

**Study 4093 - Digest of Welsh Historical Statistics : Population,
1570-1974**

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PREFACE

In the last couple of decades Welsh historical studies have flourished. The present volume is not offered as part of that very welcome development: it was rather conceived with the more modest aim of providing a service for those working on the history of modern Wales. It arose from a belief that the quantitative element is a necessary and important part of the historical record; from an awareness that it was an aspect that was particularly inaccessible for scholars of Welsh history; and from a conviction that some encouragement in the use of quantitative material was necessary.

It was fortunate that my then colleagues in the Department of Economics at U.C.W. Aberystwyth sufficiently shared my views as to allow me research assistance. I am most grateful to them and also to the Social Science Research Council (as it then was) for funding a research officer. These two institutions generously provided the crucial opportunities.

None the less the vigour with which these opportunities were exploited depended entirely on how effectively the researchers used the couple of years to which funding was limited. In this report I was exceptionally lucky. The two young researchers, Rosemary Oakley (as she then was) and Trevor Boyns, did far more than could reasonably have been asked for them. They were terrier-like in their pursuit of material, meticulously painstaking in its arrangement, careful in indicating its limitations, ingenious in suggesting improvisation, and were enjoyable and stimulating colleagues. Such virtues as the work possesses derives mostly from their efforts and I am conscious that much has been lost because of the necessity to reduce, merge or manipulate much of what they had done.

For a variety of reasons this work has taken a somewhat tortuous path towards publication. It is thus with especial gratitude that I acknowledge the assistance of the Welsh Office in enormously facilitating the final stages. If, as is hoped, the work will be of some use to scholars its appearance owes much to the Welsh Office and to the enthusiastic assistance and support given by Ed Swires-Hennessy, their survey statistician. I am grateful, too, to John Rhys of the University of Wales Press for his ready acceptance of this arrangement. If the standard of accuracy fails to reach the normal high standards of Welsh Office statistical publications the responsibility is entirely mine; as is the fault for any shortfall from the normal production standards, the copy not having been originally prepared for this form of publication.

Certainly none of the responsibility for any shortcomings would rest with those who have executed a difficult and tedious typing job with remarkable accuracy and cheerfulness. Rosemary Law, Susan Cadman and Pam Davies bore the brunt of this and, in particular, Rosemary Law gave freely of her time and skill in the final substantial task of correcting and adapting the typescript for a different mode of publication. Similarly, Dot Jones has, over a considerable period of time, sunk a great deal of effort into the enterprise not least in the demanding task of checking and preparing the typescript for publication.

GENERAL INTRODUCTION

The task of compiling a set of historical statistics for Wales was one which was undertaken with the greatest reluctance. It was attempted because of the continuous personal frustration induced by lengthy searches for quite basic statistical information. It was attempted because this seemed a general experience amongst those working in Welsh history. It was attempted because the preferred solution to the problem (i.e. that someone else should undertake the task) remained as remote as ever. The reluctance was reinforced by an acute appreciation of the difficulties involved and of being inadequately qualified for the task. Misgivings on these last two counts have mostly been confirmed.

The obvious model for a work of this kind is provided by the two volumes devoted to British historical statistics. (1) The general outline follows the same pattern as the British volumes. Each section has a brief introduction which is intended to provide some explanatory remarks, not on the general subject of the section, but on the particular statistical series which has been provided. These comments will not be, and are not intended to be very helpful to those who are already expert in the given area, but it is hoped that non-specialists will be able to gain some idea of the nature of the sources upon which the tables are based, obtain an indication of the reliability of the figures, and -perhaps most important- be warned about their limitations. Each section also has a short bibliography, which is largely confined to listing those works which have been of direct use in compiling the tables and/or contain comment upon statistical material. No attempt has been made to provide a bibliography of the numerous more general works which have been consulted: interested readers are referred to the second edition of the Bibliography of the History of Wales published by the University of Wales Press in 1962 and its later supplements.

In some respects substantial effort has been expended in an attempt to follow the model provided by the volumes on British historical statistics as exactly as possible. Naturally it would be pleasing to reach the same standards of accuracy and clarity but, more operationally, the aim was to facilitate comparisons between the figures relating to Britain. The limitations of the material, however, often frustrated such attempts but, beyond this, there are other substantial departures from the model provided by the British volumes. It might help potential users to offer some brief comments on these departures, some of which have been deliberate and some have been more or less involuntary.

