth register, so that the family history could be traced back to these events, while the other items would not be recorded in the register but used for statistical purposes. From this additional matter it would be possible to compile tables of the year's fertility by ages of mothers, occupation of fathers, birthplace of parents, etc.; and new birth tables showing, as is already done in the Statistical Year-Book for Buda Pest, the births recorded in the year by numeral sequence of birth, with ages of parents and sexes of the children, which would afford the material for research into the question of sex ratio as affected by the ages of the parents, the numerical sequence, etc., as well as throwing light on the proportional constitution of a year's births by first born, second born, and so on. From the information as to total numbers of children born and surviving in families recording births during the year, further tables could be compiled showing :—

(1) Fertility to date of married men and women by ages, occupations, birthplace, etc.

(2) Fertility of occupied and unoccupied wives, distinguishing home and out workers.

(3) Size of total and surviving family in relation to duration of marriage, age of mother and occupation of parents, distinguishing first marriages from re-marriages.

The provision for registration of still-births would make it possible to present for the first time statistics of still-births by compiling tables showing :—

(1) Still-births by periods of gestation.

(2) Numbers and sizes of families in which a still-birth occurred during the year, with the numbers of children surviving, dead and stillborn.

(3) Still-births in relation to live births by sex, numerical sequence, ages, birthplaces of parents, and areas.

(4) The effect of the employment of wives in industry on the still-birth rate.

All these tables would break new ground of varying degrees of importance in the study of vital statistics, ground which in this country has hitherto been inaccessible through the failure of our legislation to provide for general and compulsory registration of still-births. It is true that quite recently compulsory notification has been extended to the whole country, but there is a wide difference between notification and registration; and it is to the latter that one must look for full and accurate data.

Among the items of additional information required in effecting registration of deaths are :—

- (1) Date and place of birth and, if married, of marriage.
- (2) Marital condition.
- (3) Length of time that an occupied person has followed his occupation.
- (4) Number of children born and surviving in the case of deaths of married persons.

(5) Whether, in the case of deaths of children, the mother follows any occupation other than domestic duties; if so, whether at home or outside.

Of these, numbers (1) and (2) would be embodied in the entry in the death register, so that the family history could be traced back, while the other items would be for statistical purposes.

This information would enable us to construct tables showing, as is done for most other countries :—

- (1) Duration of marriages dissolved by death; and
- (2) Deaths of males at ages by marital condition<sup>1</sup>; and further, as is already done for Australia,
- (3) Deaths at ages of married males and females, and their issue.

Besides these it would be possible to compile tables (more or less new) to show :—

- (1) Mortality of persons born in various parts of the country and various classes of area.
- (2) Occupational mortality, purged by exclusion of deaths of persons who had changed their occupation shortly before death.
- (3) Infant mortality, analysed to various occupations according as the mother does or does not follow a gainful occupation at home or outside.
- (4) Mortality from certain diseases of women in relation to number of children born.

<sup>1</sup> The marital condition of females has for many years been recorded in the death registers under the heading of occupation.

Of these tables, number (1) would, in conjunction with our present Census tables, permit of comparison of the mortality of London-born Londoners with immigrant Londoners, etc.; number (2) would, for the first time, give us a measure of the reliability or unreliability of rates of occupational mortality in many classes of occupation; number (3) would shed considerable light on the effect of home and factory work for married women on child mortality; and number (4) would be of value to medical science.

Further, co-related and complementary to the fertility tables derived from birth registration would be the statistical tables for marriages dissolved by death, such as those published in the Year-Book for Buda Pest:—

- (1) By ages of parents at marriage; and
- (2) By duration of marriage.

In addition to these, it would be possible to present tables more or less new that would show:—

- (3) Size of total and surviving family in relation to:—
  - (a) Ages of parents (generally of mothers);
  - (b) Duration of marriage; and
  - (c) Occupation of parents (generally of fathers).

If the Registrar-General had power to vary and supplement the information acquired, advantage of this power could be taken from time to time in various ways, *e.g.*, by an inquiry as to the number of rooms occupied by families in which births, still-births or deaths occur, and this information could be utilised in conjunction with some of the tables enumerated. These would, of course, be most valuable in connection with the question of the relation of overcrowding to infant mortality, still-birth, etc.

In effecting registration of marriages the additional information to be recorded would include the dates and places of birth of the contracting parties.

In every case of birth, still-birth, death or marriage, the information collected as to occupation should include industry as well as occupation, so that the records of these events would become comparable with the information obtained in connection with the Census.

