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Demography of nineteenth century New Zealand education: gender and regional differences in school retention

A thesis submitted in fulfilment of the requirements for the degree of Master of Social Sciences in Demography

by

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Abstract

This thesis examines the progress of pupils through New Zealand schools in the last two decades of the nineteenth century and the first decade of the twentieth century. The purpose of this study was to apply demographic techniques to primary historical education data to enable the progress of pupils to be quantified and to allow comparisons to be made among different Education Districts and longitudinally over a period of some three decades.

The present work applies demographic methods using cohort and period analyses to overcome difficulties in direct comparisons of historical education data because of differences in population structure and differing examination pass rates in various Education Districts. This approach allows the determination of retention rates of pupils both by age and by level from Standard 4 to Standard 6 using primary data from the nineteenth century. In addition, gender differences in retention by age are analysed from the 1880s to the end of the first decade of the twentieth century. Previous published work considered school attendance only in general terms and usually on a national basis, but generally without analysing specific educational data on gender differences.

Studies prior to the present work have suggested that in the nineteenth century Education Districts differed in school enrolments (Hodder, 1996) and it is thus likely that there were differences in school retention of pupils between various Education Districts. Pilot research to the present work developed demographic methods for studying retention of pupil populations allowing for changes in the number and structure of the pupils populations over time (Hodder, 2005). These pilot methods are applied in the present research to study pupil retention in all thirteen Education Districts over the approximately 30 years from the 1880s. In addition to age and level

cohorts, gender differences are analysed. Direct comparisons among all Education Districts and over time are now possible.

This study has used a novel approach to the analysis of historical education data. The results enable comparisons to be made among all thirteen Education Districts and across several decades; such comparisons have not previously been possible and will facilitate future research on the possible factors affecting pupil retention particularly in relation to employment opportunities for school leavers and differences according to gender.

Hodder, C. (1996). *Cambridge District High School and its community, 1880 – 1888*. Unpublished Master of Arts thesis, Department of Education Studies, University of Waikato, Hamilton, New Zealand.

Hodder, C. (2005). Old data, new methods: the use of demographic methods to study historical education data. Unpublished Directed Study, Department of Societies and Cultures, University of Waikato, Hamilton, New Zealand.

Preface

Preface

Rationale, significance and limitations of this work

This work sets out to use a demographic methodology, developed in an earlier pilot study, and apply this methodology to historical education data which has not previously been analysed in a comprehensive fashion using any methodology. The application of a demographic methodology to such historical education data has, to my knowledge, never been attempted before, certainly not for New Zealand data.

The principal aim of this thesis was to analyse a complete set of data for all the thirteen Education Districts in New Zealand for the last two decades of the nineteenth century and the first decade of the twentieth century. The thesis set out to detect trends and patterns in pupil attendance and retention in the primary schools. Retention and attendance were considered in relation to age, gender and education level (Standard level). Restrictions on the size of the thesis prevented further detailed examination of these trends. It is envisaged that further research, based on the findings presented here, would allow the explanation of the trends in relation to broader issues such as employment patterns as well as changes in society, such as the rise in what has been termed the “cult of domesticity”, around the beginning of the twentieth century. Such research could not be carried out in this thesis because of the limits placed on the size of the thesis.

It is recognised that in some of the analyses, the results for the genders are reciprocal. For completeness and to assist future research, the graphs and tables for both males and females have been included, as this will allow other workers to interpret the data from this thesis without the need to recalculate data from the primary sources.

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Chapter 1

Introduction

Chapter 1 Introduction

Preliminary studies have shown that there are noticeable differences in schooling and school attendance behaviour in various Education Districts in New Zealand in the nineteenth century (Hodder, 1995). Such differences have not been reported or studied in detail and in a systematic way in the research literature. Rather, generalised statements have usually been made which refer mostly to schooling in the whole country and throughout much of the nineteenth century without being more specific as to location or time. Such general statements are frequently made without reference to raw data; for example, claims relating to an overall increase in the number of pupils attending school and Butchers' "river of education" thesis (Butchers, 1930, p. vii).

This thesis sets out to investigate in a systematic way some of the differences between the Education Districts in pupils attending government schools from 1880 until the end of the first decade of the twentieth century. In the research literature, regional variations in schooling and school attendance are only available in a piecemeal way with large parts of the country being unresearched. Some information is sometimes found in histories of individual schools (e.g., Cambridge Primary School – see Hodder, 1996) or in works dealing with regional administration such as Education Board histories (e.g., Cumming, 1959; Matthews, 1988).

In the published literature the histories of education in New Zealand fall into two main types: the traditional histories which focus on increasing school attendance and are linked to attendance legislation changes, and revisionist histories which maintain that school attendance was driven by employment and society and by credentialing rather than by attendance legislation which only followed what was already happening.

The literature on school attendance, particularly for the nineteenth century, is often contradictory and usually has few data to back claims. There are often sweeping generalisations and these are mostly for the whole nation although there are some exceptions. For example, McKenzie (1982) provides the reader with data and contains some regional comments. In addition, comments on gender differences, particularly relating to school attendance, are also often generalisations; again few data are offered

for consideration and such data as are given are often selective and conflicting. O'Neill (1992, p. 76) notes the "omission of considerations of gender from educational research" and Openshaw, Lee, & Lee (1993, p. 255) note that until recently "many New Zealand historians of education subordinated gender to their principal aim of describing the growth and progress of state education" and these authors point out the need for more researchers to become aware of the experiences of females in education (p. 266).

All previous published work, including those that analyse data, have used official returns from the Department of Education and published in the *Appendices to the Journals of the House of Representatives*. No published work has attempted to follow individual cohorts of pupils to determine changes in attendance for a cohort over time, to compare individual cohorts, and to compare regional differences for cohorts. The use of cohorts allows changes in attendance (for whatever reason) to be tracked longitudinally through the last two decades of the nineteenth century and the first decade of the twentieth century. It also allows some investigation of gender differences in school retention related to age. While this analysis is somewhat crude, it is the first attempt to study gender differences with age in various cohorts in a systematic way throughout all the Education Districts allowing direct comparisons. As McKenzie (1982, p. 9) notes, material from the data from the Department of Education has often remained "unread and criticised". The present work attempts to shed some light on these data.

Campbell (quoted by McKenzie, 1982, p. 24) "makes an intelligent guess" about jobs requiring increasingly higher qualifications but this, according to McKenzie, remains an unresearched area. The present thesis sets the scene regionally to allow a full analysis throughout all regions of New Zealand which in the future will allow researchers to test the possible linkage between educational qualifications and employment.

Historical

In New Zealand in the nineteenth century there were marked differences in regional populations, especially in the number of people (population density) and the makeup

of regional populations (such as age and gender makeup) (Gibson, 1972, pp. 34-35, pp. 94-95). Thus it is difficult to compare accurately schooling in different regions to detect real regional differences and to perhaps detect national trends where all or most regions show similar changes or trends. Previous work developed a methodology to overcome some of the major issues relating to population variability (Hodder, 2005). The methods allow the comparison of school attendance and retention in regions with different populations and to study changes over time. These methods will be applied in the present thesis.

The data to be used in the present research have been available for a long time but have never been analysed in the systematic way that is set out in this study. Although in the education literature there have been some comments about the topic covered in the present work, no detailed and systematic analyses have been carried out particularly considering regional variations and gender differences for the various Education Districts over a period of some thirty years.

The Education Act of 1877 is regarded historically as the pivotal point in the history of New Zealand education and is considered to still influence education in New Zealand at the beginning of the twenty first century. This Act has been widely studied and analysed (e.g., Butchers, 1930; Mackey, 1967; Ewing, 1970) but none of these earlier studies have analysed school attendance by age and by Standard level using cohorts of pupils over such a long period of time and for individual Education Districts. This thesis analyses data for thirteen individual Education Districts separately and compares the findings among the various Education Districts.

The period 1880 to 1910 was selected because this is the time when public education in New Zealand was almost exclusively at the primary level, with some public secondary education beginning to be provided from the first decade of the twentieth century. During this period about 75% of the population aged 5-15 years was being educated at Government primary schools (although the percentage for females was consistently about 3% below that of males) (data from 1906 Census) and the literacy rate of the population over 5 y increased from 85% in 1881 to 94% in 1911 (Bloomfield, 1984, p.111). The present study starts with data from 1880 when the Education Act of 1877 was fully operational, having come into force on 1 January

1878; however, because of the low density of the population and the isolated nature of many communities, it was some time before the requirements of the Education Act were fully effective.

The end of the study coincides with the 1910 Education Amendment Act which for the first time made school attendance compulsory for all pupils between the ages of 7 years and 14 years on *all* occasions when the school was open.

Data for the Standard level at which pupils were studying were available only from 1880 to 1904 in comparable form. After 1904, data on Standard pass rates were no longer provided and thus after 1904 the retention of pupils in cohorts through successive Standards could not be calculated in a manner comparable with the calculations used for earlier data.

Background

Education Districts and Education Boards

In total, twelve Education Districts were set up under the 1877 Education Act (see Figs 1, 2, 3); each Education District was made up of specified counties (see Table 1); counties and boroughs had been set up in 1876 under the Counties Act.

Each Education District was controlled and administered by an Education Board usually located in a main centre and usually far removed from the small local schools. The Education Districts set up by the 1877 Education Act mostly followed the boundaries of the provincial areas that had been abolished when the provinces were dismantled in 1876 (King, 2003, p. 232). Many of the members of the newly constituted Education Boards had previously been members of the Provincial Education Boards and so it is not surprising that the new Education Boards continued along mostly the same lines as the earlier Provincial Education Boards although these Boards were now responsible to the central Department of Education. This Department, however, was a new entity established by the 1877 Education Act and had few resources (Butchers, 1930, p. 39). Thus the Education Boards were able to assume more powers and responsibilities than may have been originally envisaged,

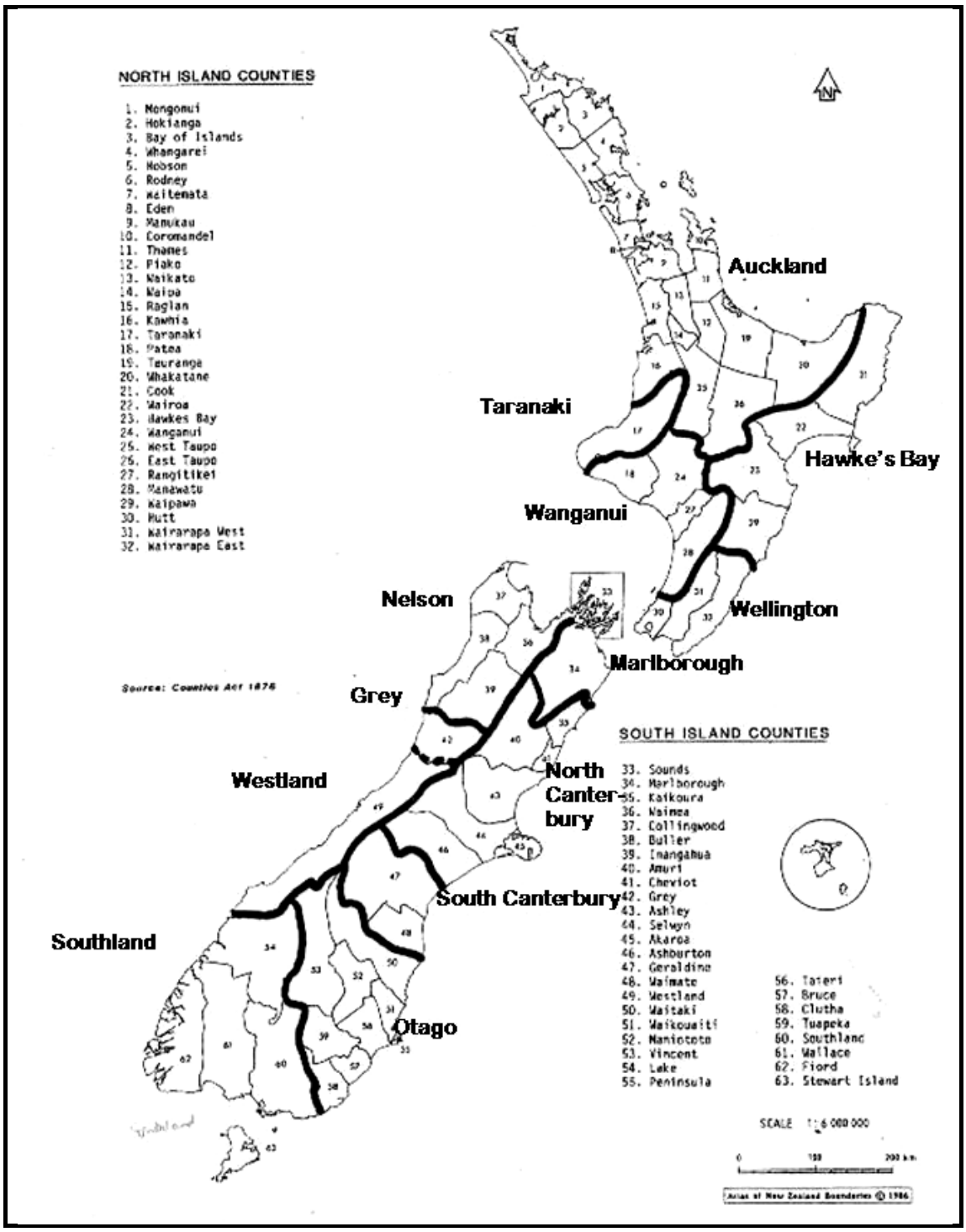


Fig. 1 – Education Districts of New Zealand as established by the 1877 Education Act based on the counties established by the Counties Act 1876 (based on map from Marshall, 1986)

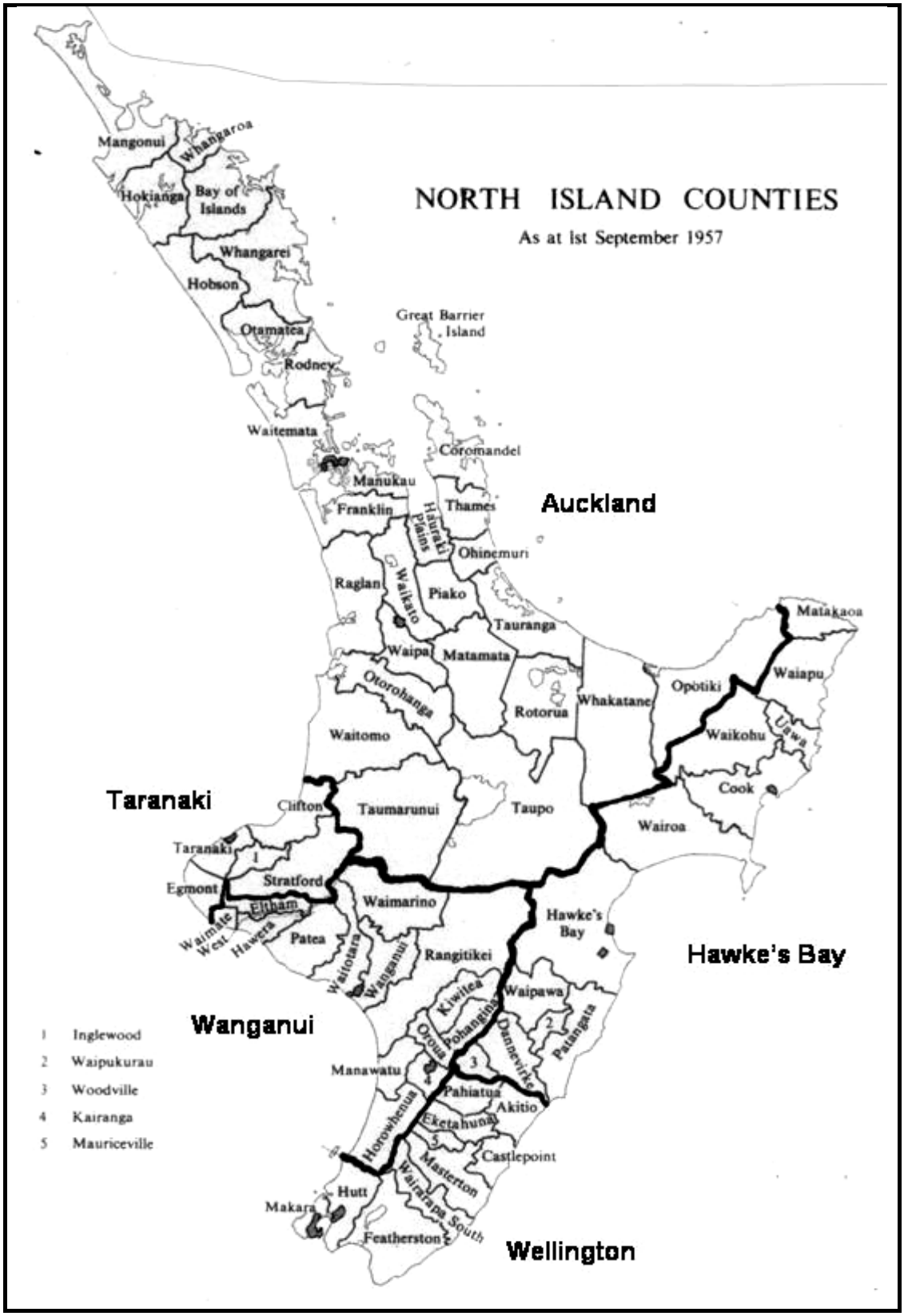


Fig. 2 – Education Districts of the North Island based on counties as at 1957 (based on McLintock, 1960, map 48)

