

Chapter IV

Census and Population Analysis

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ABSTRACT

This chapter presents the development of a series of shared learning materials prepared to facilitate teaching in human geography. The principal focus of this work has been on how to use census data to understand socio-demographic phenomena such as ethnic segregation or neighborhood profiles. In this area, students are required to address a combination of substantive and methodological issues that are particularly well suited to blended learning. Much of the information describing population characteristics is itself published online and it is therefore necessary to engage with external online data resources in order to obtain and analyze information for specific study areas. Our teaching exemplars include those designed to develop students' understanding of the data collection process, for example through the use of an online census questionnaire; analysis methods, through the provision of visualization tools to show demographic trends through time; and substantive examples, by comparison between urban social geographies in the USA and UK. Particular challenges are presented by the different nature (format, content, detail) and licensing arrangements for the census data available for student use in the UK and USA. In the UK students and researchers access census data via a research council funded program of data support units, which provides access to data from four successive censuses. In the USA open access to extensive data holdings is provided by the national statistical agency, the U.S. Census Bureau. However, the UK National Statistics offices are providing an ever-larger portfolio of datasets online and available to all, facilitating international collaboration and the types of data being provided are developing rapidly to fill the gaps between censuses.

INTRODUCTION

This chapter deals with the theme of the Dialog-PLUS project concerned with teaching in human geography. Our aim is to describe the ways in which e-learning have been used in a variety of geography degree programs across three universities. This will provide readers with examples of how the e-learning materials were used in specific courses, which may help them in using similar approaches and of the issues that were faced in incorporating these new materials. Table 1 shows the relationship of the courses the authors have delivered to the sections of the chapter in which different aspects are discussed. The courses range from first year modules taught to 150 undergraduate students to master’s modules taught to five distance learning students. We hope that readers will find the chapter useful on several levels: as a guide to the range of ways in which to introduce

e-learning materials into a human geography course, as a guide to recent UK and U.S. census data and their utility in thematic courses in human geography, and as an inspiration to students to explore the wealth of electronic information now available on our human world.

The exemplar material incorporated into the courses that is discussed in this chapter largely derives from the periodic censuses of population. These statistical instruments deliver vital population and housing information on small geographic areas. Census datasets were the first to be comprehensively made available online in the UK and USA. However, one major drawback of the census is its infrequency, as it is administered every ten or five years. Hence the currency of outputs declines over time for up to ten years. This data gap has been filled by use of vital statistics (on births and deaths) and of migration statistics (still poorly developed at small area scale) and

Table 1. Summary of the courses described in this chapter

Program Level	Module topic (University)	Activities delivered by e-learning	Chapter sections
Undergraduate			
Level 1 (campus module)	Geography of the UK (Leeds)	A practical on using the Online Census Atlas; a practical using the 2001 Census Output Area Classification and the current Neighbourhood Statistics web resources for England and Wales	Data exploration: an online census atlas
Level 3 (campus module)	Census and Neighborhood Analysis (Southampton)	All lecture materials online; practicals involve online and web based activities	Data collection: an online census form Data analysis: geodemographic and multivariate indicator demonstrators Engaging with real places: using students’ own neighborhoods
Masters			
Module (campus module)	Spatial demography (Penn State)	Online materials on spatial analysis of population groups	Data analysis: demographic modelling
Module (campus module)	Census Analysis and Geographical Information Systems (Leeds)	All module materials including practicals are available online. Combined with lectures and individual consultations	Using census data to explore ethnic segregation: comparing US and UK cities
Module (distance module)	Census Analysis and Geographical Information Systems (Leeds)	All units of module delivered online with intensive electronic communication and planned telephone tutorials	Using census data to explore ethnic segregation: comparing US and UK cities

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