From the foregoing it will be seen that each record of any one of these vital events will not only be a more complete documentary identification of the individual, but that it will point directly to the previous step in the family history. Thus recorded, the entry of either a birth, marriage or death will be a starting point from which the family or individual record of the person concerned may be traced step by step so far as the registration records allow. And

while the prime interest of this ability to trace the record is, of course, on the administrative and recording side of my department, it may prove of some value from the statistical side as well.

The foregoing enumeration of possible tables which could be compiled, were the additional information forthcoming, does not pretend to be exhaustive, and some of them are of much less importance than others. The field of inquiry which could be opened out is very extensive; and all that I have done and, indeed, all that is necessary to do in addressing the members of this Society, is to indicate some lines which we desire to pursue. It would not be possible or profitable to endeavour to cover even the ground indicated in any or every year. It is, indeed, important that a department like my own should resist the tendency for statistical tables once compiled to become stereotyped. As will readily be seen, some of the tables above mentioned would be of peculiar value only in conjunction with a census, while others would be worth repeating only at intervals of five or ten years. Of their value to statistical and demographic science there can, I think, be no question.

Of the list of defects in the powers given under the present Registration Acts there are some which have no statistical interest, however important they may be from the point of view of security against fraud and crime. Such are the absence of any proper verification and certification in our law of the fact of death; and the dangerous laxity of existing burial procedure, which, though beyond the scope of registration pure and simple, might well be remedied in a measure of registration reform. It would be outside my present purpose to lay stress on the complications and difficulties, arising mainly from obsolete machinery, with which the expert staff of the General Register Office has to contend in the daily work of administration of the registration of births and marriages. But I may perhaps mention one defect in our arrangements, which has come rather prominently before us during the war, and which is almost purely administrative, or only statistical through its administrative action. This is the question of the issue of copies of certificates of births, marriages and deaths, and their cost. Let us take birth certificates. Birth certificates are now required in connection with a whole series of Acts of Parliament, such as those affecting elementary education, factories and workshops, friendly societies and trade unions, savings banks, old age pensions, National Health Insurance. They might well be required for other purposes in which proof of age is necessary. The statutory fee for a certificate, including the search and penny stamp,



is 3s. 7d.; but in special cases, as those noted, this high rate has been modified by legislation, with the result that a state of things has come about by which different rates, varying from the original 3s. 7d. to 6d., are now being paid for the same service, the cheap certificates being only available for the special purposes for which they are procured, so that the same individual in the course of his life may have to possess himself of several birth certificates. No legislative provision on the other hand exists for reducing the charge of 3s. 7d. in the case of certificates required for the purpose of obtaining separation allowance for dependants of soldiers and sailors. The first thing obviously required is a consolidation of these various rates, and the substitution for them of a certificate to serve all the purposes for which proof of age may be demanded, to be issued at a uniform flat rate—if, indeed, any charge should be made for the original document. The provision of such a document would not only greatly simplify administration, but would also save a considerable amount of trouble and expense to the individual. A further bearing of this suggestion will be mentioned later.

Two other points remain for mention. The inordinate time allowed by the present law for birth registration may be noticed, in the first place, on account of the duplication of work to be referred to, and the incidental effect of this and other causes on the accuracy of the registration, and therefore of the statistics, of birth. The time allowed for the registration of a birth is nominally forty-two days and actually three months. The original Registration Bill of 1836 made notification to the Registrar compulsory within three days, but treated registration as a separate proceeding to be effected subsequently. This distinction between notification and registration was preserved in the Act itself, which allowed notification within forty-two days, but threw the onus of registration not on the informant but on the registrar. And the divorce between the two has been emphasised by the Notification of Births Act, which requires notification of the occurrence of a birth within thirty-six hours to the Medical Officer of Health, and which, while it may have proved highly beneficial from the point of view of infant life preservation, has not been an unmixed blessing to registration. Cases occur where notification is mistaken for registration, and others in which registration is delayed unduly because notification has already taken place, and the effect upon registration of births has been represented to me as serious by some authorities. Both from the point of view of the convenience of the public and of accurate record, it would be much more satisfactory that one act only should be required of the parent, and that accelerated birth