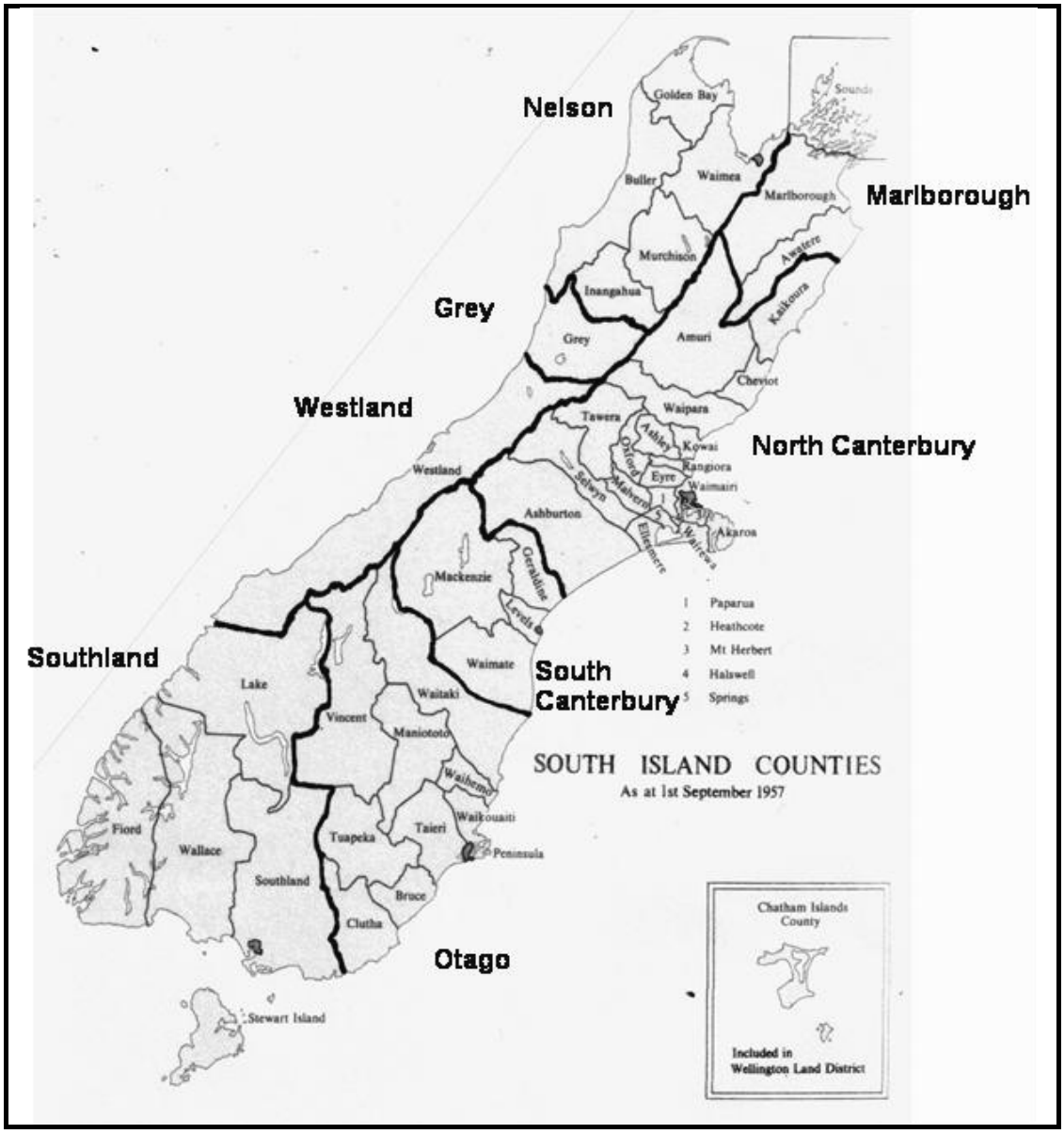


Fig. 3 – Education Districts of the South Island based on counties as at 1957 (based on McLintock, 1960, map 48)

Table 1 – The counties that made up the twelve Education Districts in 1878 (as set up by the 1877 Education Act)

Education District	Counties
Auckland	Mongonui Hokianga Bay of Islands Hobson Whangarei Rodney Waitemata Eden Manukau Raglan Waikato Waipa Coromandel Thames Piako Tauranga Whakatane East Taupo West Taupo Kawhia
Taranaki	Taranaki
Wanganui	Patea Wanganui Rangitikei Manawatu
Wellington	Wairarapa East Wairarapa West Hutt
Hawke's Bay	Cook Wairoa Hawke's Bay Waipawa
Marlborough	Sounds Marlborough
Nelson	Collingwood Buller Inangahua Waimea
North	Kaikoura Amuri Cheviot Ashley Akaroa Selwyn Ashburton
South	Geraldine Waimate
Westland	Westland Grey
Otago	Waitaki Vincent Maniototo Waikouaiti Taieri Peninsular Bruce Tuapeka Clutha
Southland	Lake Southland Fiord Wallace Stewart Island

and they became very powerful bodies controlling many aspects of the education system within their District.

The financial position of the various Education Boards varied considerably. Some Boards had more than sufficient funds and even had large surpluses from endowments dating back to Provincial times (for example, Canterbury and Otago; Cumming, 1959 p. 129). Other Boards without such endowment provisions were totally reliant on

funding from central government in the form of capitation grants. When the 1877 Education Act came into force a national education system was born and along with this was the need to fund education on a national basis. The new scheme was set up to pay a statutory capitation amount for each child attending government schools. The capitation grant was initially set at 3 pounds 15 shillings (£3 15s) per pupil in average attendance with the money being paid to the Education Boards who then distributed the funds to the School Committees.

An Order in Council in May 1878 (*New Zealand Gazette*, 30 May 1878, pp. 694-695) spelt out in detail the methods for calculating the average attendance for each school. There were two types of average attendance - the strict average and the working average.

Strict average was calculated as: $\frac{a+p}{f+n}$

where: a = the number of morning attendances
p = the number of afternoon attendances
f = the number of times the school was open in the morning during the period under consideration
n = the number of times the school was open during the afternoon during the period under consideration.

The working average was calculated as: $\frac{a+p}{(d-b)+(e-c)}$

where: a = the number of morning attendances
p = the number of afternoon attendances
b = the number of times the school was open in the morning where number attending was less than half the number on the roll
c = the number of times the school was open in the afternoon where number attending was less than half the number on the roll
d = the number of times the school was open during the morning during the period under consideration
e = the number of times the school was open during the afternoon during the period under consideration.

Thus the main difference between the two averages was that for the working average the days on which attendance was less than half the number of pupils on the roll were ignored (Ewing, 1970, p. 34).

Comparing these two forms of calculating the average attendances, even small differences in attendance could result in quite large variations in the calculations and thus in the money available to the school. For example, if a school had a roll of 100 pupils and was open for 40 half-days in a month (20 morning sessions and 20 afternoon sessions), and if 80 pupils attended every morning and 70 pupils attended every afternoon, the strict average attendance would have been:

$$\frac{(80 \text{ pupils} \times 20 \text{ mornings open}) + (70 \text{ pupils} \times 20 \text{ afternoons open})}{20 \text{ mornings open} + 20 \text{ afternoons open}} = 75 \text{ pupils}$$

If fewer than one-half of the pupils on the roll (say 45 pupils out of 100) attended on 3 mornings and on 4 afternoons in the month, then the working average attendance would have been:

$$\frac{((80 \text{ pupils} \times 17 \text{ mornings}) + (45 \text{ pupils} \times 3 \text{ mornings})) + ((70 \text{ pupils} \times 16 \text{ afternoons}) + (4 \text{ pupils} \times 45 \text{ afternoons}))}{(20 \text{ mornings open}) - (3 \text{ mornings with <half roll}) + ((20 \text{ afternoons open}) - (4 \text{ afternoons with <half roll}))}$$

$$= \frac{(1360 + 135) + (1120 + 180)}{17 + 16} = 84.7 \text{ pupils}$$

Thus with these different methods of calculating the average attendance there is a difference of about 9 pupils which, at a capitation rate of £3 15s per pupil per year, would mean a difference of £2 16s 3d income for the school in one month or an annual difference of £33 15s. This is a reasonably substantial sum of money when it is compared, for example, to the annual salary of only £30 that many female pupil teachers received at the time. So the extra money would have been enough to employ an additional pupil teacher for a year.

Thus for many Education Boards the number of pupils attending schools regularly was of critical importance for financial reasons. Cumming & Cumming (1978, p. 101) note that in the late 1880s some Education Boards were urging the abolition of the strict average calculation in favour of the working average because of the disparity of funding resulting from these two methods. The Boards noted that the number of pupils actually attending was often reduced because of circumstances over which the Boards and teachers had no control; for example bad weather, bad roads, swollen creeks, illness epidemics, and so on.

Compulsory school attendance legislation and regulations

The Education Act of 1877, which came into force on 1 January 1878, set out for the first time in New Zealand a national education system which was to be free, secular and compulsory. Among the various aspects of the legislation, children between the ages of 7 and 13 years were required to be attending a recognised school or to be being adequately educated at home. Those attending government schools were required to attend for at least one half of the period each year when the school was open. Those children who had passed Standard 4 could be exempted from attending (irrespective of their age) as could those who had reached their thirteenth birthday (irrespective of the level they had reached).

Individual schools were administered by a local school committee made up of annually-elected local householders. The school committee controlled many aspects of the school including the implementing (or otherwise) of the compulsory attendance regulations.

The enforcement of the compulsory attendance clause of the 1877 Education Act was in the hands of the local school committee which could choose not to enforce it. Some school committees enforced the clause immediately while others were still debating the issue some 10 years after the Act was passed (Hodder, 1996, p. 105). In fact, the compulsory clause of the Act was often laxly enforced perhaps because the members of school committees were reluctant to take action against their neighbours or even against one of their own members (Campbell, 1941, p. 89).

The Education Act was amended with the 1885 Education Amendment Act which came into force on 1 January 1886. It required attendance of children between the ages of 7 and 13 years who lived within 2 miles of a school by road, for 30 days each quarter; the level of exemption remained at Standard 4 and the age of exemption was 13 years (Table 2). It has been claimed that during the 1880s the majority of children, especially boys in the country districts, left school for good at the age of about twelve, after passing Standard 4 (Campbell, 1941, p. 90). An inspector in the 1880s noted the attainments of the average boy as follows:

> He can read a passage of ordinary difficulty from a newspaper, not well, but intelligently; he can write a short letter on some simple subject in a legible hand, and probably without gross misspellings; and he knows enough of figures to be able to make out or check a tradesman's bill. As to the rest of his acquirements … no apprehension need be felt that the scraps of geography, grammar and history that he may have picked up should be a serious obstacle to his success in life (quoted by Campbell, 1941, p. 90).

A decade after the 1885 Education Amendment Act, the attendance requirements of pupils were again tightened with the 1894 School Attendance Act which required pupils' attendance for 6 times in any week when the school was open at least 9 times, each morning and afternoon session being counted separately. Note that school attendance was calculated in half-days and in effect this legislation still permitted pupils one and a half days away from school each week.

A Regulation published in 1899 raised the level of exemption to Standard 5 and two years later school attendance requirements were increased by the 1901 School Attendance Act which required children aged between 7 and 14 years to attend school two times less than the number of times the school was open per week.

Table 2 – Legislation and regulations affecting school attendance

Legislation	Attendance required	Age (yrs)	Exemption* level	Operational from
1877 Education Act	At least ½ the period each year when school open	7-13	Std 4	1 Jan 1878
1885 Education Amendment Act	30 days each quarter	7-13	Std 4	1 Jan 1886
1894 School Attendance Act	6 times in any week when school open at least 9 times (counted as ½ days)	7-13	Std 4	Dated 9 Oct 1894
1894 Factories Act	To be employed under 16 y must have passed Std 4		Std 4	Dated 18 Oct 1894
1899 Regulation	Teachers to conduct Std 1 to Std 5 exams for pass subjects; Inspectors examine Std 6		Std 5	Dated 18 Dec 1899
1901 School Attendance Act	2 times less than times school open per week (counted as ½ days)	7-14	Std 5	Dated 7 Nov 1901
1910 Education Amendment Act	Compulsory to be on the register of some public school and attend whenever school open	7-14	Std 5	1 Jan 1911
1914 Education Act		7-14	Std 6	1 Jan 1915

Sources: Legislation and regulations published in official sources (*New Zealand Statutes* and *New Zealand Gazette*)

* Exemption level is the Standard level at which a pupil can be exempted from attending school irrespective of age. The examination for the Standard of exemption must have been passed.

It was not until the passing of the Education Amendment Act of 1910 that all children between the ages of 7 and 14 years were required to attend school whenever the school was open (Butchers, 1930, p. 48).

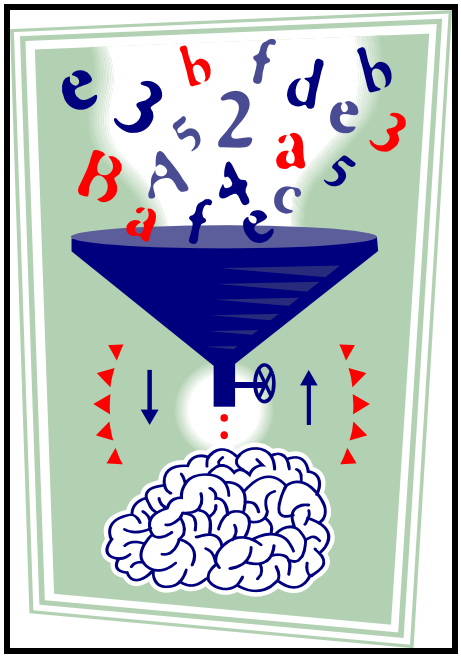
Thus, although the 1877 Education Act set out to provide compulsory education for all children, it was over 30 years later that this became a reality. Until then there were always times when in fact children were permitted to be absent from school legitimately. The tightening of school attendance laws was seen by some as having little to do with educating young people and a lot to do with social control and reducing crime and delinquency (Jones, McCulloch, Marshall, Smith, & Smith, 1990, p. 34). In some cases the children who should have attended school were not able to do so because of inadequate or insufficient school accommodation (see Matthews, 1988, p. 19) especially during the depression of the 1880s when education funding cuts meant there was virtually no money available for extensions to and repair of school buildings.

It has been claimed that the 1901 School Attendance Act had a significant effect on school pupil numbers (Butchers, 1930, pp. 263-264) although the effect may well have been different in different Education Districts. There has been no research on regional differences in the effect of this legislation.