The deliberate deviations are of three main kinds. In the first place, a greater attention has been given to statistics of a non-economic, or less explicitly economic nature. This is justified, if justification is needed, by the growth of the new social history and its readiness to use quantitative material and techniques; and by the extent to which economic historians and economist have increasingly recognised that most questions cannot be satisfactorily resolved simply on the basis of a small number of exclusively economic variables. Such recognition has naturally been strongest in the case of relatively long-run issues, where the assumption that 'other things remain equal' becomes increasingly questionable: but part of the justification for a volume such as the present lies precisely in the assistance it can give in tackling issues of relatively long-run nature. In the second place, more detail has sometimes been given than was contained in the British volumes. Thus, for example, a

greater range of statistical information is included on the coal industry, because of its peculiar importance for Wales. Conversely, much less information (or none at all) is included for sectors of industries (like cotton manufacture) which were unimportant or non-existent in Wales. And thirdly, substantially more information has been included on a local, and especially a county, basis. For many issues the aggregate figures for Wales, whilst communications have tended to run east-west, rather than north-south, making Wales less integrated as a national unit. It is hoped that a greater inclusion of information on a county basis will offer investigators more flexibility in using the material.

The involuntary deviations from the British model are more numerous and regrettable. Mostly they arise from the, till recently, deeply-entrenched tendency for administrators (and others) to lump Wales in with England. Scotland and Ireland are usually separately designated but the historical investigator for Wales is perpetually balked by the irritating phenomenon of 'England and Wales'. In some cases it has been possible to separate out the figures for Wales. It would be possible in many other cases to make reasonable estimates for Wales: but, in general, such calculations have not been presented here because of the intention to confine attention, apart from a few indices, to making available raw data. In other cases, the problems seem insurmountable. Thus, any reasonable approximation for the total external trade of Wales seems beyond our reach: the bulk of such trade -imports and exports- was with England and is unrecorded. Other areas are not beyond reach, but would demand a degree of fundamental research which was impossible to undertake with the time and resources available. There is a great deal of empirical evidence concerning prices in Wales. It appears as incidental material in government and other official records and reports, it recurs in a wide variety of farm, business and household accounts and manuscripts; and it appears in a wide range of local newspapers and secondary writings. But it is scattered, patchy, sporadic and unsystematic: substantial and sustained research would be needed to collect and organise it into meaningful economic trends. There is thus no separate section on prices in the present volume, but wherever a reasonably consistent series was available for a particular sector (for coal, for example, and some farm products) it has been included with the other material for that sector. A similar situation exists for wages but it was judged that, despite the gaps and shortcomings, enough usable material existed to justify a separate section (Section 3) especially since good figures exist on the topic for recent years.

The reference to recent years prompts comment upon a number of more general limitations to the present work. The starting date for some of the basic demographic tables is at the beginning of the nineteenth century and a few isolated tables, for example dealing with iron and coal, lap back into the eighteenth century. But in most areas reasonably consistent and continuous series for Wales can only be obtained from around the middle of the nineteenth century at the earliest. Often the starting-point is much later since the figures are frequently a by-product of two late-flowering processes: the extension of government activity into new areas of social interest, and the pursuit of active regional policies. At the other end of the chronological scale the cut-off date has normally been made around 1974. This marked the re-organization of local government in Wales and it would have been impossible, as well as being historically meaningless, to have converted all the earlier data to coincide with the radically different administrative basis. A related problem

concerns the decimilisation of money. Apart from some marginal readjustments in the years immediately around the change-over in 1971, the figures have normally been left as they were originally expressed.

Another significant limitation is that there are occasional gaps and omissions in the tables. For example, table 8 in the section on education gives information on school leavers but there are gaps for 1923 and 1924 because the volume relating for Wales was not published in those years and the department was unable to provide the figures or to give information from which they could be calculated. A number of such gaps have been filled often with the help of the appropriate government department, and most of the remaining gaps of this kind are irritating rather than serious. That they are more or less unavoidable if Wales is the unit arises from the fact, already mentioned, that in some cases the total for Wales can only be obtained by extracting and aggregating more detailed figures; and if the details are not available for any particular year no total can be provided. It is this aspect which largely accounts for the two more serious periods of omission covering the two world wars. Very little was published on a county or regional basis during these periods, and the level of detail required it seems that much of the necessary information was either not collected at all or has not been retained.

