

Sample study two

Title: A study of census material to investigate the population structure of Dunlavin, Co. Wicklow in the late nineteenth century.

Outline Plan:

This research study will examine late nineteenth century changes in population structure at local level. Local history is becoming ever more important and more popular, and is contributing significantly to our knowledge of national history. This study will use primary source material from three censuses – 1881, 1891 and 1901 – and will construct three population pyramids from that data. This study centres on Dunlavin, Co Wicklow, and the district electoral division (D.E.D.) is taken as a more manageable unit than the parish, which is very large. Changes in population in the Dunlavin area will be investigated. The research study includes population pyramids to show the census information in graphic form and will add to the body of historical knowledge about Dunlavin in the late nineteenth century.

Evaluation of sources:

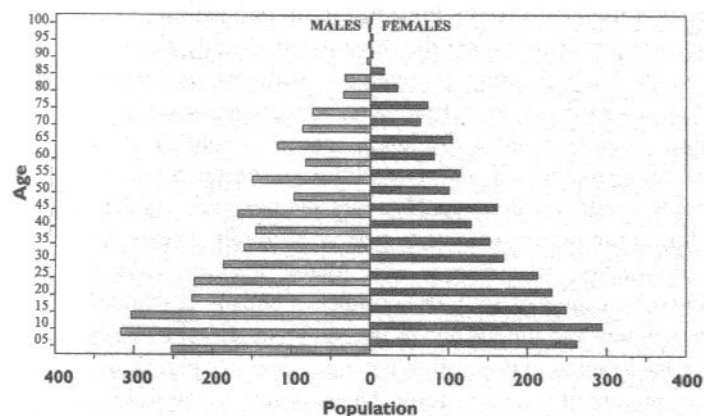
The principal sources used for this study were the Censuses of 1881, 1891 and 1901. All of these censuses are available on microfiche in the National Archive of Ireland in Bishop St., Dublin. They have the advantage of dating from the time in question and are primary sources. They are very accurate. The main disadvantage of the censuses as a source is that they contain nearly too much information, and the research study will only concentrate on the information regarding population. One of the skills that this study has taught me is how to decide what is relevant and discard what is not.

Extended Essay:

This research study applies the geographer's tool, the population pyramid, to examine the population structure of a local area in the past. The locality at the centre of this study is the village of Dunlavin, in the west of County Wicklow. The information given in this study is all taken from the census figures of 1881, 1891 and 1901 respectively. Population pyramids provide a method of studying the age and sex structure of any population in a given place at a given time. The pyramids are divided into males and females and are subdivided into five-year age groupings on each side.

Figure 1 shows the population pyramid for Dunlavin district electoral division (D.E.D.) in 1881. The total population of the D.E.D. in 1881 was 5,114. This was made up of 2,661 males and 2,453 females. Given that females nowadays tend to outlive males, these totals may indicate a higher rate of female mortality in 1881 than is the case these days. One possible reason for this would be that larger families were the norm in 1881. One would expect a higher rate of female deaths in childbirth in 1881 than would be the case today.

Figure 1. Dunlavin D.E.D. population pyramid 1881.



Another very obvious fact that leaps to the eye from a glance at the pyramid is the sharp drop in birth rate. This was a very recent drop in 1881; indeed the 5 – 10 age group is the largest single group in the whole pyramid for both males and females (316 and 294 respectively). The under-five figures are significantly less for both sexes (252 and 263 respectively). This would indicate that the drop in birth rate occurred in the late 1870s. Economically, these were bad years and the fall in agricultural prices, which had begun about 1876, had been accompanied by several bad harvests.

In the late 1870s, Dunlavin D.E.D. experienced an economic downturn and this led to the 15.6% drop in the birth rate seen in the 1881 population pyramid. There may have been other factors (emigration, later age of marriage and childbirth etc.), but there is no doubt that economic factors do influence the birth rate, especially at a time when many people remembered the Great Famine.