Conventional explanations (see Butchers, 1930; Ewing, 1970; Cumming & Cumming, 1978) claim that the rise in school enrolments and attendance after 1877 was the result of progressively stricter school attendance legislation. Some researchers (see McKenzie *et al.*, 1996, p. 34), however, suggest that improvements in school attendance from 1877 up to 1920 have little direct relationship to the increasingly strict attendance laws. Rather, these authors suggest that the changes seen were related to prevailing social and economic circumstances at the time.

Chapter 2

Data and Methods



Chapter 2 Data and Methods

Demographic methods

Period analysis

Period analysis is a demographic method whereby changes in populations are analysed by comparing data for different times or time periods. Shryock & Siegel (1976, p. 550) note that "period data provide a current annual "picture" with respect to the event or characteristic under consideration". One of the main aspects of period analyses is to discriminate between changes that result from the composition or structure of a population and the cohort processes that are operating at that time in order to measure their respective impact on population change (Wunsch & Termote, 1978, p. 51). Observations for several cohorts recorded in a single year may be combined as if they were the observations of a single cohort recorded over several years. Such period aggregations are often referred to as "synthetic" or hypothetical cohorts. Thus synthetic cohorts are represented by period data combined in such a way as to reflect hypothetical experience over a span of years (Shryock & Siegel, 1976, p. 551) although the data are for a single year.

Cohort analysis

A group of persons who experience a particular event during the same period of time is termed a cohort (Wunsch & Termote, 1978, p. 7). Also, a cohort is a group of persons with a common characteristic (Pol & Thomas, 1992, p. 134). Cohorts have also been defined as a group of individuals linked as a group in some way (Glenn, 1977, p. 5) and cohort analysis is a method of investigating the changes in patterns of behaviour or attitudes. Typically, cohort analysis refers to any study in which there are measures of some characteristic of one or more cohorts at two or more points in time (Glenn, 1977, p. 9). For some analyses cohorts will be constructed which will be real while others will be synthetic or hypothetical. Age cohorts are identified by grouping together persons who were born within a single year or a certain range of years. Cohort analysis typically involves following a cohort over time and can be used to measure the change in number and proportion of persons in various age groupings over time and cohort-to-cohort comparisons allow the assessment of change in cohort behaviour over time (Pol & Thomas, 1992, p. 134).

In the present study, two types of cohorts will be considered: firstly age cohorts in which pupils of the same age or in the same age group will be followed over time, and secondly pupils who are at the same level of schooling (in the same 'Standard') will be followed over successive years. The former cohorts are the types of cohorts referred to as real cohorts by Shryock & Siegel (1976, p. 551). The latter cohorts will be followed to successive levels of schooling (Standards) using comparisons of expected and observed numbers of pupils at particular levels.

In the present study cohorts of pupils in successive school levels are constructed using recorded pupil numbers and pass and fail rates for various levels at the annual examinations. The calculated expected number of pupils and the actual observed number of pupils in the following year are then compared. The calculated expected number of pupils is not necessarily made up of the same pupils as those actually found in the initial cohort, and they may not be the same as those in the cohort of the next level in the following year. To ensure there is no confusion, in this study the term **constructed cohort** is used for Standard level cohorts of pupils that are tracked over a number of Standard levels.

Shryock & Siegel (1976, p. 553) note that cohort analysis has been applied to the study of educational progression after entry into school but the data used for such analysis has generally been contemporary data from the middle of the twentieth century or later (Shryock & Siegel, 1976, p. 180). School progression is usually not dependent on passing an annual examination but is dependent on moving to successive level principally based on age. The present work aims to apply a similar cohort analysis method to historical education data from the nineteenth century which have not previously been analysed.

Data were collected from the Appendix Tables attached to the Annual Reports of the Minister of Education (usually E-1 Reports) published in the *Appendices to the Journals of the House of Representatives* for the last 20 years of the nineteenth century and the first decade of the twentieth century (1880 – 1911). In some cases data were not available for this complete range of dates; this is indicated where appropriate.

All data for the 13 Education Districts over the 30 years under consideration were gathered from the original nineteenth century primary sources. These data were then manually grouped as needed and manually entered into electronic databases. Most of the calculations were carried out manually with some simple calculations carried out electronically. The manual and electronic calculations were then used to produce the graphics to show trends over time; these graphics were used in interpretations of the results of the investigation.

(a) School retention - age

Department of Education Annual Reports' Appendix Tables (published in the *Appendices to the Journals of the House of Representatives* as, usually, E-1 Reports) give the yearly number of pupils "on the books" of government primary schools in the last quarter of each school year in the various Education Districts. Information on the age of pupils was used to calculate the proportions of pupils in the various age groups and an attempt was made to track pupils in individual cohorts from the 7-9 y cohort for up to 6 years to try and determine when pupils left the education system. This was done by comparing the number of pupils in various age groups as proportions of the most stable age group (the 7-9 y group). Males and females were considered separately to try and determine if there are gender differences in the age of attendance. By using proportions related to a stable group within the population, the effects of changing population numbers can be minimised. Calculations were carried out for a number of separate cohorts over the 30-year period under consideration.

(b) School retention - level

Department of Education Annual Reports also give yearly data on the level of education of pupils on the rolls of government primary schools (the 'Standard' at which pupils were studying). Using these figures, a method was devised to try and determine at what Standard level the pupils leave the education system. This was done by starting with the pupils at one level (Standard) and constructing synthetic cohorts (termed constructed cohorts in this study) to try and track these pupils through the succeeding Standards into the post-compulsory levels of schooling (Standard 5 and Standard 6 in particular). The numbers of pupils actually observed in these higher Standards were compared to the expected (calculated) number of pupils in those same Standards over a period of about 20 years (as calculated from synthetic constructed

cohort estimates). Any changes over time that are detected will allow future research to relate education with the economic fortunes of a region including the employment prospects of school leavers.

Education data

Education data are available for each year from 1878 and are published in the Education Minister's Annual Report in the *Appendices to the Journals of the House of Representatives*. The data on pupil attendances at government primary schools and the level of schooling of the pupils are given separately for each of the twelve (later thirteen) Education Districts. These Education Districts were set up under the Education Act of 1877 and are detailed in the Second Schedule of that Act. Initially twelve Education Districts were established; in 1885 a new Education District of Grey was established by cutting off part of the Westland Education District.

The Education Act of 1877 details the counties that are to make up each Education District. Over time the number of counties increased and the boundaries of the counties as described above changed slightly; these changes have been taken into account in this study so, for example, the initial boundary of the Auckland Education District has been retained as originally set up under the Education Act of 1877 even though there have been changes to the counties included in this Education District allowing longitudinal comparisons of the educational data to be made. A map of the original counties of 1876 was used to draw the boundaries of the original Education Districts using the listing of counties from the census of 1881. Later censuses contained additional counties and the relationship of these to the original counties and also the boundaries of the various Education Districts were determined using a later map of counties' boundaries (dated 1957). Maps of the boundaries of the various Education Districts were constructed manually as none were available which detailed the counties included in all the Education Districts. Maps based on the original 1876 counties and those based on the 1957 counties were used to select the appropriate counties that form the thirteen Education Districts when gathering data from censuses in the nineteenth and early twentieth centuries.

Age distribution of pupils at government primary schools

Data used

Data from the Annual Report of the Minster of Education, printed in the *Appendices to the Journals of the House of Representatives*, were collected manually and were compiled and amalgamated manually from these primary sources. The source tables of data list the ages of scholars on the books in government schools each Education District for the last quarter (or fourth quarter) of each year. The ages of the pupils are usually grouped into bands as follows: under 5 years, 5 and under 7 years, 7 and under 10 years, 10 and under 13 years, 13 and under 15 years, and over 15 years. In this work the demographic usage of age ranges is used. Thus the age band "5 and under 7 years" is recorded as "5-6 y"; the term "6 y" is used for children from the time they have passed their sixth birthday and until the day before they reach their seventh birthday. Occasionally data were provided in the source tables in smaller age bands such as 5 and under 6 years, 6 and under 7 years, 7 and under 8 years, etc.; in such cases the data were manually amalgamated into the age bands noted above to allow comparisons of data from various years. Pupils listed as "under 5 years" and those listed as "over 15 years" were manually removed from the pupil totals so only pupils aged between 5 and 15 years were considered. Data for males and females were considered separately and were also amalgamated manually as noted above.

In the last part of this study, individual age cohorts were tracked through the various age groups for each gender. The proportion of males and females in each age group was calculated and this proportion was compared with the gender proportions in the total school population. Since pupils were grouped into age bands, the proportions of pupils in the 7-9 y cohorts were compared to those in the 10-12 y cohort after three years, and these in turn were compared with those in the 13-14 y cohort three years later again. This is because the youngest pupils in the 7-9 y age group will take three years to move into the next age band at age 10 years; similarly it will take a pupil three years to move from the 10-12 y age group to the 13-14 y age group. While it is recognised that the oldest age group (13-14 y) covers only two years rather than the three years of other groups, the proportion of the genders should not be affected by this slightly smaller age range. Individual age cohorts starting at 5-year intervals were

tracked (starting in 1880, 1885, 1890, 1895, 1900 for age cohorts 7-9 y) and a total of six separate cohorts were analysed.

Methods

Data printed in the tables in the *Appendices to the Journals of the House of Representatives* were collected manually and were regrouped manually to provide a continuous series of comparable age groups from 1880 to 1911. Figures for both males and females were available for the total time period being investigated.

The first part of this work used period analyses for each year to consider the proportion of the school pupils aged 5 to 15 years in various age groups over time and compared the proportions of males and females. While this method is a traditional demographic approach to such data it has not previously been used for this set of data or any similar historical education data and systematic gender comparisons of these data have not previously been reported in the literature.

The analyses in the second part of this work use the same data sets as for the first part of this work; ratios where one age group is related to another were calculated from the data sets. The use of ratios is not uncommon in such work. However, there have been no previous reports in the literature of the use of ratios to try and relate various school pupil age groups with each other. The use of ratios of younger and older school pupils with the same denominator (using the number of pupils in the middle age group as the denominator) is an attempt to determine in which age group the greatest changes in pupil numbers occurred over time. If the changes for the youngest age group can be deconvoluted from the changes in the older age groups this would allow a comparison of children entering schools with the birth rate in the population which was falling rapidly during the last two decades of the nineteenth century. Such a study has not previously been attempted and the present work will allow the first systematic gender comparisons over a 30-year period to be investigated. In addition, by deconvoluting the older age group from the younger ones, it may be possible to determine at what age pupils were actually leaving the schooling system. Previous writings on this subject have not been supported with actual yearly data. The present investigations would allow actual school leaving age to be related to legislation dealing with school

attendance and employment of younger workers, and overall employment prospects for males and females when they left school.

The third part of this work deals with age cohorts and attempts to track the proportions of pupils of individual age cohorts in various age groups over time and to make a first study of gender differences. The method of cohort analysis is a normal demographic technique but such an analysis has not previously been attempted using these data. The cohorts used are real in that the pupils in one age group will generally be the same pupils in the next age group after the appropriate number of years. This method does not, however, distinguish those pupils who move in and out of the region or Education District and thus the cohorts being studied should be labelled *derived* or *synthetic* cohorts. Changes in individual cohorts over time allow gender comparisons which in turn can lead to information about gender differences in the school leaving age. A detailed analysis of this topic has not previously been reported in the literature for this time period.

Throughout this study standard recognised demographic methods are applied to data from a previously unexplored source in a way that has not previously been reported in the literature. The analyses described above will allow further detailed investigations in areas of schooling and employment that have not previously been possible.

Level of schooling

Data used

This work used education data from the Annual Reports of the Minister of Education which relate to the number of pupils on the rolls of the government schools in the fourth quarter of the school year for each year considered. Data were available for the period 1880 to 1904 and were collected manually from the primary source. In addition, the Education Minster's Report contained information on the pass rates for each Education District for pupils in each Standard. These pass rates were the pass rates for those pupils who were presented for examination for each Standard rather than the pass rates for all pupils in each Standard (not all pupils in a Standard were presented for examination for a variety of reasons). From these pass rates, the fail rates were manually calculated for each Standard for each year. Using the number of

pupils in each Standard and the pass/fail rates, it was possible to calculate the number of pupils expected in the next Standard the following year forming an expected cohort. Such cohorts were manually constructed to track pupils from Standard 3 through to Standard 6 with the expected numbers of pupils in each Standard being manually calculated. From the expected and observed numbers of pupils it was then possible to calculate the change in the difference between these two values, expressed as a percentage. In addition, the percentage change in successive Standards for cohorts starting with Standard 3 could be calculated to determine the change between successive Standards for a cohort. Such percentage change calculations are commonly used in demographic studies.

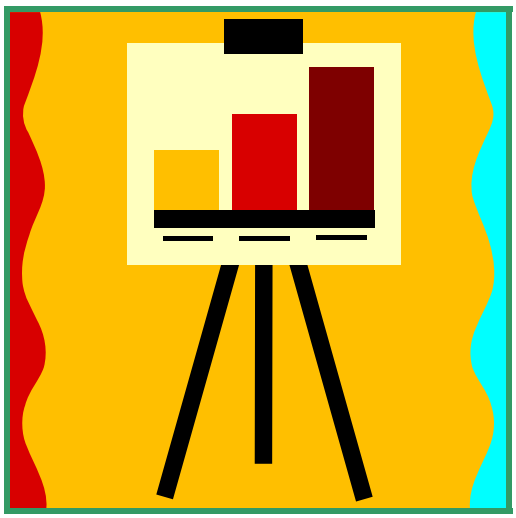
Methods

The methods used in the present work are based on the demographic methods of cohort analysis. The cohorts used in this part of the study were created using real data from a primary source in the form of the recorded number of pupils at each Standard level in each Education District, along with published pass and fail rates for each Standard for the whole Education District. The expected numbers of pupils in successive Standards in successive years were calculated manually and these were compared with the observed number of pupils as recorded in the education data for the same Education District. A series of studies and calculations were then carried out comparing the observed and expected figures to determine at what Standard or level the greatest changes occurred. In this part of the project gender differences could not be calculated as the pass and fail rates available and thus the calculated numbers were for all pupils together rather than being available for males and females separately. Some comments in the published literature appear to suggest that it is possible that the pass rates were different for males and females (Fry, 1985, p. 9; Shuker, 1987, p. 212). However, since the numbers of boys and girls in each Standard level are available, further research may be possible to try to determine gender differences, at least in a crude way, using the same pass rates for both genders. This would involve considerable additional manual calculations and so was not attempted here.

Chapter 3

Results by Education District

– North Island



Chapter 3 Results by Education District – North Island

Auckland

Age and gender

The gender ratios for 5-6 y/7-9 y show little difference for males and females. After an initial decline in the ratios in the early 1880s, possibly linked to a drop in fertility in the New Zealand population at this time, the ratios remained remarkably constant for the remaining years of the nineteenth century, rising only slightly around the turn of the twentieth century. These results suggest that both boys and girls in the 5-6 y age group were attending school in equal numbers.

The ratio of pupils 13-14 y/7-9 y, calculated for each year from 1880 to 1911, shows a general increase over the three decades (Fig. 4). This increase is steadier for males than for females, with a tendency for the ratio for the female ratio to decline somewhat from about 1900. This decline, in conjunction with the rise in the ratio for males, leads to a cross-over between the lines for the two genders. From 1880 to 1900 the ratio for females is greater than for males. After 1900 this is reversed, with the ratio for males being higher that that for females.

