

Sir Thomas Larcom- The Social Surveyor

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My story relates mainly to the middle of the nineteenth century, more than 160 years ago, at a time when the island of Ireland was part of the United Kingdom, with, generally speaking, separate administrative structures in Ireland but with one Parliament- that at Westminster.

In the mid 1820s the Government decided that a general survey and valuation of the whole of Ireland was required to provide the best mode of apportioning more equally the local tax burdens. The Board of Ordnance of the UK was commissioned to undertake the surveying, which was carried out by the Royal Engineers.

Now enters the “hero” of the story, Thomas Aiskew Larcom, who was born in Gosport, England in 1801, but whose duties as an officer of the Royal Engineers brought him to Ireland in 1826 where, within a few years, he became Resident Superintendent of the Dublin Office of the Ordnance Survey.

During his 20 years in that post Larcom planned to make the field operations of the Ordnance Survey a basis for the collection of comprehensive information about the Social Economy of every parish in Ireland, to be published as descriptive memoirs of the Survey together with the topographical maps. Although his plans were frustrated with only one parish Memoir actually published, the involvement led to his attention being very much drawn to statistical subjects, particularly demography.

Much more than an able organiser and a skilful engineer, he became an antiquarian and a social historian. This led to his appointment as one of the Commissioners for the 1841 Population Census of Ireland-the role which is the principal theme of the story, as it brought him significantly into the field of Official Statistics.

Census of 1841

The Irish Census of 1841, the third in a decennial series, was taken under legislation passed by Westminster Parliament which specified that particulars with regard to *age, sex, occupation and place of birth* be ascertained for each person by visit to each house by the enumerators (prescribed by the Act to be the members of the recently established, country-wide, Irish Constabulary Force.)

Fortuitously, the Act gave a degree of freedom to the Chief Secretary of Ireland to arrange for “*the collection of such further particulars*” as he deemed necessary. This flexibility devolved to the three Census Commissioners appointed by him and they agreed that the census of 1841 should be more a social survey rather than the mere enumeration of the population, families and houses, which had formed the principal output of the 1821 and 1831 Censuses.

Larcom seems to have played the major role in the plans adopted and also in the final analysis of the results. In his own words “I obtained the concurrence of my colleagues in such a careful arrangement of those additional inquiries as should subsequently enable us by their combination to throw some light on the condition

of the people and the result has been that the present Census presents more the aspect of a statistical document than returns of the kind have done before.”

At that time there was no international forum for getting agreement on the scope or methodology of census activities, or indeed for exchanging information on such matters. The I S I did not emerge until 1885 and its precursor, Le Congrès International De Statistique, originated in 1853. However Larcom and his colleagues would have had the benefit of the Report, in April, 1840, of the *Committee appointed by Statistical Society of London to consider the best mode of taking the 1841 Census of the United Kingdom* . . . That Report gave details of census practices in a number of countries and made suggestions for the GB and Irish censuses, which were separate undertakings. Larcom was also quite familiar with Quetelet’s work and publications, dealing with the possibility of using statistics to measure social phenomena.

It was decided to break with tradition and to have information collected in individual household documents rather than in enumerators’ notebooks as heretofore. In fact the strategy was to use **two** different but linked returns:-

- A **family form** covering, for each individual, all facts of a personal nature; this form to be left, for self-completion, with the family on the enumerator’s first visit and collected on a second visit;
- A **housing form**, (to be completed by the enumerator), covering the number of families in the house, the physical characteristics of the house and ,for the agricultural population which predominated, the extent of the land, and the quantity of livestock held.

The novel features of the family form, which was in three parts, were:-

1. the inclusion in the main schedule of specific columns , not only for *exact age, sex and occupation*, of everyone present on census night, but also for *relationship to head of family, marital status, year of marriage and ability to read and/or write*;
2. the inclusion of a supplementary table for usual residents absent on census night, specifying inter alia, age, sex, and relationship to head of house; (*This information was not developed to its full potential*)
3. the inclusion of another supplementary table, retrospective in nature, to record “*any members of the family, servants or visitors who have died while residing with this family*, during the ten years prior to the census, specifying, in each case, sex, age, relationship to head of house, year of death and “*disease which caused death*”(*A return that yielded very useful information on the profile of deaths in the absence of a registration system*)

The 1841 enumeration system was more highly organised and coordinated than its predecessors which were taken under the superintendence of the Bench of Magistrates in each county.