A more general point concerns the kind of statistics which have been on the collection of 'raw' statistics. In general, therefore, the aim has been to avoid processing or manipulating the basic data in order to construct indices of various kinds or to convert the collected figures into indicators of concepts (like national income) for which no consciously-constructed contemporary figures exist. Of course, it is not meant to imply by this that each statistic given existed in exactly that form in the original document or report from which it was constructed. On the contrary, one of the persistent obstacles to be overcome was that there was no figure for Wales directly available. In many cases such a figure was only reached by summing up figures which could be obtained for, say, each Welsh county, or -to cite a particularly tricky case- each Welsh railway (raising the ultimately unanswerable question of 'What is a Welsh railway?'). Where any substantial aggregation of this sort has been undertaken it has been noted in the introduction to the particular section since it obviously involves an additional source of possible error. But the general point remains: the statistics have not normally been processed in a way which would alter their original form. It was felt that the over-riding priority was to present the basic figures: partly, indeed, to provide material but part of the motivation for, and justification of, such enterprises was precisely to aid -and perhaps even encourage those who wish to process the statistics, and adapt them so that a wider range of social and economic concepts can be brought to bear upon Welsh history.

Notes

1. Mitchell, B. R. and Deane, P., *Abstract of British Historical Statistics*, 1962; and Mitchell, B. R. and Jones, H. G., *Second Abstract of British Historical Statistics*, 1971.

Chapter 1. Population. Introduction.

The obvious starting point for any collection of historical statistics is with the basic demographic material. In this respect, reasonable reliability essentially dates from the taking of the first census in 1801. (1) Fortunately, it is possible to secure from the outset separate figures for Wales on the fundamental issue of the size of the total population and its breakdown by sex. Table 1 presents this information and is preceded by some estimates of the population for earlier years made by John Rickman, who directed the first three censuses. Rickman's estimates depend on some strong and arbitrary assumptions: the wide differences in the estimates thus produced mainly serve to underline the problem involved. The table includes the same information on the total population (by sex) for each county. In the same way, Table 2 which gives the proportion of females to males at each decennial census, does so for Wales and each of the counties.

The inclusion of fuller information on a county basis requires some care in interpretation as the definition of 'county' tended to shift from time to time. (2) Up to 1891 the county figures refer either to Ancient counties or to Registration counties or, most usually, to Administrative counties. In Wales the division into ancient counties began with the formation of Pembroke as a County Palatine in 1138 and was largely completed by Henry VIII. Some small changes were made under an Act of 1844. The registration counties originated with the civil war registration of births, marriages and deaths in 1837. In general registration *districts* were formed out of Poor Law unions, which themselves had been formed by grouping together registration districts and the resulting areas did not always coincide exactly with the ancient counties. Administrative counties were formed as a result of the Local Government Acts of 1888 and 1894. In Wales the administrative counties largely coincided with the ancient counties: but both differed sharply from the registration counties. The differences and some indication of their significance are indicated in Tables 4 to 6. From 1841, it is possible to present a break-down of the population of Wales by age, and in Table 3 this has been combined, from 1851, with a break-down by marital status.

The early censuses attempted to obtain information on births, marriages and deaths by asking clergymen to compile figures from their parish registers. The 1801 census attempted to secure this information for the preceding century by calling for information on baptisms and burials for every tenth year up to 1780 and annually thereafter, and for the number of marriages for each year from 1754. There are many deficiencies in the results. In many cases the parish registers were missing or had serious gaps: some clergymen failed to make returns; and others doubtless made errors in doing so, especially perhaps in Wales where the quality of the Anglican clergy was not high. Some of these difficulties were less acute for material collected in later censuses covering c.1800 to 1840, but throughout it is impossible to know just what proportion of the total population was represented in the parish registers. How many deaths were registered as Anglican burials, and how many births were registered in the church, and did these proportions change over time? In these respects some of the conditions in Wales (language, extent of Nonconformity) make it unlikely that estimates made of these variables for England (3) can simply be transferred to Wales. There are many pitfalls, therefore, but Table 7 does present a basic part of the evidence for any studies on Welsh population in the eighteenth century, a subject on which surprisingly little work has been done.

The introduction of the civil registration of births, marriages and deaths in 1837 substantially improved knowledge in these areas. The improvement was, however, spread over time as registration gradually became more comprehensive in its coverage and more accurate in the information provided. However, the shortcomings, and hence the improvements, were particularly marked in the earliest years and thereafter present no serious general problems. There are problems more specific to Wales. In particular, the registrar's general reports do not give separate estimates for Wales of the mid-year population before 1878. Thus relating the figures of births, marriages and deaths to total population for each year in the earlier period requires a prior calculation of the population in the inter-censal years. This calculation has been made for the years between 1841 and 1878 and included in Table 8. (4) The basis for the calculation is the assumption of a constant rate of growth of population for the inter-censal years. Thus, the growth between the census years has been allocated to each year by using an annual compound rate which sums up to the decadal rate. Such procedures obviously do not give a precise indication of the actual mid-year population (nor, of course, do the later official estimates of the Registrar-General). Any errors will clearly affect the accuracy of the death, birth and marriage rates shown in Tables 10, 11 and 12, which are based upon the estimates of annual population. It is, however, not thought that such errors will be significant especially as the main determinant of the rates for deaths, births and marriages rather than the (proportionately small) errors in the estimation of the total population. And fortunately, the actual number of deaths, births and marriages has been directly obtained and, with time, became increasingly more reliable. A further small source of errors rises from the differences in the areas covered. Thus figures based on the census relate to administrative Wales whilst the figures on the number of births and deaths relate, until 1910, to the Welsh Registration Division or to the sum of the registration counties, and the number of marriages remains based on that area until 1938. There are, as Tables 4 - 6 indicate, small differences between these areas and that used for the overall population figures for Wales.