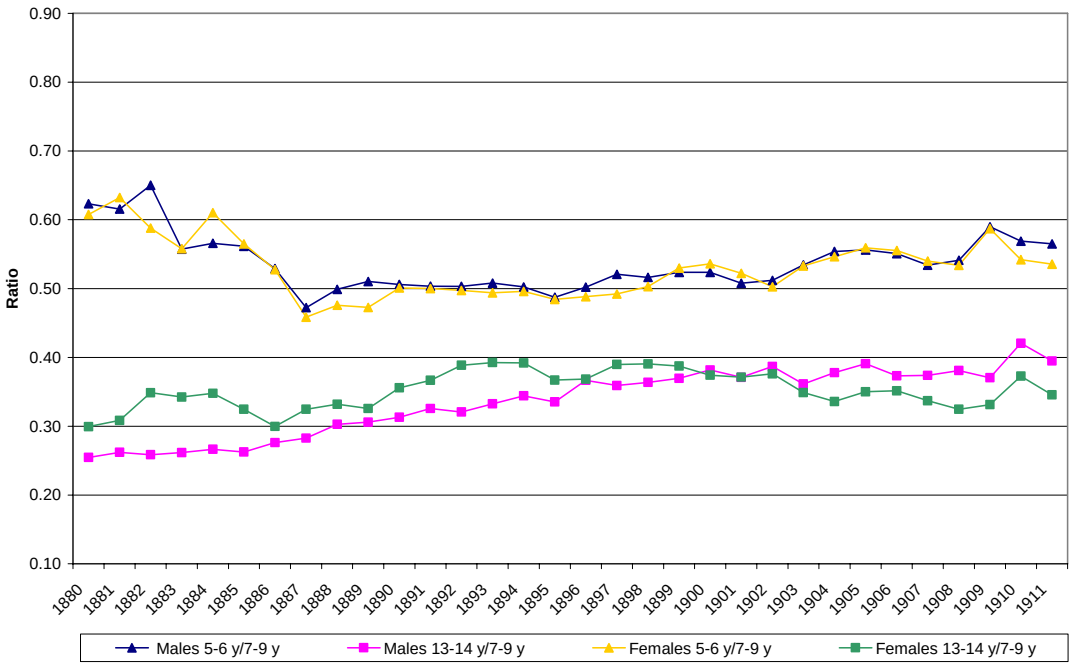


Fig. 4 – Auckland Education District: Ratios for male and female pupils aged 5-6 y and 13-14 y in the numerator, and aged 7-9 y in the denominator, 1880–1911 (calculated from various E-1 Reports)

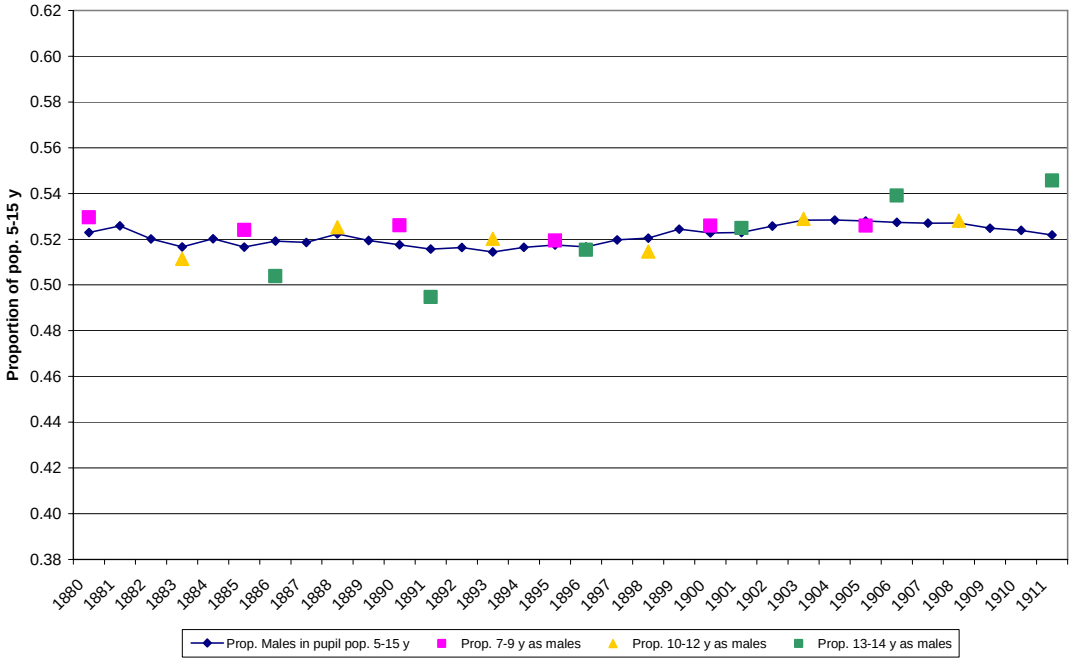


Fig. 5 – Auckland Education District: Proportion of males in the total pupil population aged 5-15 y, and the proportion of males in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 3; calculated from E-1 reports)

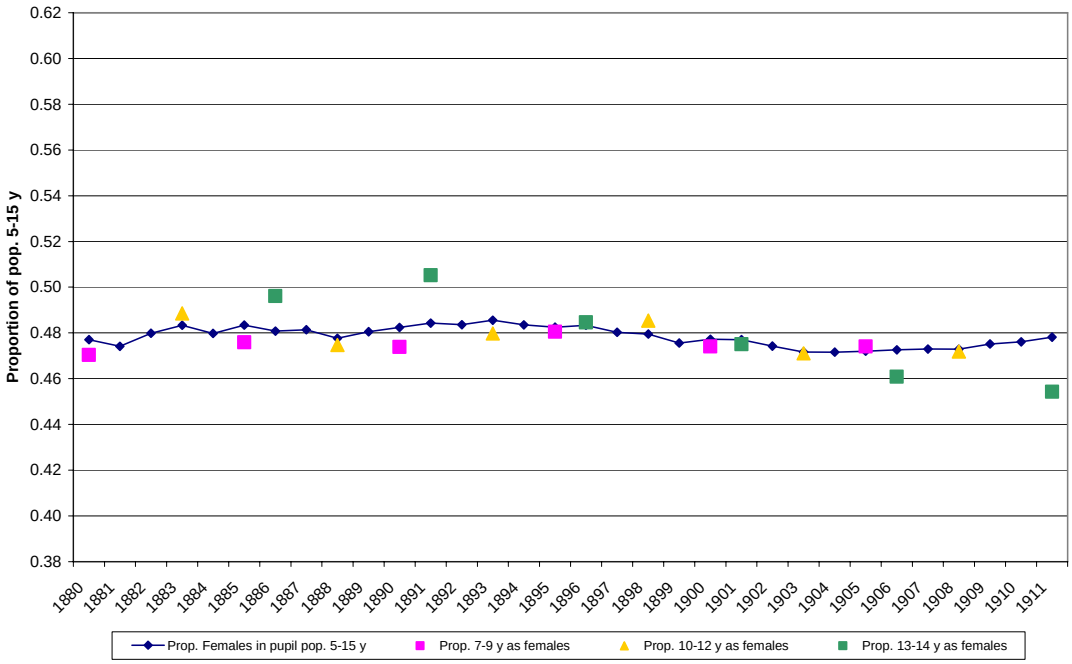


Fig. 6 – Auckland Education District: Proportion of females in the total pupil population aged 5-15 y, and the proportion of females in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 4; calculated from E-1 reports)

Table 3 – Auckland Education District: Proportion of males in the total pupil population aged 5-15 y and the proportion of males in various age groups for 6 constructed cohorts (see also Fig. 5; calculated from E-1 reports)

Year	Prop. males in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as males	Prop. 10-12 y pupils as males	Prop. 13-14 y pupils as males
1880	0.5229	***Cohort 1***	**0.5296**		
1881	0.5258				
1882	0.5201				
1883	0.5166			**0.5115**	
1884	0.5203				
1885	0.5165	***Cohort 2***	**0.5241**		
1886	0.5192				**0.5039**
1887	0.5186				
1888	0.5224			**0.5253**	
1889	0.5195				
1890	0.5176	***Cohort 3***	**0.5261**		
1891	0.5157				**0.4947**
1892	0.5164				
1893	0.5145			**0.5202**	
1894	0.5165				
1895	0.5175	***Cohort 4***	**0.5195**		
1896	0.5167				**0.5154**
1897	0.5197				
1898	0.5205			**0.5146**	
1899	0.5244				
1900	0.5228	***Cohort 5***	**0.5259**		
1901	0.5229				**0.5249**
1902	0.5258				
1903	0.5283			**0.5289**	
1904	0.5284				
1905	0.5280	***Cohort 6***	**0.5259**		
1906	0.5274				**0.5391**
1907	0.5270				
1908	0.5271			**0.5281**	
1909	0.5248				
1910	0.5239				
1911	0.5218				**0.5457**

These ratios suggest that the female pupils aged 13-14 y in each year constitute about 30% of the 7-9 y female pupils in 1880, rising to about 38% in 1894 and then declining to about 32% in 1908.

Table 4 – Auckland Education District: Proportion of females in the total pupil population aged 5-15 y and the proportion of females in various age groups for 6 constructed cohorts (see also Fig. 6; calculated from E-1 reports)

Year	Prop. females in pupil pop. 5-15y		Age group		
			Prop. 7-9 y pupils as females	Prop. 10-12 y pupils as females	Prop. 13-14 y pupils as females
1880	0.4771	***Cohort 1***	**0.4704**		
1881	0.4742				
1882	0.4799				
1883	0.4834			**0.4885**	
1884	0.4797				
1885	0.4835	***Cohort 2***	**0.4759**		
1886	0.4808				**0.4961**
1887	0.4814				
1888	0.4776			**0.4747**	
1889	0.4805				
1890	0.4824	***Cohort 3***	**0.4739**		
1891	0.4843				**0.5053**
1892	0.4836				
1893	0.4855			**0.4798**	
1894	0.4835				
1895	0.4825	***Cohort 4***	**0.4805**		
1896	0.4833				**0.4846**
1897	0.4803				
1898	0.4795			**0.4854**	
1899	0.4756				
1900	0.4772	***Cohort 5***	**0.4741**		
1901	0.4771				**0.4751**
1902	0.4742				
1903	0.4717			**0.4711**	
1904	0.4716				
1905	0.4720	***Cohort 6***	**0.4741**		
1906	0.4726				**0.4609**
1907	0.4730				
1908	0.4729			**0.4719**	
1909	0.4752				
1910	0.4761				
1911	0.4782				**0.4543**

These results suggest that in the Auckland Education District something encouraged females to leave school earlier from about 1900 compared with males; this is suggested because the ratio of younger pupils (5-6 y) to the same denominator (7-9 y) does not show similar differences for the two genders.

To consider changes for individual cohorts, the proportion of the 5-15 y pupil population in each age group was calculated. Six constructed cohorts were considered for males and females separately. For males, the proportion of males in the total population for the period 1880 to 1911 was calculated. During the nineteenth century males made up close to 52% of the total pupil population, and this rose to close to 53% in the early years of the new century before declining slightly at the end of the first decade of the twentieth century to settle at just over 52% again. In addition, the proportion of males in each of the three age groups (7-9 y, 10-12 y, 13-14 y) was calculated and compared with the overall proportion of male pupils (Table 3; Fig. 5).

Cohorts 1 and 2 show that there were fewer males in the oldest age group; this pattern is reversed for Cohorts 5 and 6 where there were more males in the oldest age group. These trends are reversed for females (Fig. 6) with more females in the oldest age group for Cohorts 1 and 2 and fewer for Cohorts 5 and 6 (Table 4; Fig. 6).

In Figs 5 and 6 the high proportions of each gender is obviously related to the low proportions for the other gender. A high proportion indicates either that there were excess pupils of that gender in that age group OR that there were fewer pupils of the other gender in that age group. Thus for example, if significant numbers of males left schooling before the age of 13 y, then there would be a lower value for the proportion of males in the 13-14 y age group and, at the same time, this would result in an apparent increase in the females in that age group. Figs 5 and 6 on their own do not allow a distinction between one gender leaving schooling early or the other gender staying at school. However, in conjunction with Fig. 4, it can be suggested that from 1900 females were leaving school earlier and thus the rise in the male Cohorts 5 and 6 results not from males remaining longer at school but from females leaving earlier.

Standards levels

Using the number of pupils in each Standard and the pass and fail rates for pupils at each Standard examination, the expected number of pupils in successive Standards can be calculated. From these pupil numbers, the number of pupils actually present in each successive Standard can be used to calculate the ratio of observed pupils to expected pupils for each Standard above Standard 3. For the period 1880 to 1904 the

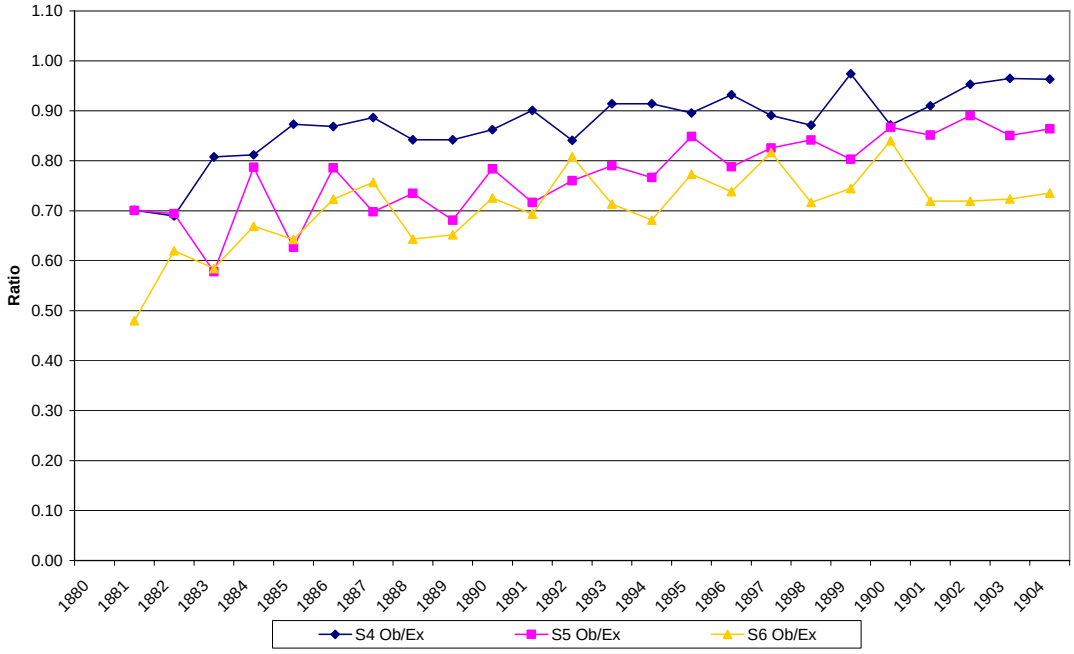


Fig. 7 – Auckland Education District: Ratio of observed pupil numbers to expected pupil numbers for Standards 4, 5 and 6 (Source: E-1 Reports)

ratio for Standard 4 increases slightly from about 0.7 to about 0.9 by 1893 and to about 0.95 by 1904 (Fig. 7).

For Standard 5 the general trend is an increase in the ratio after variable results until about 1888. In the late 1880s the ratio is about 0.7 and rises slowly until it reaches about 0.85 in the early 1900s. For Standard 6 the trends are less clear; there is a slight increase over the period from a ratio of about 0.6 to a ratio of close to 0.8 in the 1890 and then a decline in the early 1900s to a ratio of about 0.7.

The data in Fig. 7 indicate that more pupils leave the pupil population at each successive Standard level: about 80% of the possible pupils from Standard 3 are present at Standard 4; for Standard 5 the ratio indicates that an increasing proportion of Standard 4 pupils remain to Standard 5, increasing from about 70% of possible pupils present in Standard 4 in the 1880s to about 85% of possible pupils by the early 1900s. The trends for Standard 6 are less clear with fluctuations about 70% of possible pupils from Standard 5 remaining to Standard 6 until the turn of the century when the value settles at about 70% of Standard 5 pupils remaining to Standard 6.

To further study the changes between successive Standards, the % change between Standards was calculated: this indicates the amount of pupil "loss" between successive Standards over the period 1881 to 1904. Fig. 8 shows that the loss from Standard 3 to Standard 4 was initially about 40% (in the early 1880s) with a rapid decrease in the loss during the late 1880s. By 1888 the loss from Standard 3 to Standard 4 was less than 20%. The decrease in the loss continued during the early 1890s and by 1896 there was little loss of pupils between Standard 3 and Standard 4. After the turn of the century, however, there was a slight increase in the loss from Standard 3 to Standard 4, with this loss being about 5% in 1902.