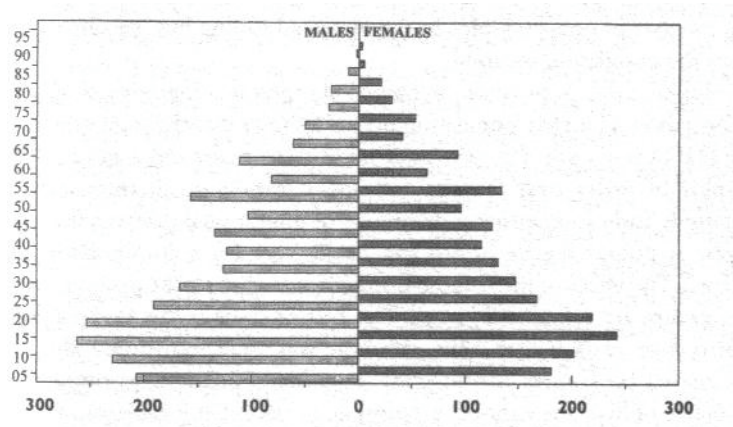
Mention of famine leads us on to some other characteristics of this population pyramid. The 35-40 age grouping appears quite small on this pyramid (for both sexes) wedged as it is between the larger 30-35 and 40-45 groupings. Thirty five years before 1881, the year was 1846. The Great Famine of 1845-1850 decimated the birth rates nationwide, but this population pyramid provides evidence of how a national event – indeed a national catastrophe – impacted at local level in Dunlavin D.E.D. Indeed, the columns in the 30-35 age group are not much bigger than the 35-40 age group, indicating that the low birth rate in the D.E.D. continued through the famine years and up to 1851. Of course, other factors like emigration and non-famine related deaths must also be taken into account, but the famine was the major cause of

the small numbers of both males and females appearing in both the 30-35 and the 35-40 age groupings on this 1881 pyramid.

The age groups above 65 years show a constantly diminishing trend as one moves upwards in age, but natural deaths would account for such a trend, particularly given the fact that life expectancy was lower in nineteenth century Ireland than it is nowadays. However, the pyramid clearly shows that the bulk of the population of Dunlavin D.E.D. in 1881 was quite young, with 42% of the total population in the 20 or less age group. Another use of the population pyramid by the geographer entails using the pyramid as an indicator of the population's social and economic development. The older and younger age groups (<15 and >65) are generally economically unproductive and must be supported by the middle group, which includes the wealth producing labour force. This 1881 population pyramid for Dunlavin D.E.D. shows a productive sector of 59% supporting a non-productive sector of 41%. The non-productive sector was quite large, and the presence of the two largest groups in the non-productive sector (5-10 and 10-15 age heapings) increased the economic strain on the community.

Figure 2 shows the population pyramid for Dunlavin D.E.D. in 1891. The first fact evident from a study of this pyramid is that the overall population has dropped from 5,114 in 1881 to 4,394 in 1891. This represents a 14% drop in the ten-year period between the censuses. This represents a mean decline of 1.4% per annum. The rate of decline was higher on the female side (15.6%) than the male side (12.8%), but this need not indicate increased female emigration, as there are less females than males in both the 0-5 and 5-10 age heapings (181 to 207 and 202 to 229 respectively).

Figure 2. Dunlavin D.E.D. population pyramid 1891.