registration should be combined with an immediate notification to the registrar of the fact of birth by the doctor or midwife. If the doctor or midwife in attendance at a birth were required to notify the registrar of the fact forthwith and the registration were made compulsory within ten days, there would be an efficient check on registration and ample opportunity for such steps being taken as were deemed necessary for the care of the child. Undue weight has been given in the past to the supposed desirability of securing the mother as informant of a birth, but so far as inquiry into the practice of other countries goes to show, registration is not less efficient or complete where the period allowed is so short as to preclude the mother from acting as informant. Incidentally this procedure would provide verification of the fact of birth, which is ignored under the present system. It may be pointed out that it is as easy to effect registration of a birth that has never taken place as it is to avoid registering a birth that has. The cases where this has been done that have come before the notice of my office are, it is true, rare; but those cases in which prosecutions have taken place are no index to the number that may have occurred. Again, under the existing system the same child may be registered twice or more in differing names by different persons. Instances have been known where this has happened. Most frequently it has been in cases where a baby has been adopted and the adoptive parents have registered the child as their own. Here, again, it may be safely said that the practice is probably much more widespread than would be inferred from the cases that come to light.

A great deal more serious in its statistical aspect—the point, indeed, is wholly statistical—is the fact that the certificate of the cause of death is not confidential. The National Association for the Prevention of Infant Mortality at a conference in August, 1913; the Executive Committee of the General Council of Medical Education and Registration, 1914; and, finally, the Royal Commission on Venereal Diseases (1915), have all strongly urged the adoption of confidential certification, which, so far as I have been able to ascertain, is practically universal on the continent of Europe. A few words will show the bearing of the question on our vital statistics. It is difficult, indeed, to see on what grounds the divulgence by the doctor, immediately after the death of his patient, of what may have been a secret justly regarded as inviolate during that patient's lifetime, can be justified. For that is what the communication to the relatives of the cause of death and its practical publication for the information of those interested or curious by its inclusion in a register open to inspection at the cost

of one shilling amounts to. The chief objection, indeed, to the present system from a statistical point of view is that, though the present law may demand, it cannot secure, betrayal of the dead man's confidence. This difficulty arises in its most acute form in the case of deaths from venereal disease. Most of my hearers, I think, would have taken the same course as the doctor who, in reply to an inquiry from my office as to a death he had certified as due to cerebral tumour, replied that the "Disease was Gumma. "None of his family ever knew he was a syphilitic subject, and it "was most undesirable that they should—they would have done if "I had certified more definitely." In fact, though the law requires statement of the cause of death in all cases, it cannot in its present form secure it. The records of my office consequently give no idea of the mortality from venereal diseases or from alcoholism, or probably other drug habits, while the figures relating to various other causes of death are prejudiced in a minor degree. Thus, curiously enough, reluctance to certifying cancer and tuberculosis as a cause of death is sometimes met with, even apart from considerations connected with life insurance.

Insurance considerations undoubtedly exercise a very prejudicial effect upon death certification under the present open system. Numerous industrial insurance policies are taken out with a declaration by the insurer that he is not suffering from various forms of chronic disease, such as cancer, and where this has been done there may be a strong motive for concealment of the facts in a document to which the insurance company has access.

Other reasons than those quoted may, perhaps, exist for reluctance to insert a candid statement of the cause of death in the certificate under present circumstances. But I need not labour the point, since the evidence given before the Royal Commission on Venereal Diseases, including that of Dr. Stevenson, bears eloquent witness to the effect upon the accuracy of our mortality statistics of such considerations as I have mentioned, and sufficiently explains the attitude of my department on this question.

Such, then, are some of the particulars in which the records necessary for the improvement and extension of our vital statistics are either altogether wanting or defective in accuracy. To remedy these defects and give wider powers and more discretion to the administration would, of course, require legislation. But if legislation should be introduced it would be desirable, I think, that it should not be limited to these objects. I should personally like to see it extended (provided that the interests of the existing excellent registration service were properly safeguarded) so as to