The loss of pupils from Standard 4 to Standard 5 was greater than the loss from Standard 3 to Standard 4, as would be expected. In the early 1880s the loss from Standard 4 to Standard 5 was around 50%; the loss decreased during the late 1880s and by the early 1890s the loss from Standard 4 to Standard 5 had settled at about 28%. This level remained until about the turn of the century when there was a sharp decrease in the loss from Standard 4 to Standard 5. By 1903 the loss had decreased to just over 10%.

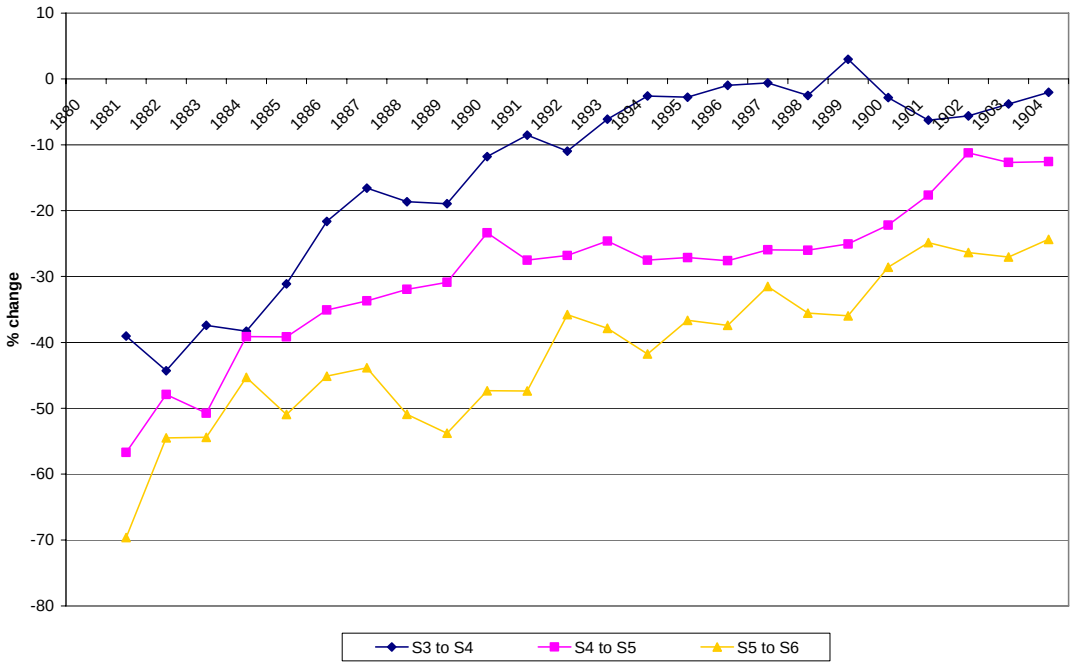


Fig. 8 – Auckland Education District: Percentage change between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6, for yearly cohorts starting in Standard 3 (calculated from E-1 reports)

The loss of pupils from Standard 5 to Standard 6 was rather more variable especially during the 1880s. In the early 1880s the loss from Standard 5 to Standard 6 was over 50%. This level remained until the early 1890s when the loss began to decrease slowly, from just under 50% in 1890 to just below 30% in 1900. During the early 1900s the loss from Standard 5 to Standard 6 settled at around 25%.

Using the data from Fig. 8, individual constructed Standard cohorts were created (Fig. 9). The first point for each cohort is the % loss from Standard 3 to Standard 4; the second point (joined by a line to the first to indicate that it is the same cohort as the first point) indicates the % loss from Standard 4 to Standard 5; similarly the third point indicates the % loss from Standard 5 to Standard 6 for each cohort.

A pattern can be seen from Fig. 9: in the early 1880s there are similar losses at each successive Standard since the lines between successive points for each cohort are relatively short and of similar length. From the mid-1880s (Standard 3 cohort of 1885)

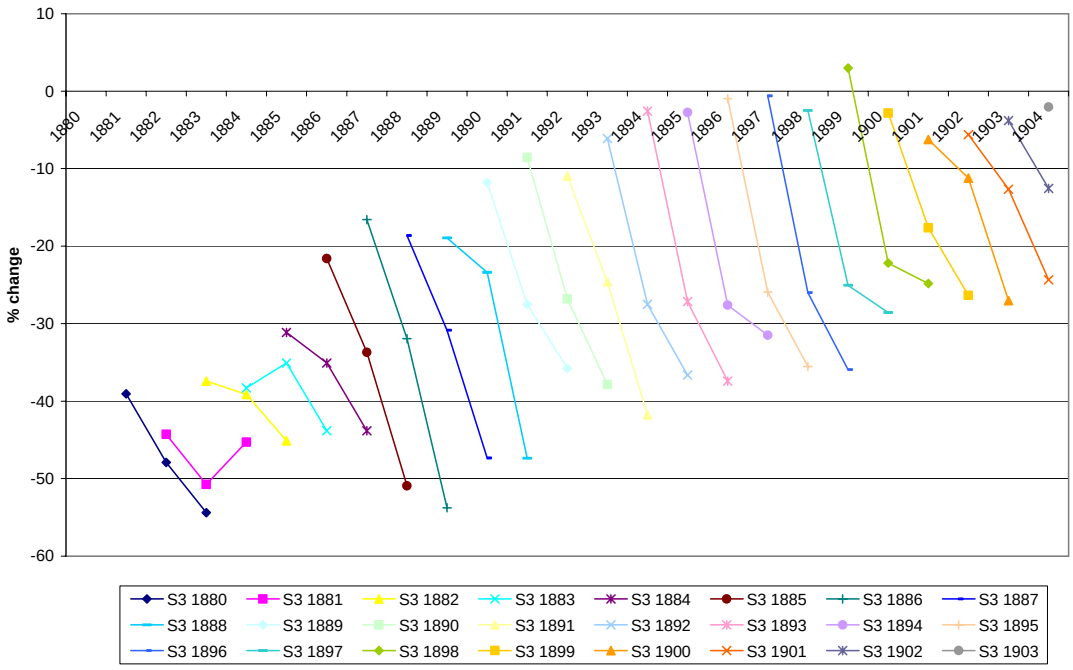


Fig. 9 – Auckland Education District: The percentage changes between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6. Each line represents a single constructed cohort starting in Standard 3; the length of the line between points indicates the percentage loss between successive Standards – the longer the line, the greater the loss (calculated from E-1 reports)

there is a change in pattern: there is now a smaller loss between Standard 3 and Standard 4 (the first point for each cohort), a moderate loss from Standard 4 to Standard 5 (the first line for each cohort) and a greater loss between Standard 5 and Standard 6 (the length of the second line for each cohort is longer than the first line). This pattern continues until the 1890 Standard 3 cohort. With this cohort there is another change in pattern, with the loss from Standard 3 to Standard 4 being very small, the loss from Standard 4 to Standard 5 being over 20% and the loss from Standard 5 to Standard 6 being much less. This pattern continued until the start of the twentieth century. For the Standard 3 cohort of 1900 the loss from Standard 4 to Standard 5 is once again less than the loss from Standard 5 to Standard 6.

These changes in the constructed cohorts over time indicate that during the 1880s pupils were frequently leaving school before reaching Standard 6. After 1890, there was a large loss of pupils after Standard 4 and before Standard 5, with little loss before Standard 4. After the turn of the century, there was once again a greater loss after Standard 5 and before Standard 6.

These results once again point to a change in pupils leaving school in this Education District at the turn of the century. At the beginning of the twentieth century pupils were leaving school earlier than before and with a lower level of qualification.

Summary for Auckland Education District

In summary, in the Auckland Education District, there were changes at certain times which need to be explained. The retention of pupils to the age of 14 y may be related to legislation prohibiting the employment of children under the age of 14 years in factories. In addition, the change in the level of exemption from Standard 4 to Standard 5 in 1899 may have affected the retention of pupils past Standard 4; the retention of pupils to Standard 6 would not have been affected by exemption legislation as the school leaving level was not raised to Standard 6 until 1914.

For many younger people, particularly males, school leaving was probably related to employment opportunities in the region. Employment of younger males was greater than employment of younger females but was considerably less for pupils below 14 years compared with the opportunities for both males and females aged 15-19 y. The

employment opportunities for both males and females thus need to be investigated for the Auckland Education District particularly during the 1880s and early 1890s (when more females were retained at school to 13-14 y than males) and also after the turn of the century when female retention to age 14 y was less than for males. Retention into the highest Standard also was low after the turn of the century, suggesting that perhaps that young people were drawn to employment rather than schooling.

Hawke's Bay

Age and gender

The 5-6 y/7-9 y ratios for both males and females fluctuate somewhat, particularly during the nineteenth century. However, these ratios generally settle around 0.5 by the 1890s. The decline in both ratios during the 1880s may be related to declining fertility in the population.

The ratio of pupils 13-14 y/7-9 y shows an increase from the late 1880s to the turn of the century (Fig. 10). There are no consistent differences between the genders except for a slightly lower ratio for females after the turn of the century. During the

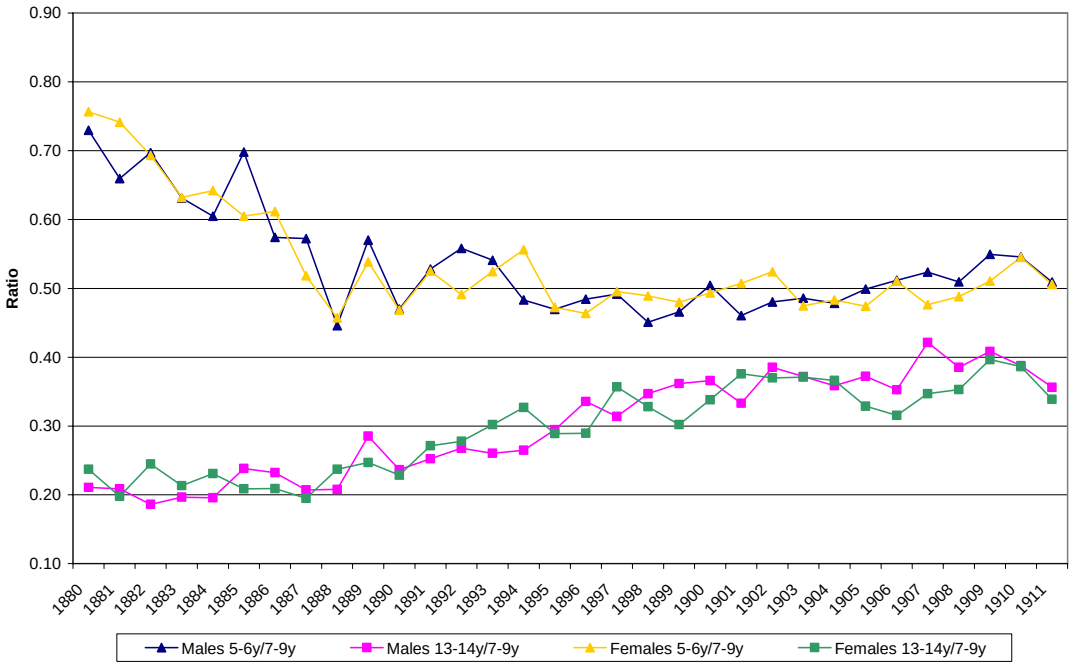


Fig. 10 – Hawke's Bay Education District: Ratios for male and female pupils aged 5-6 y and 13-14 y in the numerator, and aged 7-9 y in the denominator, 1880–1911 (calculated from various E-1 Reports)

nineteenth century the ratio of 13-14 y/7-9 y started at just over 20% and during the 1880s rose to reach about 35% by the end of the century.

These results suggest that whatever influenced pupils to remain at school to the age of 13-14 y applied equally to both males and females. During the early 1880s, until about 1885, there were more males than females attending schools, with over 53% of pupils being males. From the mid-1880s to the mid-1890s the percentage of males declined to just over 52%, and then rose to settle near 53%.

Individual age cohorts show no clear pattern. Of the six cohorts studied, the proportion of males in the 13-14 y age group is alternately higher than the overall percentage of males and then lower than the overall percentage of males (Fig. 11). The only trend that can be discerned is that the last two cohorts show a pattern of increasing proportions of pupils at the higher age groups; similarly for females in the last two cohorts there is a decline in the proportion of females in the 13-14 y age group (Fig. 12). This could be because females were leaving school earlier or males were staying at school longer than females.

Standards levels

The ratio of observed to expected numbers of pupils were considered from 1880 to 1903 (Fig. 13). For Standard 4 there are initially considerable fluctuations in the ratio until the early 1890s. After this, the ratio fluctuates a little around the 90% level. For Standard 5 there are fewer fluctuations with the ratio being around 70% until the early 1890s after which the ratio increased to around 85%.

For Standard 6 there were far fewer pupils at this level compared to the possible number. The ratio in the early 1880s was around 30% of expected pupils, rising slowly but reasonably steadily through the nineteenth century and on into the twentieth century. By the early years of the twentieth century the number of pupils in Standard 6 was about 60% of expected.

The percentage change between successive Standards is shown in Fig. 14. This graph shows that there was initially a loss of about 20% between Standard 3 and Standard 4

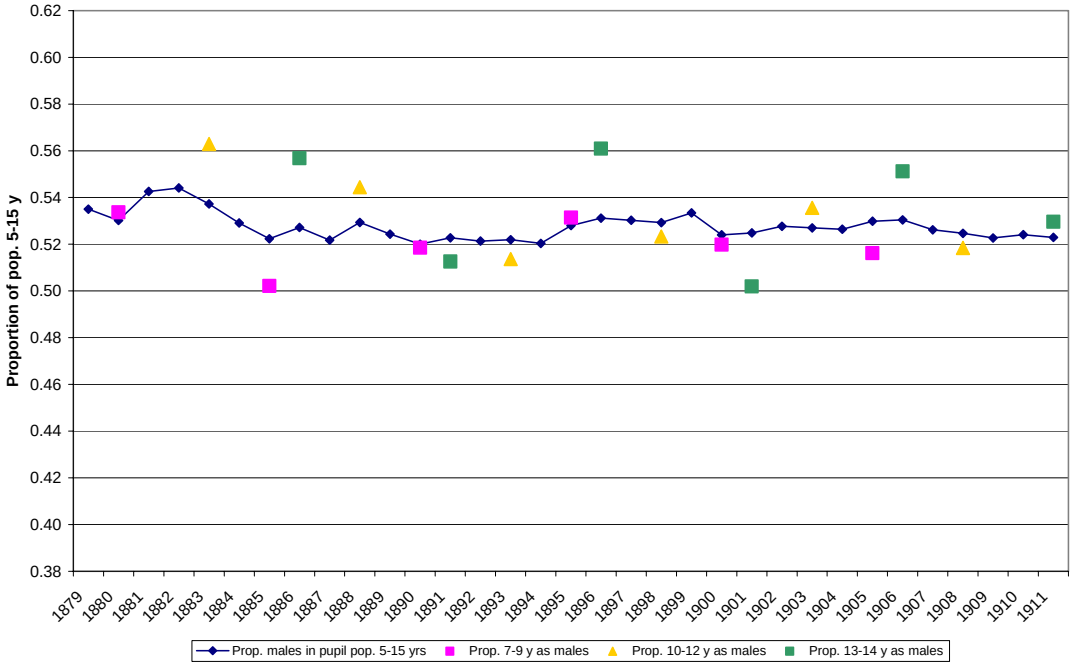


Fig. 11 – Hawke's Bay Education District: Proportion of males in the total pupil population aged 5-15 y, and the proportion of males in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 5; calculated from E-1 reports)

