

## **Using the Census as a learning resource for undergraduates on business and public sector course**

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### **Summary**

In this case study the use of the National Population Census as a means of integrating skill development with knowledge acquisition is explained and evaluated. Particular attention is given to the ward profile assignment which provides students with the opportunity of processing and applying Census data.

### **Biography**

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### **Keywords**

National Population Census; business environment; learning outcomes; learning and teaching strategy; assessment strategy; skill development

### **Introduction**

The National Population Census constitutes an invaluable learning resource since it provides students with opportunities for integrating skill development with knowledge acquisition. This applies as much to those on courses in business studies and public sector studies as it does to those pursuing qualifications in more self-evidently relevant areas such as geography and planning. To be able to access, process, interpret and present Census data, students need to know what data are available and something about the background to, construction and conduct of the Census and the administrative hierarchy on which it is based. Use of the Census also facilitates experiential learning, where success depends upon the application of a learning style characterised by what Kolb (1984) terms 'active experimentation' and 'abstract conceptualisation' and 'provides reality and authenticity' (Oakley and McDougall, 1997, p.91). Moreover, early exposure to the Census lays the foundation for later specialisation in areas such as marketing, equal opportunities and health care.

Thus, tutors responsible for a first year unit, Social and Demographic Environment (SDE) at Sheffield Hallam University (SHU), have incorporated the Census into their learning and teaching strategy. The 150 business and public sector students who take the unit each year are presented with a critical overview of the Census and are given opportunities for processing Census data relating to their 'home area' by means of a ward profile assignment.

### **Learning and teaching strategy**

Immediately they begin the unit, students are briefed on the ward profile, both verbally and in writing. This covers the tasks required and the learning outcomes that serve as the basis of assessment (see Table I).

Later students are introduced to key terms and concepts associated with the demographic environment and to the principal demographic trends (see Table II) by means of a lecture and specially prepared learning support materials.

Built into these materials are small-scale activities which involve:

- gathering basic demographic data, such as the number of live births and population for their home local authority area, from *Key Population and Vital Statistics*; and
- performing simple calculations, such as the crude birth rate for a number of local authority areas.

In this way, students:

- gain experience of locating and accessing demographic data;
- establish how their home local authority relates to higher and lower administrative levels (ie county and ward); and
- begin the process of building up a demographic profile of their home area.

The lecture, materials and activities prepare the ground for a two hour interactive session, attended by students in groups of about 20, where they:

- pool their findings and responses to the activities,
- carry out small (4 to 5) group exercise, designed to get them thinking about the significance of demographic data and trends for business and public sector organisations (eg supermarkets, hospitals, leisure centres and universities).

Students are then familiarised with the Census itself. Through the learning support materials they are introduced to:

- the key features of a National Population Census;
- the data collected in the 1991 UK Census; and
- Census outputs, both paper-based and electronic.

These are supplemented by a lecture covering:

- the uses to which Census data are put, including the preparation of profiles by local authorities, market research companies, primary care groups, churches and other organisations;
- geo-demographic schema for classifying areas, such as ACORN (ie A Classification Of Residential Neighbourhoods) produced by CACI Information Services (<http://www.caci.co.uk>);
- the strengths and shortcomings of the Census; and
- alternatives to the Census, such as a population register.

The two-hour group session takes the form of a workshop involving an information specialist and designed to support students in the early stages of the ward profile by:

- showing them how to access the CD-ROM version of the Census; and
- giving the opportunity to extract data from the relevant paper-based *Ward and Civil Parish Monitor* thereby enabling them to complete some introductory tables and to carry out some calculations (eg dependency ratios).

These tasks are linked to activities in the learning support materials, which require students to reflect upon their findings in the light of broader demographic trends, as well as simply process quantitative data.

Between the workshop and the deadline for the ward profile assignment students are encouraged to indicate their progress and highlight problems for consideration during class sessions.

## **Table I : The Ward profile assignment**

### **Tasks**

Locate the 1991 Census Ward and Civil and Parish Monitor for your 'home area' and/or the CD-ROM version of Census and use the source(s) to find and/or calculate the following:

- the total number of persons present in 1981 and 1991 and the change between these years;
- the age structure;
- the neontic, gerontic and combined dependency ratios;
- the ethnic composition;
- the composition of households;
- the pattern of housing occupancy; and
- indicators of economic well-being.

Compare your findings/calculations with those for another student's ward, noting any similarities or differences and relating them to broader demographic trends.

Consider the implications of your findings for both private enterprise and public services in the two wards.

Assess what you have learnt, in terms of skills and knowledge, from carrying out the assignment.

Present your work in the form of a document suitable for assessment purposes.

## **Learning outcomes**

Apply knowledge of social and demographic concepts and trends to business activities and public service provision.

Locate and utilise oral, paper based and electronic sources of information about the social and demographic environment.

Communicate effectively in writing.

Apply basic mathematical operations and statistical techniques to socio-demographic data.

Evaluate your own learning and performance and determine your development needs.

## **Table II : Aspects of the Demographic Environment**

### **Key terms and concepts**

birth rate and fertility

death rate and mortality

life expectancy

natural change

migration

neontic dependency ratio

gerontic dependency ratio

combined dependency ratio

### **Principal demographic trends**

ageing or 'greying' of the population

declining birth rate

increasing percentage of one-person households

increasing percentage of lone-parent households

decreasing percentage of large households (5 or more persons)

de-urbanisation

## Evaluation

The strengths of the ward profile include:

- the considerable amount of effort which many students put into its completion;
- the novelty and magnitude of the challenges involved as illustrated by comments in the personal learning section, such as 'I have never really done anything like this before' and 'it was a huge learning experience'; and
- the increase in knowledge and development of skills, including time management, that stem from the assignment.

Nonetheless, wrestling with the demands of the assignment does give rise to fears and anxieties, such as:

- the concern of some students that they do not know what a ward profile (unlike an essay) 'looks like';
- resentment that more time and effort has to be expended on the ward profile than would be the case with a traditional essay.

In response to these concerns guidance on presentation is now placed on the unit website noticeboard ([http://www.shu.ac.uk/virtual\\_campus/courses/008/sde/index.html](http://www.shu.ac.uk/virtual_campus/courses/008/sde/index.html)) and one part of the examination paper consists of a question based on the ward profile (see website for an example).

For tutors, the principal benefits of the ward profile are that it gives rise to interesting discussions with students and facilitates collaboration with information specialists. There are, however, a number of challenges, such as:

- ensuring that the ward profile does not absorb a disproportionate amount of time at the expense of other aspects of the curriculum;
- getting the balance right between tutor guidance and student autonomy;
- securing equity in the marking of the profiles;
- keeping abreast of developments in the availability of up-to-date demographic data via the Web (eg <http://www.statistics.gov.uk/neighbourhood/home.asp>);
- finding ways of integrating the Census with other components of the student learning experience;
- ensuring that students develop their critical faculties through exploration of some of the values and assumptions that underlie the Census; and
- finding time for staff development.

## Conclusion

For students and tutors alike the use of the Census on business and public courses can be an enriching learning experience. Although challenging it is well worth the effort, and experience at SHU should serve to encourage others to experiment in this area, especially with the 2001 Census receiving considerable publicity (<http://www.statistics.gov.uk/nsbase/census2001/default.asp>).

## References

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