embrace a reform which would dissociate the local service of registration from the poor law and link it up with the public health authorities. I am aware, of course, of the practical difficulties which would have to be faced if such a measure were contemplated, but the arguments in favour of the change seem to me very strong from the statistical point of view. The same idea seems to have occurred to the Society for Medical Officers of Health, for I notice that it was advocated by them in a memorandum which came before the Royal Commission on Venereal Diseases in 1914, and that Dr. Parkes, Medical Officer of Health for Chelsea, and Dr. Chalmers, Medical Officer of Health for Glasgow, and at that time President of the Society, strongly supported the suggestion that "if there is any revision of the administrative provisions for the registration of births, deaths, etc., the Medical Officer of Health should be made the official responsible for such registration." The present system dates from a time when no local administrative areas covering the whole country other than the poor law areas were in existence. Under it the local registrar is appointed by the board of guardians whose interest in registration begins and ends with the appointment. There has never been a functional connection of any importance between the poor law and the registration service. It is true that the immediate statistical difficulty has been circumvented in the manner I have described, but there is still no direct connection between the registrar of births and deaths and the medical officer of health. The intimate association of births, deaths and still-births registration with sanitary matters makes it in the highest degree desirable that in any measure of reorganisation the two services of registration and public health should be as closely related to each other as possible. The measures taken to ward off the risk of preventible death from the community are carried out by the sanitary authorities, and it seems fitting therefore that the record of the results of their labours in the shape of the registration of deaths and still-births should be in the hands of these authorities, to which, under the present system, these records have to be communicated at second hand. And early knowledge of the births taking place in their areas is of such practical importance to these authorities, that it has recently been found necessary, as above described, to duplicate the information required concerning births by instituting a system of notification to the sanitary authorities in addition to registration. In these circumstances it seems obvious that registration of births should be carried out by the authority which requires the information and has the greatest interest in obtaining it efficiently.

This is not the place to elaborate the suggestion, nor to indicate either the grouping of urban and rural areas which would be suitable and practicable, or the manner in which the central control which is essential might be secured. In many foreign countries registration is a matter of local administration, the statistical results alone being dealt with by the central or national authority, *i.e.*, the State statistical department. A change in the direction now suggested would place the organisation of the registration service largely in the hands of powerful local bodies, but should not be allowed to weaken the central control which distinguishes our system from that of most other countries. I think it is important that this control should be maintained in the fullest possible sense. It is advantageous both from the point of view of registration as an individual and national service, and from that of the statistical results which are obtained under it. It provides a central repository where all vital records may be found, and affords a guarantee that all data are collected and treated on identical lines; but it is obvious that if the suggested change could be effected and registration for the first time placed under authorities who would have a direct interest in the efficient performance of the duties, not only would the considerable labour of transposing the figures at the central office be avoided but we should secure much skilled and intelligent co-operation in the production of statistical material and immensely reinforce the practical utility of the statistical work of the central office.

I should like to pursue this question of improvement in the data for statistics, or in the method of collecting them, a little further. There is no longer any excuse for failure in the treatment or presentation of statistics, there is no lack nowadays of trained statisticians, and it would be easy to point to official publications in which statistical tabulation has been brought to a high level of excellence. But the collection of data is governed by administration; and a statistician will therefore be led on to inquire what administrative changes would be likely to assist him in his object. I have given an instance of what I mean in the suggestion that the work of the local registrars should be linked up with that of the local administrative authorities. Another may be found in the forthcoming General Report on the Census, if I may be allowed a further reference to our own work. In that report we have expressed the opinion that no very marked advance upon the result attained in 1911 is likely to be made in future, except by a radical improvement in the method of collecting the data. The schedule of questions is already more than sufficiently complicated, and it is clear that, so long as the system of reliance on the practically

unchecked returns of the householder which has characterised our Census since 1841 is maintained, all the questions on the Census schedule are liable in greater or less degree to be carelessly or incorrectly answered, in spite of the efforts which are made to train the population through lessons to the children in the schools, trade union appeals, newspaper articles and the like. What is required, in our opinion, is much more effective assistance and supervision by the enumerator. But it is a question whether these could be provided except by means of such co-operation of the local administrative authorities as has been suggested in the case of births and deaths registration. If the registration service were to become the concern of the local authorities of the country, the local conduct of the Census would naturally follow, our present dependence on casual untrained labour might be diminished, and the difficulty of increasing the efficiency of the enumeration process—the cost of which under the present *ad hoc* system would be very heavy—might find a solution; for trained and responsible local officials in considerable numbers are always in normal times at the disposal of the local authorities, and there might be some chance of appealing successfully to local patriotism for assistance.