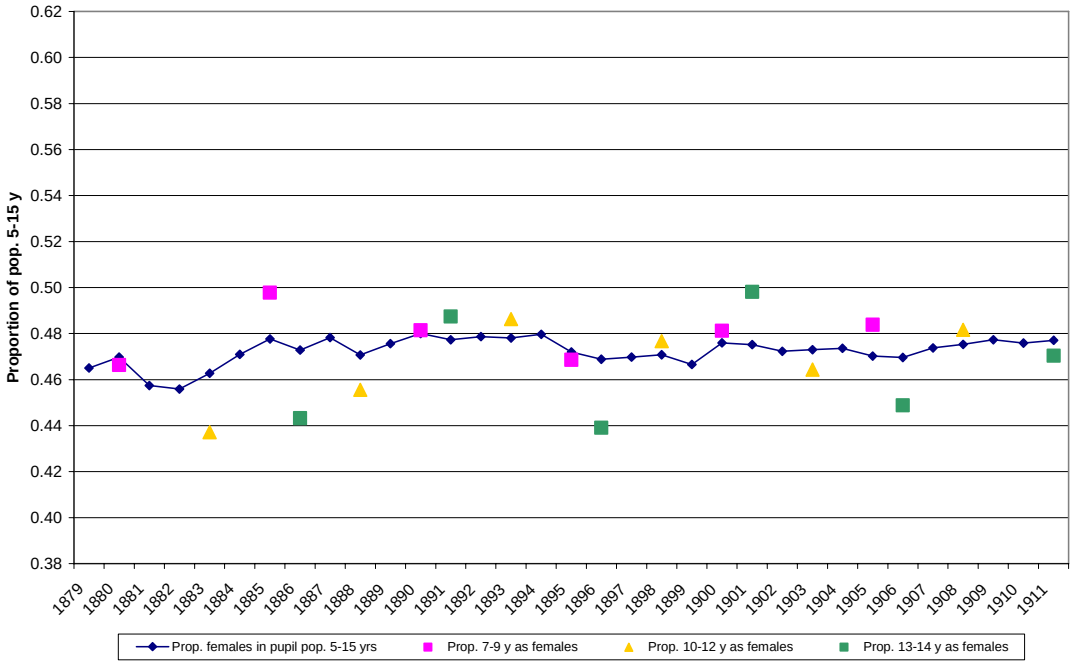


Fig. 12 – Hawke's Bay Education District: Proportion of females in the total pupil population aged 5-15 y, and the proportion of females in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 6; calculated from E-1 reports)

Table 5 – Hawke's Bay Education District: Proportion of males in the total pupil population aged 5-15 y and the proportion of males in various age groups for 6 constructed cohorts (see also Fig. 11; calculated from E-1 reports)

Year	Prop. males in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as males	Prop. 10-12 y pupils as males	Prop. 13-14 y pupils as males
1879	0.5350				
1880	0.5302	***Cohort 1***	**0.5337**		
1881	0.5426				
1882	0.5441				
1883	0.5373			**0.5629**	
1884	0.5290				
1885	0.5223	***Cohort 2***	**0.5022**		
1886	0.5271				**0.5568**
1887	0.5218				
1888	0.5293			**0.5444**	
1889	0.5243				
1890	0.5200	***Cohort 3***	**0.5185**		
1891	0.5227				**0.5126**
1892	0.5213				
1893	0.5219			**0.5137**	
1894	0.5203				
1895	0.5280	***Cohort 4***	**0.5314**		
1896	0.5312				**0.5609**
1897	0.5303				
1898	0.5292			**0.5233**	
1899	0.5334				
1900	0.5240	***Cohort 5***	**0.5198**		
1901	0.5248				**0.5019**
1902	0.5277				
1903	0.5270			**0.5356**	
1904	0.5264				
1905	0.5298	***Cohort 6***	**0.5162**		
1906	0.5304				**0.5512**
1907	0.5262				
1908	0.5247			**0.5184**	
1909	0.5227				
1910	0.5241				
1911	0.5229				**0.5296**

during the nineteenth century and this loss decreased during the late 1890s and the early years of the twentieth century to close to 10%.

The loss from Standard 4 to Standard 5 was greater, being around 30% during the nineteenth century and then decreasing markedly during the late 1890s and into the

Table 6 – Hawke's Bay Education District: Proportion of females in the total pupil population aged 5-15 y and the proportion of females in various age groups for 6 constructed cohorts (see also Fig. 12; calculated from E-1 reports)

Year	Prop. females in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as females	Prop. 10-12 y pupils as females	Prop. 13-14 y pupils as females
1879	0.4650				
1880	0.4698	***Cohort 1***	**0.4663**		
1881	0.4574				
1882	0.4559				
1883	0.4627			**0.4371**	
1884	0.4710				
1885	0.4777	***Cohort 2***	**0.4978**		
1886	0.4729				**0.4432**
1887	0.4782				
1888	0.4707			**0.4556**	
1889	0.4757				
1890	0.4800	***Cohort 3***	**0.4815**		
1891	0.4773				**0.4874**
1892	0.4787				
1893	0.4781			**0.4863**	
1894	0.4797				
1895	0.4720	***Cohort 4***	**0.4686**		
1896	0.4688				**0.4391**
1897	0.4697				
1898	0.4708			**0.4767**	
1899	0.4666				
1900	0.4760	***Cohort 5***	**0.4812**		
1901	0.4752				**0.4981**
1902	0.4723				
1903	0.4730			**0.4644**	
1904	0.4736				
1905	0.4702	***Cohort 6***	**0.4838**		
1906	0.4696				**0.4488**
1907	0.4738				
1908	0.4753			**0.4816**	
1909	0.4773				
1910	0.4759				
1911	0.4771				**0.4704**

new century. A trend worth noting is that during the 1890s the patterns of retention and loss from both Standard 3 to Standard 4 and from Standard 4 to Standard 5 are similar, indicating that whatever influenced pupils to remain at school or leave school during the 1890s applied to both Standard 4 and Standard 5 pupils. Retention in Standard 6 shows a different pattern.

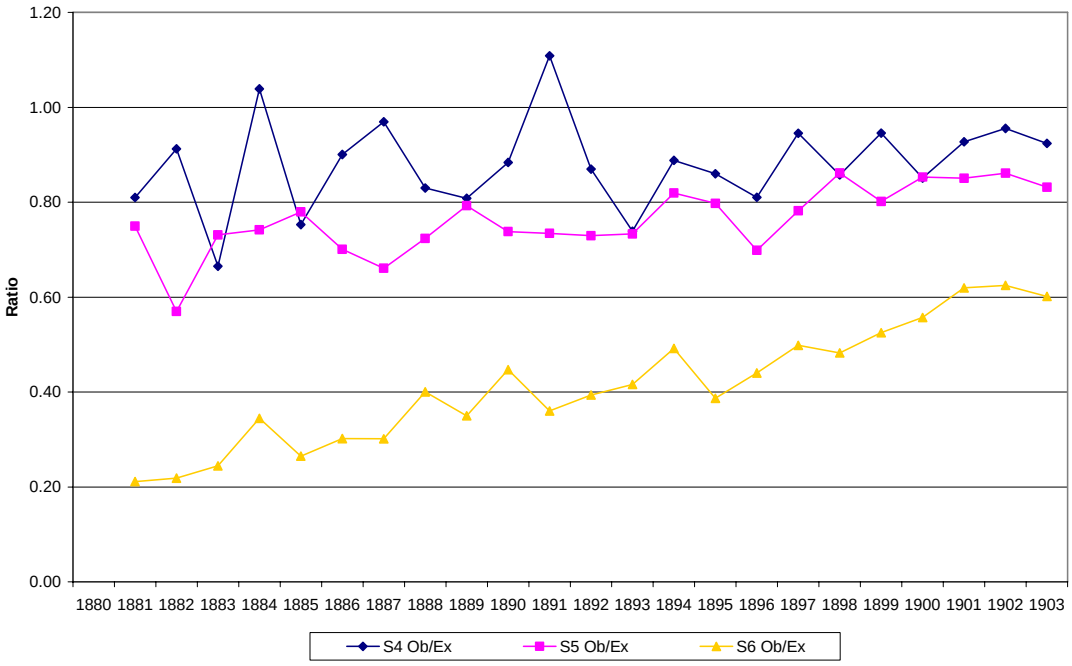


Fig. 13 – Hawke's Bay Education District: Ratio of observed pupil numbers to expected pupil numbers for Standards 4, 5 and 6 (Source: E-1 Reports)

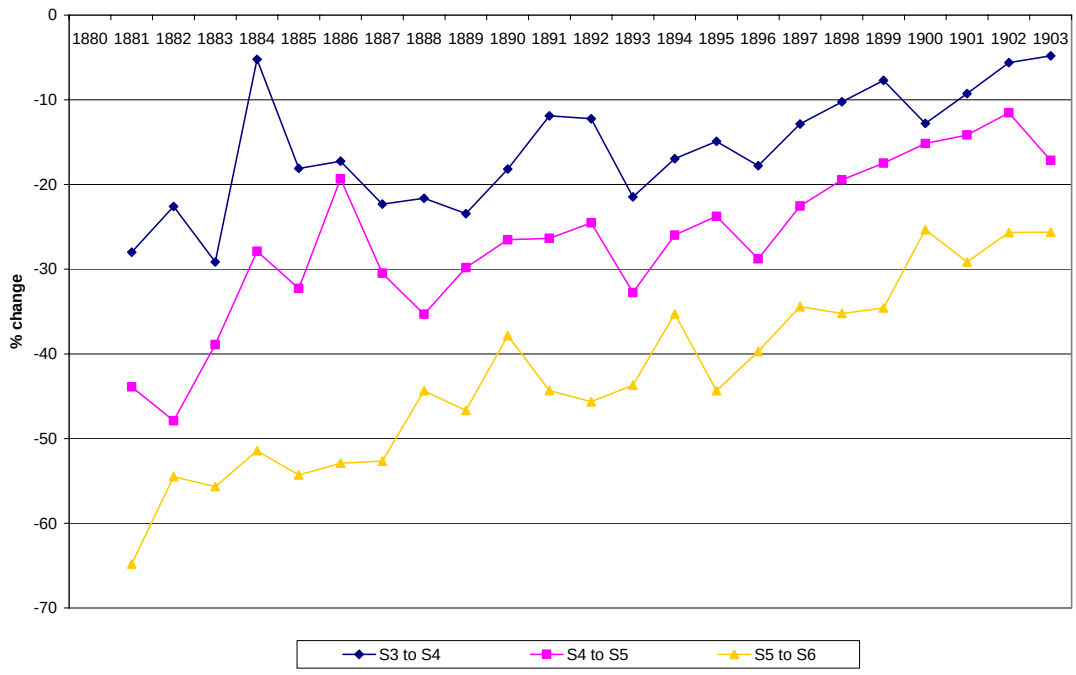


Fig. 14 – Hawke's Bay Education District: Percentage change between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6, for yearly cohorts starting in Standard 3 (calculated from E-1 reports)

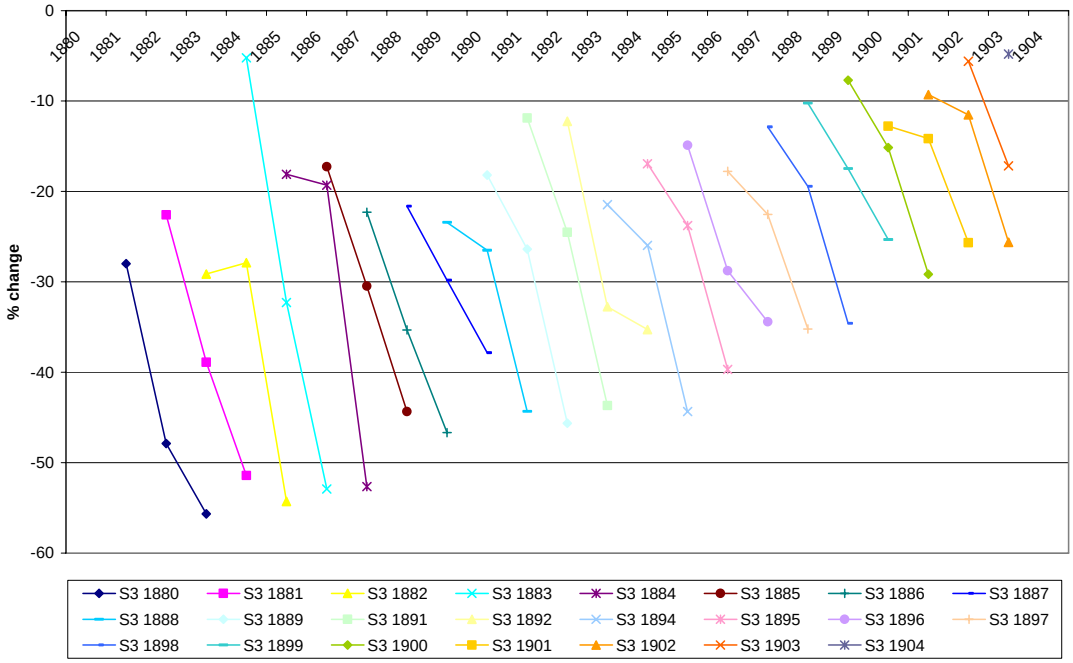


Fig. 15 – Hawke's Bay Education District: The percentage changes between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6. Each line represents a single constructed cohort starting in Standard 3; the length of the line between points indicates the percentage loss between successive Standards – the longer the line, the greater the loss (calculated from E-1 reports)

When individual Standard 3 cohorts are considered, there are changes in retention over time (Fig. 15). In the early years of the 1880s there was a loss of almost one third between Standard 3 and Standard 4 with another large loss between Standard 4 and Standard 5 and a slightly smaller loss from Standard 5 to Standard 6. During the middle years of the 1880s there was a much greater loss from Standard 5 to Standard 6 with a smaller loss from Standard 3 to Standard 4.

From the later years of the 1880s until after the turn of the century, with a few exceptions, the loss of pupils was greater from Standard 5 to Standard 6 than from Standard 4 to Standard 5. At the turn of the century there was still a loss of around 10% from Standard 3 to Standard 4 and during the 1890s the loss was between 10% and 20%.

Summary for Hawke's Bay Education District

The results reported for this Education District indicate that, although there were generally more males than females attending school throughout the period under

consideration, for pupils aged 13-14 y there were few differences between males and females. The only difference appears at the beginning of the 1900s when either more males aged 13-14 y remained at school or alternatively more females aged 13-14 y left school.

Throughout most of the 1890s and at the start of the new century, there was a greater loss of pupils between Standard 5 and Standard 6 than between other Standards suggesting that perhaps pupils did not see Standard 6 as being of particular use in their employment prospects. There was also still a significant loss of pupils between Standard 3 and Standard 4 of over 10% perhaps again indicating that employment in this Education District was not dependent on higher qualifications.

Taranaki

Age and gender

The 5-6 y/7-9 y ratios fluctuate for both genders. The decline in the 1880s may be related to the decreasing fertility of the population. The ratios remain below 0.5 during the 1890s perhaps indicating that children started school later than in some other Education Districts.