Table 13 gives information on the population of towns in Wales since 1801. It needs to be interpreted with much caution. What constitutes the 'proper' area of a town at any particular time is not an easy question to determine and it is certain that it would be impossible always to obtain the information on population for such an area. The figures in the table relate solely to the administrative area, but they do include the changes, both geographical and verbal, in that concept. It is hoped that the approach allows some flexibility (not making the area of each town conform exactly with the area as it was on one particular date) whilst the needs of consistency for comparison is met by attempting to include figures on both the old and new basis at the time of any change in the administrative area. For the early censuses there are particular difficulties over giving the population of towns. Only a few places are so designated in the census and places which later featured as towns often did not have the same boundaries as the parishes by which they had been earlier designated. In addition to uncertainties about boundary changes, it is known that at least the first three censuses underestimated the true size of the population but the population figures for towns and parishes, unlike those for counties, were not revised later except in the cases of Swansea and Merthyr - the major towns in Wales at the time.

Tables 14 and 15 bring together some information on two broad aspects of migration. It is not possible, over any length of time, to get figures of the total numbers moving into and out of Wales (and each county). Table 14, however, attempts to indicate the net size of such population movements and also expresses them as a percentage of the total population to indicate changes in the relative magnitudes over time and between counties. It needs to be emphasized that the migration figures are obtained as a residual (by subtracting the figures for natural increase from the total intercensal change); as such they liable to an additional margin of error. No full and continuous series has been found for the number of Welsh people migrating overseas. Occasional scattered figures of variable quality have been collected but it was felt that only the number of Welsh people in the United States provided a sufficiently consistent and continuous series to be worth reproducing. Fortunately, for the half-century or so before the First World War there are good reasons (5) for believing that the scale of migration from Wales was relatively modest.

Finally, there are three tables relating to language. All these go back to 1891 when, for the first time, the census in Wales included a question on ability to speak Welsh. As often happens when a new topic is introduced into a census, the first result was not fully satisfactory. In particular the census authorities judged that, because the wording led to some misunderstanding, the response overstated the number of monoglot Welsh-speakers. Comparisons between the 1891 figures of monoglot Welsh-speakers and those for later censuses thus demands care -for this and other reasons given in the footnotes to Table 16. These cautionary words also apply to the other two tables dealing with language. Table 17 converts the absolute numbers into percentages and, like the preceding table, gives the information for each county and county borough. The variations within Wales on this topic are so marked and so significant as to make such a breakdown imperative. The final language table looks at the age-distribution of Welsh-speakers over this period of eighty years.

Notes

1) It should be noted, however, that there is general agreement that the censuses of 1801 and, to a lesser extent, 1811 left out a significant part of the population. There is no way of knowing just how many were not counted but it seems likely that at least 5 percent in 1801 and 3 percent in 1811 could be taken as reasonable indicators. A. J. Taylor, 'The Taking of the Census, 1801-1951', *British Medical Journal*, 1951; J. T. Krause, 'Changes in English Fertility and Mortality, 1781-1850', *EHR*, XI, 1958. No attempt has been made to correct the figures given in the actual census except in so far as any particular figure was revised by a later census.

2) In addition, of course, the inaccuracies inherent in the taking of a census increase as the area considered becomes smaller in size. M. Drake, 'The Census 1801-1891' in E. A. Wrigley (ed.) *Nineteenth Century Society*, and P. M. Tillot, 'Sources of Inaccuracy in the 1851 and 1861 Census' in *Ibid.*

3) See, e.g., J. T. Krause, *loc. cit.*

4) Similar information for each county can only be obtained from 1903 and is given in table 9.

5) These have been well-analysed by Bringly Thomas, 'Wales and the Atlantic Economy', *Scottish Journal of Political Economy*, November 1959 and re-printed in B. Thomas (ed.) *The Welsh Economy*, Cardiff, 1962.

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