From the point of view of vital statistics the want of a quinquennial census has never been more severely felt than at the present moment. Even in ordinary times the method of estimating the changes in the distribution of the population from the date of the last Census leaves much to be desired. The subject has been discussed in recent years by the Society, and the various methods suggested have been carefully considered; but when all is said and done, no mathematical calculation can ever really meet the difficulty. Yet it is a matter of cardinal importance in the presentation of accurate rates for administrative areas. For the total population present methods of estimating for the later intercensal periods may, perhaps, pass muster, but for individual administrative areas they necessarily ignore the fluctuations caused by internal migration. How very materially these local fluctuations affect the vital statistics for administrative areas may be instanced by reference to the first and third quarterly returns for 1911. In the first of these the old estimates of population are in use; in the latter the new estimate on the basis supplied by the Census. Among the great towns will be found instances of populations estimated on the old basis which are 10, 15, 20, 25 and even 30 per cent. in excess of the revised figures, while there are others in which the estimates are from 10 to 25 per cent. too low. Among the smaller towns the same divergencies prevail. The effect on local statistics can be



readily imagined, for in many cases areas in close proximity are affected in precisely opposite ways. For example, while the population of Hornsey at the beginning of 1911 was over-estimated by 19 per cent., that of Finchley was under-estimated by over 30 per cent. Wolverhampton was over-estimated by 13 per cent.; Coventry under-estimated by 25 per cent.; Huddersfield under-estimated by 12 per cent.; Halifax over-estimated to the same extent. This, however, is by the way. Owing to the unprecedented dislocation of the population caused by the withdrawal of men of military ages from civil life and the demand for munitions factories and war services, the data for calculating local birth and death rates with any approach to accuracy simply do not now exist. National registration has, indeed, helped us, but without annual revision it is hardly necessary to say that national registration can supply no basis for calculations in this and future years. But the need of some kind of census or enumeration for statistical purposes at the conclusion of the war was one of the points most insisted on in two discussions on papers read before the Society last session. It is, of course, a question whether it may not be required equally for various administrative purposes; and if so, it is to be supposed that the whole matter will in due course receive attention in the proper quarters.

It is, perhaps, to national registration, improved and developed from the recent interesting experiment, that we might look for the best solution of this problem. Nothing was more remarkable in the whole operation than the enthusiastic and invaluable assistance rendered by voluntary workers all over the country unless it was the energy, ability and goodwill with which the bulk of the local administrative authorities responded to the call of the President of the Local Government Board. To repeat so great an emergency measure as this was under existing conditions might, no doubt, be an impossibility. But if some local arrangements such as I have contemplated for births and deaths registration should come into being with the consent of the local authorities, there would be the nucleus in each suitable local administrative area of an organisation which could deal with National Registration as part of its normal duty. It is conceivable that a national register annually revised might be found to replace, or to assist in the formation of, certain registers or lists, such as voting lists, military registers, aliens registers, rate books and so on, which are either now compiled specially or may be required to be so compiled in the future. How far this would be feasible would be a matter for inquiry. I merely mention it as an idea which would naturally occur to anyone trying to consolidate



the multifarious calls which, in the increasing complexity of modern social conditions, are being made upon the public. Such a register, at all events—and this is the reason why I have allowed myself to be tempted into this speculation—would solve our difficulty about local birth and death rates in the most complete fashion. No longer should we be dependent on estimates, however ingeniously framed, but we should have the actual facts as to the distribution of the population annually at our disposal for our calculations, and the accuracy of the basic data for our vital statistics would be vastly increased. The bearing of such a measure on the work of the Census in future years would also be far-reaching. While on this subject of registration I may, perhaps, be allowed to refer briefly to a point which is closely connected with it. An obvious difficulty in connection with such a proposal is that of distinguishing individuals of the same name. The number of John Smiths in England is enormous, but for all the purposes of registration enumerated above it is necessary to distinguish the individual John Smiths in such a way that the one sought for any purpose can be immediately picked out from amongst the rest. It is here that the further use of the standard birth certificate, referred to above, might come in. As this document would be required on a number of occasions during the lifetime of an average man or woman, it may be presumed that it would come to be generally obtained and preserved as a matter of course. This custom, promoted by recent legislation, which demands evidence of age for so many purposes, is, indeed, already in process of formation, and would be greatly assisted by the simplification proposed in regard to the form of certificate. Assuming then the universal possession of birth certificates it is easy to see that these would necessarily also constitute identity certificates, since John Smith's certificate would identify him as that John Smith who was born on a certain date in a certain place, of named parents whose dates of birth were also recorded. I will resist the temptation to fill in the scheme by suggestions which would occur to those who, like members of my own department, have had recent experience of registration problems, for facilitating or ensuring not only the identification of the certificate with the entry in the register, but also the identification of the holder of a certificate with the person referred to in that document. If I were to venture into any further detail I should probably lay myself open to a charge of desiring to Prussianise our institutions. Registration, however, need not necessarily be accompanied by the elaborate system of police surveillance which goes along with it in many foreign countries, and I cannot help thinking that changes in this direction might be grafted on to our existing

arrangements without causing undue disturbance. They might, indeed, tend rather to simplification than to additional complication; and it is sufficiently obvious that if it were found possible to set up some system of general registration and identification of individuals, certain administrative problems which have come rather prominently to the front would be easier of solution than they are at present.