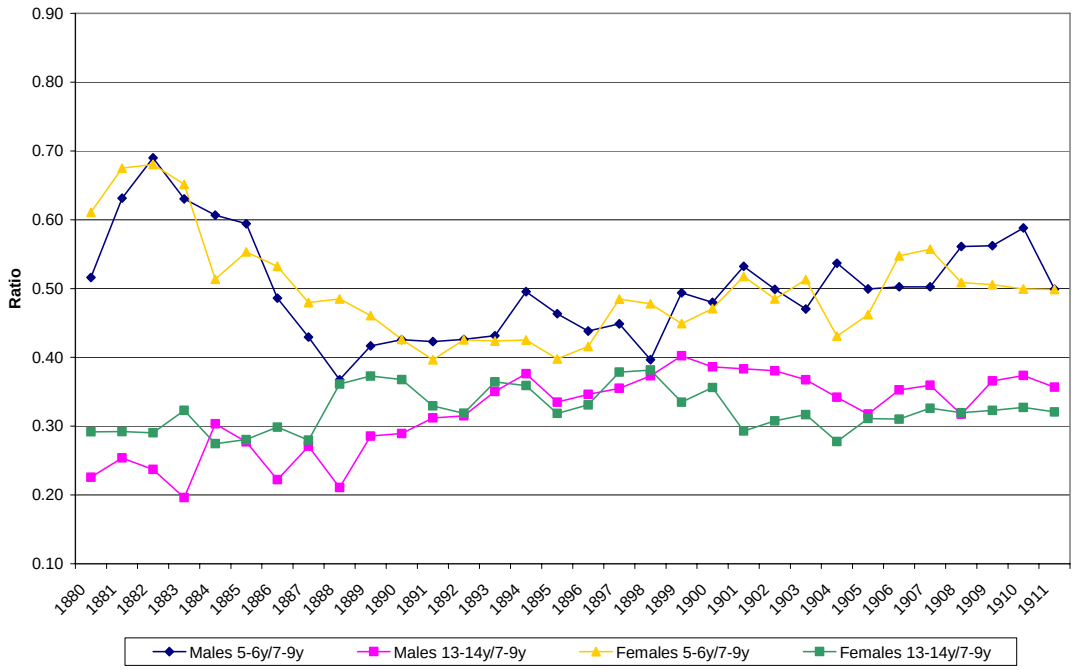


Fig. 16 – Taranaki Education District: Ratios for male and female pupils aged 5-6 y and 13-14 y in the numerator, and aged 7-9 y in the denominator, 1880–1911 (calculated from various E-1 Reports)

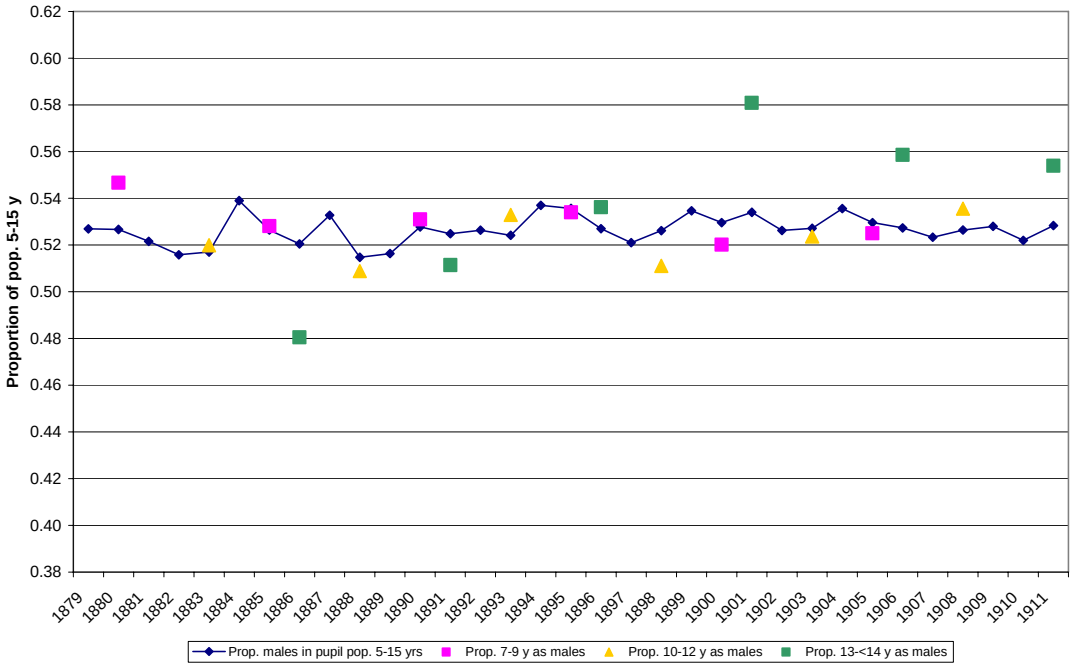


Fig. 17 – Taranaki Education District: Proportion of males in the total pupil population aged 5-15 y, and the proportion of males in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 7; calculated from E-1 reports)

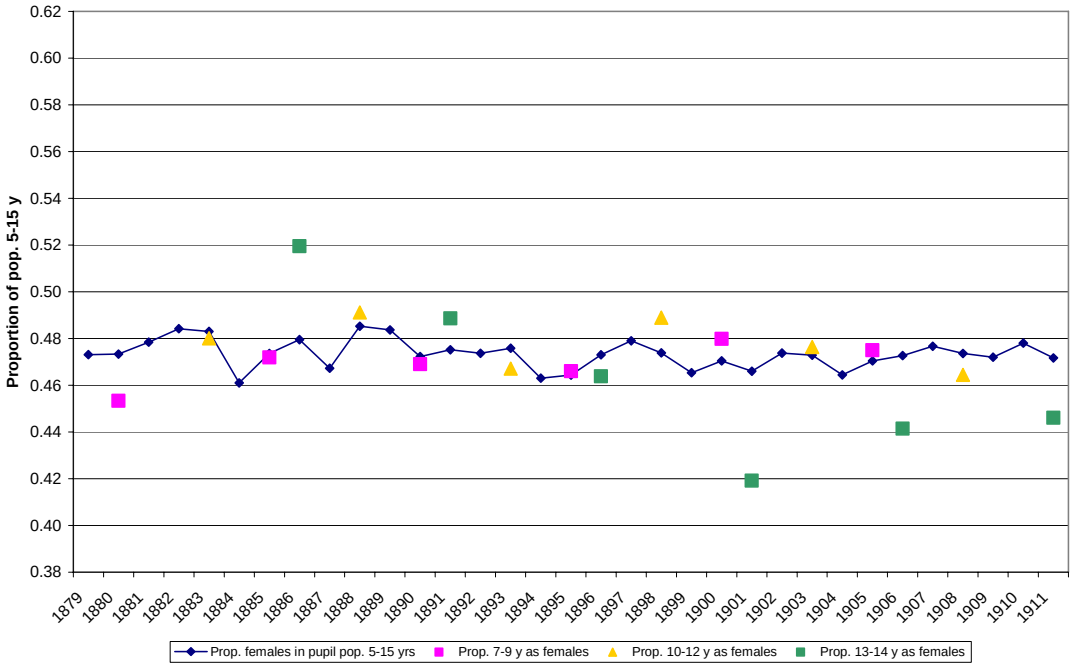


Fig. 18 – Taranaki Education District: Proportion of females in the total pupil population aged 5-15 y, and the proportion of females in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 8; calculated from E-1 reports)

Through most of the 1880s there were more females aged 13-14 y than males (Fig. 16). The ratio of 13-14 y/7-9 y fluctuated around the 30% level throughout the time period under consideration. During the 1880s and early 1890s the ratio for females was greater than that for males; during the 1890s the ratios for the two genders were similar and did not change greatly; from the turn of the century the ratio for males was greater than for females, and in the first decade of the new century the ratio for both males and females decreased. These results indicate that during the 1880s females were tending to stay at school longer than males. After the turn of the twentieth century, the reverse appears to have been the case, with fewer females in the 13-14 y age group remaining at school. This result is suggested because the ratio for the younger age group (5-6 y) to the same denominator (7-9 y) does not show the same gender differences.

The same trends can be seen when individual constructed age cohorts are followed. For males the proportion of the male 5-15 y population in the highest age group was below the overall proportion of males in the total pupil population for Cohorts 1 and 2, but for Cohorts 4, 5 and 6 the proportion of males in the 13-14 y age group was greater than the proportion of males in the total pupil population (Fig. 17). The reverse is, therefore, the case for females for the same cohorts (Fig. 18). These results can be interpreted as either males remained at school in Cohorts 4, 5, and 6 or females were leaving school before reaching this age group in these three cohorts.

Standards levels

From calculations of the ratio of observed to expected pupils in various Standards, it is clear that there was little change in the ratio for Standard 4 during much of the time under consideration: from the mid-1880s until the first years of the new century, the ratio of observed to expected pupils in Standard 4 was around 85%, rising slightly to about 90% from 1902 (Fig. 19).

The ratio of observed to expected Standard 5 pupils (Fig. 19) shows marked variability until the mid-1890s: during the late 1890s there is an increase in the Standard 5 ratio from about 65% to reach 80% by the turn of the century; the early years of the new century saw a further small increase in the Standard 5 ratio to about 85%.

Table 7 – Taranaki Education District: Proportion of males in the total pupil population aged 5-15 y and the proportion of males in various age groups for 6 constructed cohorts (see also Fig. 17; calculated from E-1 reports)

Year	Prop. males in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as males	Prop. 10-12 y pupils as males	Prop. 13-14 y pupils as males
1879	0.5269				
1880	0.5266	***Cohort 1***	**0.5467**		
1881	0.5216				
1882	0.5158				
1883	0.5170			**0.5199**	
1884	0.5390				
1885	0.5264	***Cohort 2***	**0.5281**		
1886	0.5205				**0.4805**
1887	0.5328				
1888	0.5148			**0.5088**	
1889	0.5164				
1890	0.5277	***Cohort 3***	**0.5310**		
1891	0.5248				**0.5114**
1892	0.5263				
1893	0.5241			**0.5329**	
1894	0.5370				
1895	0.5357	***Cohort 4***	**0.5340**		
1896	0.5270				**0.5362**
1897	0.5210				
1898	0.5262			**0.5111**	
1899	0.5347				
1900	0.5296	***Cohort 5***	**0.5202**		
1901	0.5340				**0.5808**
1902	0.5262				
1903	0.5271			**0.5237**	
1904	0.5356				
1905	0.5296	***Cohort 6***	**0.5250**		
1906	0.5273				**0.5586**
1907	0.5233				
1908	0.5264			**0.5356**	
1909	0.5280				
1910	0.5220				
1911	0.5283				**0.5539**

The ratio for observed to expected numbers for Standard 6 (Fig. 19) shows marked fluctuations throughout the nineteenth century, although from the 1890s there is a generally increasing trend. From the beginning of the new century the Standard 6 ratio remains around 70%.

Table 8 – Taranaki Education District: Proportion of females in the total pupil population aged 5-15 y and the proportion of females in various age groups for 6 constructed cohorts (see also Fig. 18; calculated from E-1 reports)

Year	Prop. females in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as females	Prop. 10-12 y pupils as females	Prop. 13-14 y pupils as females
1879	0.4731				
1880	0.4734	***Cohort 1***	**0.4533**		
1881	0.4784				
1882	0.4842				
1883	0.4830			**0.4801**	
1884	0.4610				
1885	0.4736	***Cohort 2***	**0.4719**		
1886	0.4795				**0.5195**
1887	0.4672				
1888	0.4852			**0.4912**	
1889	0.4836				
1890	0.4723	***Cohort 3***	**0.4690**		
1891	0.4752				**0.4886**
1892	0.4737				
1893	0.4759			**0.4671**	
1894	0.4630				
1895	0.4643	***Cohort 4***	**0.4660**		
1896	0.4730				**0.4638**
1897	0.4790				
1898	0.4738			**0.4889**	
1899	0.4653				
1900	0.4704	***Cohort 5***	**0.4798**		
1901	0.4660				**0.4192**
1902	0.4738				
1903	0.4729			**0.4763**	
1904	0.4644				
1905	0.4704	***Cohort 6***	**0.4750**		
1906	0.4727				**0.4414**
1907	0.4767				
1908	0.4736			**0.4644**	
1909	0.4720				
1910	0.4780				
1911	0.4717				**0.4461**

Fig. 20 shows that the loss from Standard 3 to Standard 4 in the 1880s decreased from about 45% to about 35% and then decreased sharply in the early 1890s. From the mid-1890s until the end of the century the decrease from Standard 3 to Standard 4 declined slowly to reach about 10% by 1899. This level was maintained for the first 3 years of the new century before reducing further to less than 10%.

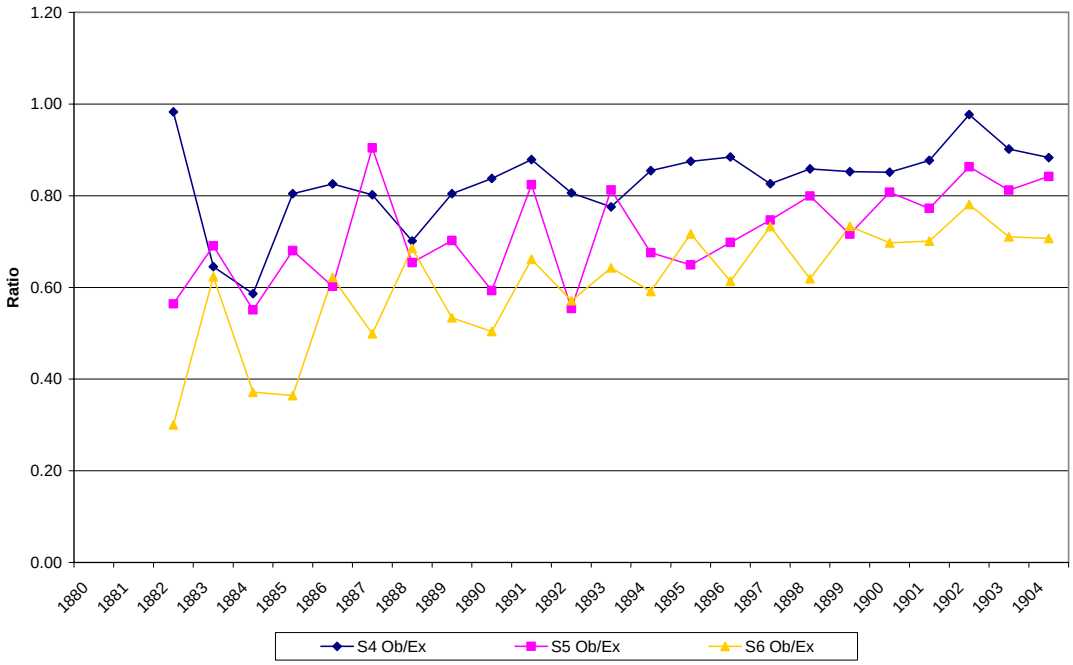


Fig. 19 – Taranaki Education District: Ratio of observed pupil numbers to expected pupil numbers for Standards 4, 5 and 6 (Source: E-1 Reports)

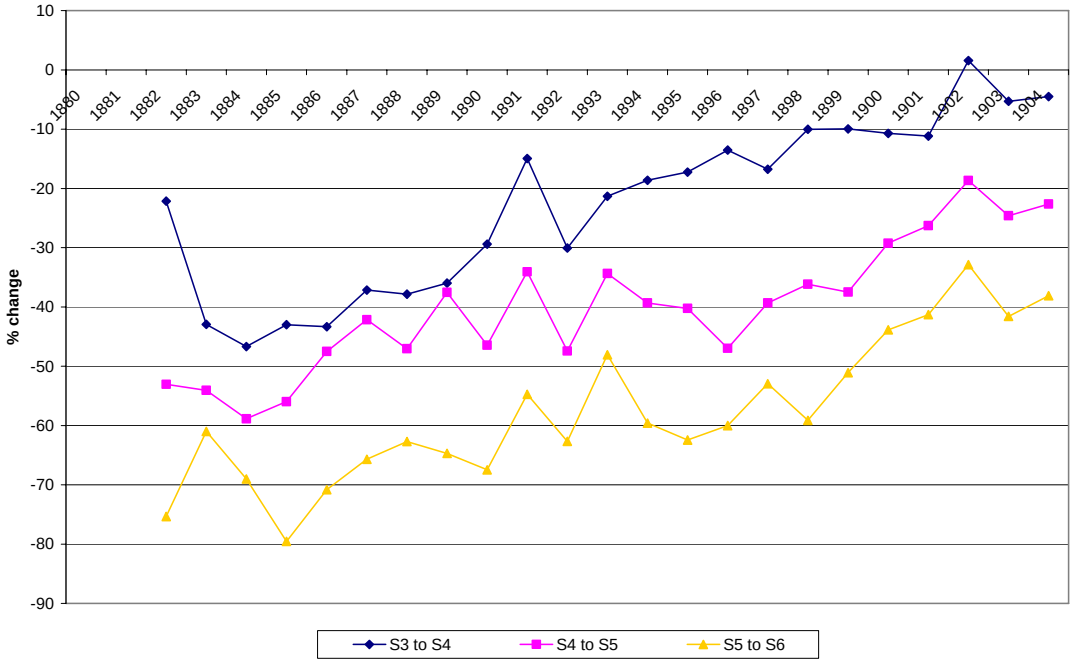


Fig. 20 –Taranaki Education District: Percentage change between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6, for yearly cohorts starting in Standard 3 (calculated from E-1 reports)

