# Chapter XIX E-Census 2006 in New Zealand

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# INTRODUCTION

A census is an official count. It can be contrasted with sampling in which information is only obtained from a subset of a population. As such, it is a method used for accumulating statistical data, and it is also vital to democracy (voting). Census data is also commonly used for research, business marketing, and planning purposes. In New Zealand a census is held every five years. It is a snapshot on the chosen day when the number of people and dwellings (houses, flats, apartments) counted. Everyone in the country on that day is asked to complete census forms. There are two census forms. The blue individual form must be completed by everyone in your household on census day. The brown dwelling form must be completed by one person in your household. For the 2006 census an option was introduced to complete the forms on the Internet. Other initiatives included sending text messages about this process, amongst other things to the enumerators (collectors) whose job it is to collate the information in the field.

Information technology, especially the Internet, opens possibilities of using methods to distribute information and deliver services on a much grander scale (Paynter & Fung, 2006). It can deliver government services and encourage greater democracy and engagement from citizens. Governments around the world are exploring the use of Web-based information technology (Grönlund, 2002).

Since the mid-1990s governments have been tapping the potential of the Internet to improve governance and service provision. "In 2001, it was estimated that globally there were well over 50,000 official government Web sites with more coming online daily. In 1996, less than 50 official government homepages could be found on the World Wide Web." (Ronaghan, 2002).

Along with the rapid growth of technological developments, people demand high quality services that reflect their lifestyles and are accessible after normal office hours from home or work. Thus, the goals of delivering electronic government services are to simplify procedures and documentation; eliminate interactions that fail to

yield outcomes; extend contact opportunities (i.e., access) beyond office hours and improve relationships with the public (Grönlund, 2002).

#### BACKGROUND

Census-taking began in China and the Middle East. One of the earliest recorded censuses took place in the Babylonian Empire nearly 6,000 years ago. Early censuses are mentioned widely in early Middle Eastern literature, with references to them in a number of places in the Bible.

Censuses of population were first taken in England and Scotland in March 1801, Ireland in 1811 and Australia in 1828. In the USA the census is undertaken every 10 years. The US Census 2000 project spanned 13 years at a cost of \$65 billion (Gido & Clements, 2006 p147). It is largely based on mailbacks with census employees personally visiting non-respondents. The first New Zealand census was undertaken in 1851, although this census excluded Māori (Statistics New Zealand, 2006a).

In New Zealand several acts of parliament have formed the legal basis for the collection of statistical data and census taking that has developed over the years. The most recent of which is the Statistics Act 1975. It clarified that the information contained in returns is to be used for statistical purposes only. It also specified which particulars it is mandatory to collect in the census and which particulars are able to be collected if the government statistician considers it in the public interest to do so. It also guaranteed the census to be free of government influence.

#### THE USE OF TECHNOLOGY

The 1921 census marked the first occasion on which automatic sorting and counting machines were employed in New Zealand, enabling the major portion of census compilation to be carried out mechanically. The system installed for this census was purchased from the United States, which had been employing mechanical tabulation for census work since 1870.

For the 1966 census, sorting machines were replaced by computers. Statistical tables were also produced by computer for the first time and results became available much earlier with a large number of additional cross-classifications of the census data being possible. The use of punch cards for each individual and dwelling was continued until 1976 when an automatic, electronically-based system was introduced. Mechanical tabulation has been replaced by electronic data capture and handling as the speed and capacity of computing technology has improved.

In 1996, the scanning and imaging of census forms was introduced, further demonstrating that Statistics New Zealand was now fully immersed in the era of information technology, with analytical tools and information at a level incomprehensible to the department of earlier years.

## **ENUMERATION**

In the 2001 census, though, the process of distributing and collecting forms (enumeration) had hardly been changed. Enumerators within each district would hand deliver forms to each household (one dwelling form and one individual form for each person expected to be present on census night). Each form would be coded with an identifier made up of district, sub-district, meshblock and dwelling (the individual forms had Person ID added on collection). This ID was recorded in a field book along with any comments including the address and best pick-up time. After census night the households would be visited again to collect the completed forms. Up to three visits would be made in each of the delivery and collection phases. On the third unsuccessful visit prior to census night a default number of forms (one dwelling, three individual) would be left. After census night, an envelope would be left on the third unsuccessful collection visit. At the end of the enumeration phase the district supervisors would send follow up letters or visit non-respondents. Once district offices were closed five weeks after the census. the central census office would follow up nonrespondents.

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