Whether the demands of the future are likely to compel an effort to overcome the undoubted difficulties of this question I cannot tell, and I have alluded to it only because the statistical possibilities which would be opened up by such a measure, and which alone concern us here, are certainly most attractive. But although, as I have said, the collection of statistical data is largely governed by administrative conditions, we cannot, unfortunately, expect, however urgent our representations may be, that legislation will be framed solely with a view to obtaining the best possible statistics, and all that usually remains for statisticians is to make the best use they can for their own purposes of such opportunities as legislation throws in their way.

I will conclude this address by the customary retrospect of the events of the past year as they have affected the Society. We have to record and deplore the deaths of several of our Fellows, and, first of all, that of our late President, Lord Welby, whose place as I have mentioned was taken by Lord George Hamilton for the remainder of the session. I can add nothing to the appreciation of Lord Welby by his lifelong friend, Sir Algernon West, published in the January number of the *Journal*, except to express the indebtedness of the Society to him for his acceptance of the Presidency at his great age, and for the address which he delivered in November, 1914, on the Progress of the United Kingdom from the War of the French Revolution, a paper involving much labour and research. The death of Sir Richard Biddulph Martin, Bart., last September was another heavy blow to the Society. He had been a Fellow since 1872 and Treasurer from 1875 until his death, and he was elected to the Presidency in 1906. A paper which he read in 1873 on the question of the State purchase of railways was of exceptional interest, and led to a discussion which was adjourned for two subsequent meetings, an almost unique circumstance, I should think, in our history. His active interest in the Society and his friendly presence have been much valued by his colleagues, and a resolution framed at a special meeting of the Council will be found in the next number of the *Journal*. I may, perhaps, mention that the Council hopes to secure the services of his nephew, Mr. Robert Martin-Holland,

C.B., as Treasurer in his place. Among other losses are those of Mr. Justice Beverley and Mr. A. D. Provand, who were donors to the Library on different occasions; of Mr. Samuel Whitbread, who had been a Fellow since 1859; of Mr. Richard Price-Williams, who, though he had severed his connection with the Society shortly before his death, had been a contributor of several important papers to the *Journal*, and had served frequently on the Council; of Mr. Thomas G. Ackland, an eminent actuary, who had served on the Council and the Library Committee for several years, and had audited the accounts of the Society in 1915 and 1916; of Sir Robert G. C. Mowbray, Bart., a well-known Fellow of All Souls' and for several years a Member of Parliament; and of Sir Lesley Probyn, K.C.V.O., who had served on the Council almost continuously during the past twenty years, and contributed to the *Journal* a paper on Gold and Silver, and the Money of the World, in 1895, and to whom the Society, as we have recently been informed, is indebted for a generous and welcome legacy of *rool*. We shall also, I am sure, desire to commemorate one of our younger Fellows, Mr. F. H. Keeling, the only member of this Society, so far as I know, who has been killed in action in the present war. He was already distinguished as a student of social and economic conditions, and had, among other things, edited that very useful publication, the Blue Book Supplement of the *New Statesman*. And I must not omit to mention the death, as the result of a tragic accident, of an Honorary Fellow, M. Emile Waxweiler, who was Director of the Solvay Sociological Institute in Brussels, and who had been engaged on important work in London for the Belgian Government.

As regards the work of the Society, there is little to be said. Under the difficult conditions of the present time, described in the Report of the Council presented last June, we have succeeded in carrying on better than could have been expected, considering the heavy call which has been made upon our most active members for work in Government departments, a fact, however, upon which we may congratulate ourselves. A decrease in our numbers of twenty over the previous sessional year is not to be wondered at, and our best hope of recovering lost ground lies in a united effort to maintain at as high a level as possible the standard of our papers and discussions. Of this I trust there is every prospect in the ensuing session, as the Council have already some papers in view bearing on problems arising out of the present war which ought to prove of practical use. Among them, I hope, will be papers on the economic condition and trade prospects of certain Allied nations, beginning with one by Baron Alphonse de Heyking on Russia in January.