Arising from the work of the Ordnance Survey of Ireland which was almost complete by Census time, detailed maps (and lists) were available at the Barony (i.e. sub-county) level, showing all territorial boundaries especially for Parishes and Townlands (the smallest territorial unit that existed), and exhibiting every house! Before census date, lists were prepared within each Constabulary District specifying the enumerator for each townland (or street in town areas). There were more than 60,000 of these and the set of completed forms for each such townland, formed the basic units of aggregation within the Census office in Dublin Castle

The results, and detailed analysis, of the census were published in a massive volume consisting of two parts:-

- General Report signed by the Commissioners comprising 92 pages of textual and analytical material and 500 pages of tables; and

- an additional report upon the Tables of Deaths-a further 83 pages of text and analysis and 200 pages of tables- signed by William .Robert.Wilde (to whom I will return).

The date was 14th August, 1843.

An interesting feature of the first release of the Report was that it occurred before presentation to Parliament (although totals for population and families had been presented in April)! The British Association for the Advancement of Science was meeting in Ireland (in Cork) that August and a copy of the Report was forwarded to the President of the Association by the Lord Lieutenant, and on August 22nd, 1843, Larcom read a paper on the Census results to the Statistical Section. Earlier that week Larcom had read a paper on “contour mapping” to the Mathematical and Physical Science Section.

A listing of the principal sections in the textual part of the Report gives some idea of the scope of that Social Survey Census:-

Territorial divisions;
 Persons;
 Houses;
 Families;
 Occupations;
 Emigration-Home;
 Emigration-Colonial and Foreign
 Rural Economy;
 Education;
 Ages
 Vital statistics (births, marriages, deaths).

I will visit most of those topics individually

Territorial divisions

A fundamental innovation was introduced over and above existing territorial divisions and independent of them; this was to make a distinction between the urban and the rural populations. Within each county the term *Civic District* was used to identify a grouping of all towns containing 2000 inhabitants and upwards –the urban dwellers; and the term *Rural District* for the remainder of the county-the non urban dwellers. This subdivision played a central role in the detailed tabulations of most of the census variables.

Houses

For each house the enumerator recorded (a) the number of rooms-*a measure of extent*; (b) the number of windows-*a measure of quality*; and (c) material of walls and roof –*a measure of solidity or durability*. A scheme of ranking was established for each of these elements and from this multiple ranking procedure **four classes of houses** were adopted after practical testing on houses in different localities.

- In the lowest, or fourth class, were comprised all mud cabins having only one room;
- In the third class a better description of cottage, still built of mud but varying from 2 to 4 rooms and windows;
- In the second class, a good farm house, or in towns, a house in a small street , having from 5 to 9 rooms and windows;
- and in the first class, all houses of a better description.

A further step, of special relevance for centres of population, was to create a fourfold accommodation scale taking account of number of families in the house as well as the class of the house itself. Thus:-

- First class accommodation consists of first class houses each containing one family;
- Second class accommodation covers second class houses with one family **and** first class houses with two or three families ;
- Third class accommodation groups all third class houses, second class houses with two or three families, **and** first class houses with four or five families;.
- Fourth class accommodation comprised all fourth class houses **and** all houses of the other classes with more than one family.

Persons within Families

The concept of family used was equivalent to the household or social family, including not only the natural family but also other relatives, servants, guests etc. On the basis of the information in the family form on “relationship to head of family”, three groups of people were identified-

- (a) Heads of families with their spouse and their children (i.e. the members of natural family);
- (b) Servants;
- (c) All others,(labelled as “visitors” but probably consisting mainly of other relatives living in or visiting the house) .

(Generally this subdivision was not used in any cross classification other than territorial.)

Occupations

The Report explained the approach adopted to this complex concept, as follows:

“When framing instructions for filling the personal returns of each Family, we did not prepare any list to which the nomenclature of Occupations should be confined. We considered it better to leave the head of each family to describe the occupation of its several members, according to his own understanding or terms. This mode of proceeding brought the whole range of occupations, in all their shades of variety and designations, before us and enabled us at once to apply a more comprehensive and accurate classification than would otherwise have resulted. Under this heading we have given in the Tables a classification of **Families** as well as of **Persons**.”

Families were classified on two different bases,
 1st according to their “pursuits”, and
 2nd according to their “means”.

Persons were classified as they minister to the various wants of life.

The first family classification, according to their “pursuits”, distinguished families supported by:- (a) Agriculture (b)Manufactures, Trades and Handicrafts (c) Other.