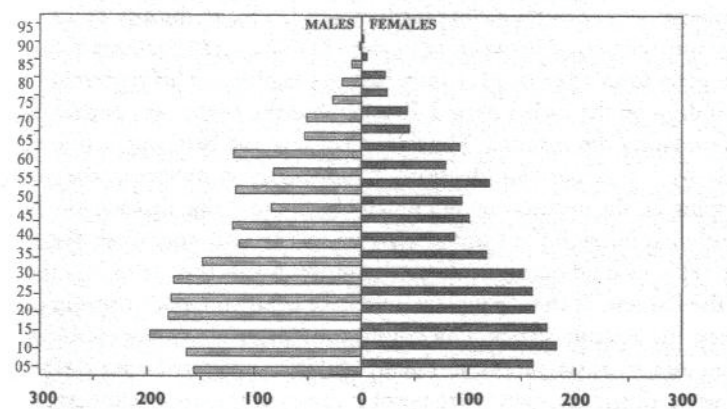
The lower birth rates have continued through the 1880s. In fact, this population pyramid is a classic example of what geographers refer to as a ‘regressive age structure’. It shows low birth and death rates, reflected in its beehive shape. The narrow base indicates the low birth rates and the low mortality rate is shown by steep sides until the over 65 age group is reached. At this point the pyramid tapers sharply, illustrating the increase of the death rate through ageing. In fact this regressive age structure is compatible with what geographers refer to as “stage three” of the demographic transition model, which indicates that although the overall population of the D.E.D. fell between 1881 and 1891, the economic situation improved during that time. Lower numbers in the D.E.D. meant that the available wealth was better distributed, and the family size at this point was falling, hence the lower birth rate.

Another indication of better times economically in the D.E.D. in 1891 is to be found in the fact that the productive sector of the population (15-65 year olds) has now crept above the 60% mark and stands at 62% supporting a non-productive sector of 38%. While the 1891 situation does not represent a great increase in the productive sector, there was still an increase, and so the overall economic situation improved between

1881 and 1891. Despite the lower birth rate, the 1891 population pyramid for Dunlavin D.E.D. is still weighted heavily in favour of the young, with 41% of the total population falling into the age heapings below 20. This represents only a 1% decrease on the 1881 situation, but obviously the 10-20 groups are a lot larger than the 0-10 groups and it would probably take some more years of lower birth rates to have an impact on the lowering of the overall percentage made up by the under 20s.

Figure 3 shows the population pyramid for Dunlavin D.E.D. in 1901. Once again the total population has declined – from 4,394 in 1891 to 3,815 in 1901, representing a 13% drop in population. While this 13% drop is only 1% less than the 14% decrease recorded between 1881 and 1891, it is significant that the rate of decline was slightly less in the 1890s and represents a further stabilisation of the economic situation in Dunlavin D.E.D. during this period. Once again the pyramid is a regressive one with continuing lower birth rates in evidence. The fact that the 20-30 groupings do not significantly outnumber the 10-20 age bracket (as the 10-20 age heapings significantly outnumbered the 0-10 age heapings ten years before) indicates continued large scale out-migration of both sexes in search of work.

Figure 3. Dunlavin D.E.D. population pyramid 1901.



This 1901 population pyramid is more stable than the other two, and the percentage of people under 20 years of age has now dropped to 36%. This figure represents a 5% drop on the 1891 percentage and it is obvious that the continued lowering of the birth rate is having an effect on the age structure of the population. Indeed, this continuing drop in the birth rate is also responsible for the fact that this 1901 pyramid shows that a 65% productive sector is now supporting a 35% non-productive sector. Once again this figure is an improvement on both the 1881 and 1891 figures for the non-productive sector (41% and 38% respectively). The whole shape of the 1901 pyramid (more rectangular in the lower age heapings especially) indicates a much healthier economic situation. The population has stabilised, as has the rate of population and economic decline. However, the price of the increased prosperity for the people who resided in Dunlavin D.E.D. in 1901 was continuing emigration (especially shown in the 20-30 age groups in this pyramid as noted already), leaving those who remained behind a bit wealthier overall – or at least on average.

This research study has used primary source data from three censuses to construct population pyramids for Dunlavin D.E.D. in 1881, 1891 and 1901. The study has investigated population totals, birth rates and other economic indicators. The years between 1881 and 1901 saw great economic changes. These economic changes were both causes and consequences of the actual population decline, and they ensured that the population pyramid for Dunlavin D.E.D in 1901 had a much more developed look to it than the 1881 pyramid.

Sources:

1. Census of Ireland 1881, County Wicklow, table xiii, p. 1152.
2. Census of Ireland 1891, County Wicklow, table xiii, p. 1127.
3. Census of Ireland 1901, County Wicklow, table xv, p. 47.