The second classification of Families, “according to means” had three headings:

- (1) **Vested means, Professions etc.**{heads of families possessing capital in wealth or professional knowledge, or whose means of subsistence enable them to live without labour };
- (2)**The direction of Labour**,{heads of families who have some fixed income or employment; also, artisans who possess acquired capital in the knowledge of some trade; neither of which classes, however, is wholly exempt from labour }
- (3) **Their own manual Labour** {heads of families, without capital, in money, land, or acquired knowledge, *i.e.* labourers, and persons who obtain the means of existence by employment which requires little or no instruction. }

Persons

Persons of fifteen years and upwards are classified into some 450 distinct descriptions identified from the returns themselves and grouped in the categories as they “minister to the various wants of others”. The Report explained that “the effect of this classification will be to exhibit the individual under a double aspect, as on the one hand engaged in benefiting himself, whilst, on the other, he benefits society at large. Thus traders in, or manufactures of, Food minister to Hunger – of Clothing to Nakedness- and of Medicine to Sickness.”

“In the list of Trades we have abandoned the common alphabetical arrangement as being of no use, except where it may aid the pursuit of a known term. We have in preference divided them, in the first instance, as nearly as possible into groups, according to the relative simplicity of the process performed, placing first the producer of raw material, then its manufacturer or combiner with some other material, and lastly the distributor or salesman. Thus the farmer grows the corn, which is ground by the miller, and sold by the corn dealer or flour merchant”. This meant, for example, that occupations within the Clothing category were divided into Cloth Manufacturers; Leather Workers; Clothes-Makers; Traders.

The eight categories (for males and females separately) were:

Physical wants: Food, Clothing, Lodging, Health, Charity.
Moral wants: Justice, Education, Religion.

Data for these categories were given for each parish while the full list of 450 occupations was given at county level.

Education

The census question asked whether the person (a)*can read* ; (b)*can read and write*;(c)*cannot read* and the results were included in the parish analyses

The results at County level showed a strong correlation between geographical distribution of housing quality and level of elementary education as shown by maps based on Rural districts, and by charts based on county rankings.

Cross classification of the literacy data by age group enabled Larcom to demonstrate how elementary education appeared to be advancing during successive birth cohorts.

As a separate exercise related information was collected by securing special returns from schools showing, by ages and sex, the numbers of pupils attending school in the week preceding the Census –this was preferred to the more usual alternative of asking for numbers on the school roll.

Ages

Information was sought on exact age, and Larcom decided to compile and publish the data in detail for single **years of age** “so that defects, as well as advantages, of the system may be fairly seen”. He was referring to the well-known phenomenon of the concentration at round numbers e.g. for the decimal ages 20, 30, 40, etc.- a feature strongly reflected in the Irish results which gave him scope for a detailed analysis of alternative grouping systems such as having the swollen ages as midpoint of intervals rather than as end points.

I quote from the Report, with reference to plotted age charts

“The ordinates representing these ages are at first sight so formidably irregular, that they would seem to afford no means of adjustment or correction. But a close inspection will show that the irregularities follow a very constant law, and when reduced to an equated line, exhibit a curve very consistent with the results of established Age Tables.”

The numbers at each age derived from the curves are given separately for each sex within Rural and Civic Districts.

The Report noted that the strong grouping tendency for returns of age of the living was also present in the returns for deaths.

Vital Statistics

In Ireland in 1841 there was no general registry for births, marriages or deaths, existing uniformly for the whole population. However the Census Report prepared estimates (acknowledged to be defective) of these three categories for each of the ten years preceding the census date, combining information collected on the different parts of the Family Form. While these estimates could not be taken as filling the registration gap, they provided an excellent basis for relative incidence in different regions, and, especially for deaths, for establishing profiles of cause and age.

Births

Estimates of the number of births, for each of the ten years preceding the census, were derived by adding the numbers now alive at each year of age to the numbers whose age at death shows them to have been born in the same year. These estimates were made by sex within Civic and Rural districts of each county

Marital status and Marriages

The individual returns showed, for the first time in an Irish census, whether each person in the family was, or had been, married, together with year of marriage. From this it was possible to divide the whole community into “married”, “unmarried”, and “widowed” and to determine the ages of those married at the time of marriage.

For marriages that took place in the decade preceding census date, it was possible to determine the number of children of each sex, born to those marriages, as particulars of the deceased members and absent members of each family were collected as well as for those present on census night. For those marriages where both parents were present on census night, a special analysis was undertaken to determine how the fecundity of marriages was linked to the parental age differences.

Deaths

The materials for this branch of the census report were taken from the part of the family form in which every head of a family was requested to insert all the deaths which had occurred while residing with his family within the last ten years-stating the age, occupation, and cause of death of the deceased. Retrospective information was also collected from every hospital institution.

From all these returns, tables were compiled using the same territorial and age divisions as in the census of the living with the addition of “cause of death” as a most important variable. The compilation was carried out under the direction of **Surgeon William Robert Wilde** who had been employed in a role that might be called “medical superintendent of the census”

As already mentioned a separate and substantial part of the Census Report was devoted fully to his results which were based on returns covering more than one million deaths, and yielded, for the first time in Ireland, a profile of the age at death, and causes of death, by locality!. One of the high points of Wilde’s extensive research on Irish mortality was a 94-item classification of fatal diseases using existing English medical terminology linked to colloquial terms, and, where appropriate, giving names in Irish (Gaelic) and their literal English translation.

Wilde's input to the 1841 census, and indeed, in an expanded way, to succeeding censuses for which he was a Commissioner, entitles him to inclusion in the Irish Greats in the statistical field (apart from his reflected glory as the father of Oscar Wilde, "a writer of genius"!)

The Report was under no illusions about the quality of the estimates for vital statistics, especially for deaths, and repeatedly stressed the need for a full registration system. However it was 1864 before this gap was filled and the special household census return of deaths in the preceding decade was retained for three more censuses.

Rural Economy

It will be recalled that the housing form of the 1841 census, apart from housing characteristics, also recorded information on area of land and details of livestock held. While the results are summarised and analysed in the Report they were not prime objectives and, because of some ambiguities, must yield pride of place to the results of the mid-summer **agricultural census of 1847** which was also entrusted to Larcom.

In that census for each holding the total area, and the area under specific crops was ascertained as well as the numbers of each category of livestock. Again the constabulary had the role of enumerators and again townlands were at the centre of the process but there was an excellent control-The exact area of each townland had been compiled in the Ordnance Survey and furnished to each enumerator who had to check the total of the separate holdings within each townland against the known total area.

Larcom

In 1846 Larcom's Ordnance Survey duties ended and on secondment from the Royal Engineers, he finally gave his administrative talents entirely to the Civil Service in Ireland. That year he became a Commissioner of Public Works just when the Great Famine was at its peak and was in charge of public-work schemes for famine relief. He also became chief commissioner of an inquiry into the working of the Irish Poor Law which involved proposals for boundary reforms at detailed local level. Incidentally in 1847 he was one of the founder members of the Dublin Statistical Society, which, years later, became the Statistical and Social Inquiry society of Ireland.

As already mentioned in 1847 he ventured further into official statistics when, despite his other onerous duties, he inaugurated the annual census of agriculture and retained direct responsibility for it for the next three years when it passed to the Commissioners appointed for the 1851 Census of Population. It was intended that Larcom himself would be Chief Commissioner for that population census, but because of serious ill health he had to decline the offer, commenting that "if he were able to do so he would have wished to push the 1851 census as far beyond that of 1841 as that exceeded the earlier operations"! In the event the 1851 census followed closely the template Larcom had devised a decade earlier which, unwittingly had provided a valuable basis for assessing the many aspects of social change that resulted from the Great Famine of the mid 1840s

All of these activities gave him an encyclopaedic knowledge of Irish conditions. When in 1853, the post of **Under-Secretary for Ireland**, highest official in the Irish administration, fell vacant, it was given to him. Some idea of the esteem in which Larcom was held is conveyed by the fact that that office was, for the first time, made **permanent and non-political**, especially so that he might retain it-which he did, with distinction, for six administrations. One biographer encapsulated his character in the title "An Imaginative Empiricist".

During his career his rank within the Royal Engineers had progressed steadily and in 1858 he was promoted to Major-General. In 1860 he received a knighthood. He retired from the office of Under-Secretary in 1868 and in that year he was admitted to the Irish Privy Council and created a Baronet..

Sir Thomas died in England in 1879, where he spent his last years compiling, with his invariable thoroughness the records of his own time in Ireland which formed the numerous volumes known as “the Larcom Papers”, held mainly in the manuscript records of the National Library of Ireland.

REFERENCES

Census of Ireland, 1841; (Dublin, 1843)

A Paper Landscape-The Ordnance Survey in 19th Century Ireland *J H Andrews*; (Dublin 2001).

Ordnance Survey Memoir of Londonderry (Parish of Templemore); (Dublin, 1837)

Centenary Volume, Statistical and Social Inquiry Society of Ireland; (Dublin, 1947)

Journal of the Statistical Society of London, vol. III; (London, 1840)

Journal of the Statistical Society of London, vol. VI; (London, 1843)

Report and Transactions of the 13th meeting of the British Association for the Advancement of Science, 1843

An Imaginative Empiricist-Thomas A.Larcom. *Thomas E.Jordan*. (New York ,2002)

Larcom manuscripts 7525-7, 7743 (Collection List No. 127;National Library of Ireland)

Online Historical Population Reports (and Essays); <http://www.histpop.org>