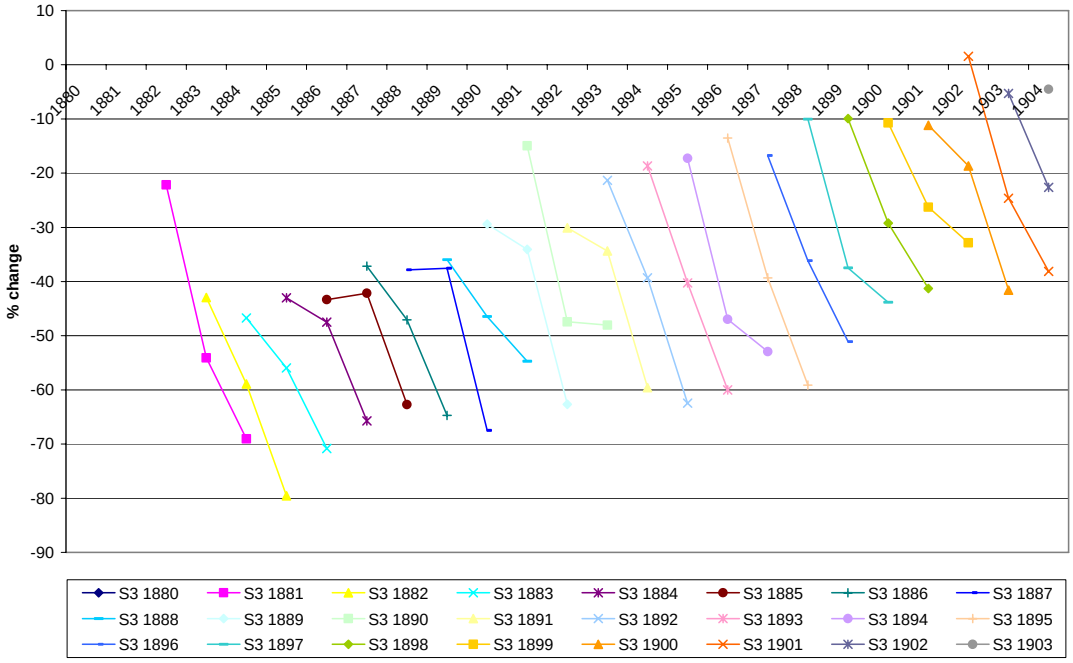


Fig. 21 – Taranaki Education District: The percentage changes between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6. Each line represents a single constructed cohort starting in Standard 3; the length of the line between points indicates the percentage loss between successive Standards – the longer the line, the greater the loss (calculated from E-1 reports)

The decrease in pupils from Standard 4 to Standard 5 showed an initial decrease and then a period of increase until the late 1880s (Fig. 20). From the late 1880s to the mid-1890s the change from Standard 4 to Standard 5 fluctuated annually, before settling to around 40% during the late 1890s. From the turn of the century there was a marked decline in the decrease from Standard 4 to Standard 5, peaking in 1902 at about 20% before declining slightly.

During the late nineteenth century the decrease from Standard 5 to Standard 6 shows a general trend towards a reduction in the decline of pupils, albeit with a number of fluctuations along the way (Fig. 20). From 1899 there is a marked steady reduction in the decrease from Standard 5 to Standard 6, peaking in 1902 at just over 30% before settling at around 40%.

From calculations of individual constructed Standards cohorts, there is a general trend throughout the nineteenth century for the decrease in pupils from Standard 3 to

Standard 4 to decrease (Fig. 21); from the turn of the century this decrease appears to be halted.

From the 1880s to the early 1890s the cohort decrease between Standard 4 and Standard 5 is generally less than the decrease from Standard 5 to Standard 6. This pattern changes from the early 1890s, with the decrease from Standard 4 to Standard 5 being generally greater than from Standard 5 to Standard 6. These results indicate that during the late 1890s pupils who reached Standard 4 were more likely to leave school than those who reached Standard 5.

Summary for Taranaki Education District

In summary, there are fewer 13-14 y females remaining at school than 13-14 y males. The loss of pupils from Standard 5 and 6 decreases markedly after 1899 perhaps related to the introduction of the new Standard 5 level of exemption in this year. In this Education District there is a general trend, with some exceptions, for pupils to leave after Standard 4 rather than after Standard 5.

There are changes in the patterns seen for both ages and Standards around the turn of the twentieth century which indicate the existence of some factors that influenced pupil attendance at school; these factors would need further investigation.

Wanganui

Age and gender

The ratio for males and females for 5-6 y/7-9 y show little difference between the genders. After the decline in the early 1880s for both genders, the ratios settle just below 0.5 and remain remarkably stable throughout the remainder of the time period under consideration.

The ratio of males 13-14 y/7-9 y shows a general increase from the mid-1880s (Fig. 22), rising from about 25% in 1885 to a plateau of about 37% at the beginning of the twentieth century, and then rising further to reach 40% by 1909. For females the trends are less steady with a rise in the ratio from about 22% in the mid-1880s to about 36% by the turn of the century; there is then a decrease in the ratio during the

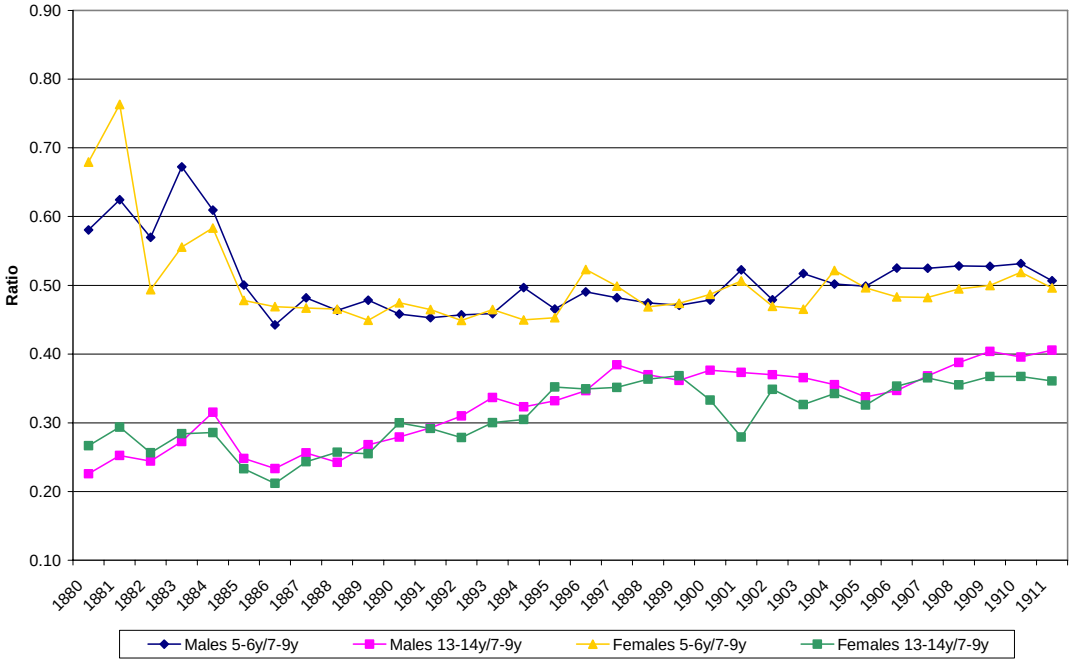


Fig. 22 – Wanganui Education District: Ratios for male and female pupils aged 5-6 y and 13-14 y in the numerator, and aged 7-9 y in the denominator, 1880–1911 (calculated from various E-1 Reports)

early 1900s followed a small rise to a plateau at about 34% and with only a small rise to about 35% by the end of the first decade of the twentieth century.

During much of the time from the mid-1880s until the first decade of the twentieth century, the ratio for females is, with a few exceptions, below that of males, indicating that generally there were fewer females than males in the 13-14 y age group.

Six individual age cohorts were synthetically constructed and compared for males and females separately. Cohorts 1, 4 and 6 for males show a higher than expected ratio of 13-14 y males (Fig. 23); numbers for the other age groups are about as expected, based on the proportion of males in the total pupil population.

Since the proportion of females is the converse of the proportion of males, in the highest age group for Cohorts 1, 4 and 6 the proportion of females in the 13-14 y age

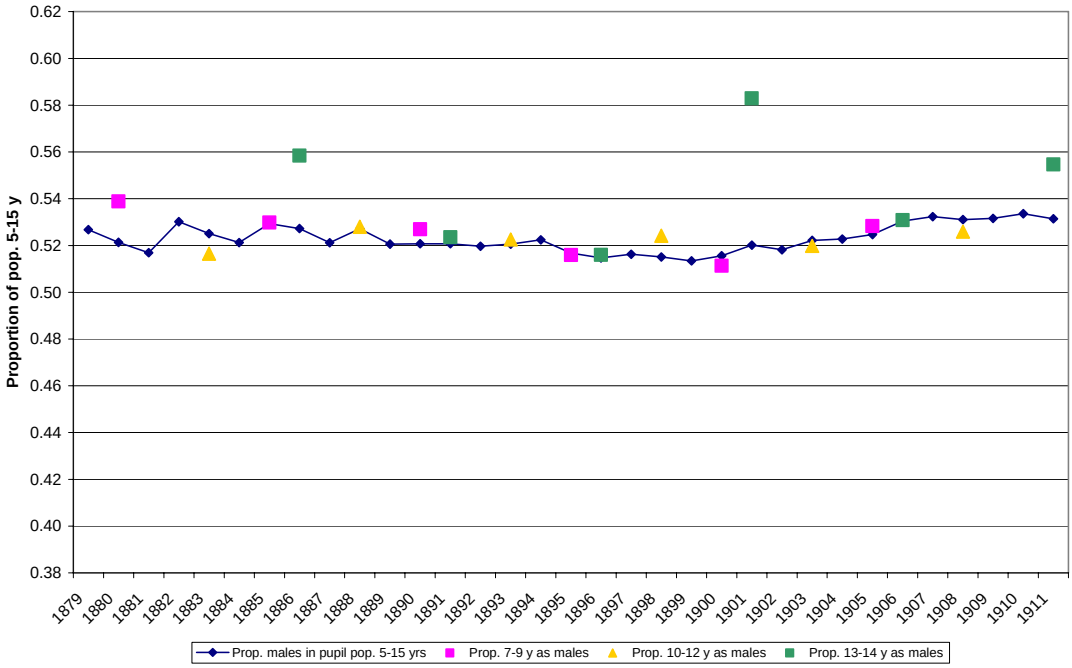


Fig. 23 – Wanganui Education District: Proportion of males in the total pupil population aged 5-15 y, and the proportion of males in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 9; calculated from E-1 reports)

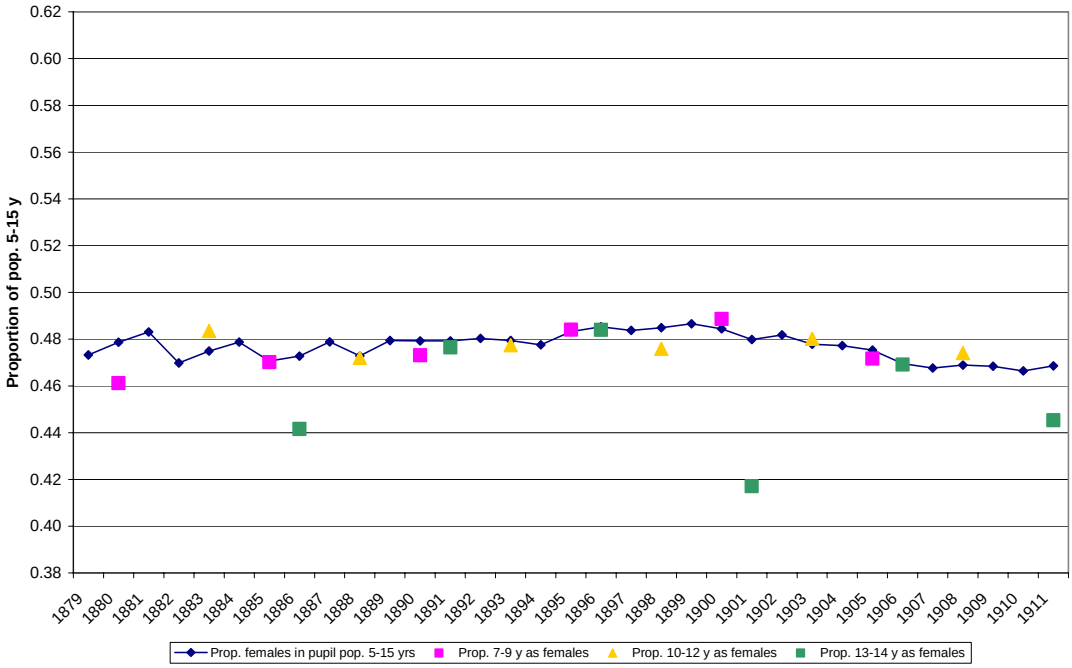


Fig. 24 – Wanganui Education District: Proportion of females in the total pupil population aged 5-15 y, and the proportion of females in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 10; calculated from E-1 reports)

Table 9 – Wanganui Education District: Proportion of males in the total pupil population aged 5-15 y and the proportion of males in various age groups for 6 constructed cohorts (see also Fig. 23; calculated from E-1 reports)

Year	Prop. males in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as males	Prop. 10-12 y pupils as males	Prop. 13-14 y pupils as males
1879	0.5267				
1880	0.5213	***Cohort 1***	**0.5388**		
1881	0.5170				
1882	0.5302				
1883	0.5251			**0.5165**	
1884	0.5212				
1885	0.5294	***Cohort 2***	**0.5298**		
1886	0.5272				**0.5584**
1887	0.5212				
1888	0.5271			**0.5280**	
1889	0.5206				
1890	0.5207	***Cohort 3***	**0.5269**		
1891	0.5207				**0.5235**
1892	0.5196				
1893	0.5206			**0.5226**	
1894	0.5224				
1895	0.5168	***Cohort 4***	**0.5159**		
1896	0.5147				**0.5160**
1897	0.5163				
1898	0.5151			**0.5242**	
1899	0.5134				
1900	0.5156	***Cohort 5***	**0.5113**		
1901	0.5202				**0.5829**
1902	0.5181				
1903	0.5222			**0.5198**	
1904	0.5228				
1905	0.5247	***Cohort 6***	**0.5283**		
1906	0.5304				**0.5308**
1907	0.5323				
1908	0.5311			**0.5259**	
1909	0.5316				
1910	0.5336				
1911	0.5314				**0.5547**

group is well below what would be expected based on the proportion of females in the total pupil population (Fig. 24). It cannot be stated whether the males in the 13-14 y age group remained at school or whether the females in this age group selectively left school.

Table 10 – Wanganui Education District: Proportion of females in the total pupil population aged 5-15 y and the proportion of females in various age groups for 6 constructed cohorts (see also Fig. 24; calculated from E-1 reports)

Year	Prop. females in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as females	Prop. 10-12 y pupils as females	Prop. 13-14 y pupils as females
1879	0.4733				
1880	0.4787	***Cohort 1***	**0.4612**		
1881	0.4830				
1882	0.4698				
1883	0.4749			**0.4835**	
1884	0.4788				
1885	0.4706	***Cohort 2***	**0.4702**		
1886	0.4728				**0.4416**
1887	0.4788				
1888	0.4729			**0.4720**	
1889	0.4794				
1890	0.4793	***Cohort 3***	**0.4731**		
1891	0.4793				**0.4765**
1892	0.4804				
1893	0.4794			**0.4774**	
1894	0.4776				
1895	0.4832	***Cohort 4***	**0.4841**		
1896	0.4853				**0.4840**
1897	0.4837				
1898	0.4849			**0.4758**	
1899	0.4866				
1900	0.4844	***Cohort 5***	**0.4887**		
1901	0.4798				**0.4171**
1902	0.4819				
1903	0.4778			**0.4802**	
1904	0.4772				
1905	0.4753	***Cohort 6***	**0.4717**		
1906	0.4696				**0.4692**
1907	0.4677				
1908	0.4689			**0.4741**	
1909	0.4684				
1910	0.4664				
1911	0.4686				**0.4453**

Standards levels

Through the nineteenth century until the mid-1890s there is little change in the ratios of observed to expected pupil number in all three Standards studied (Fig. 25). The

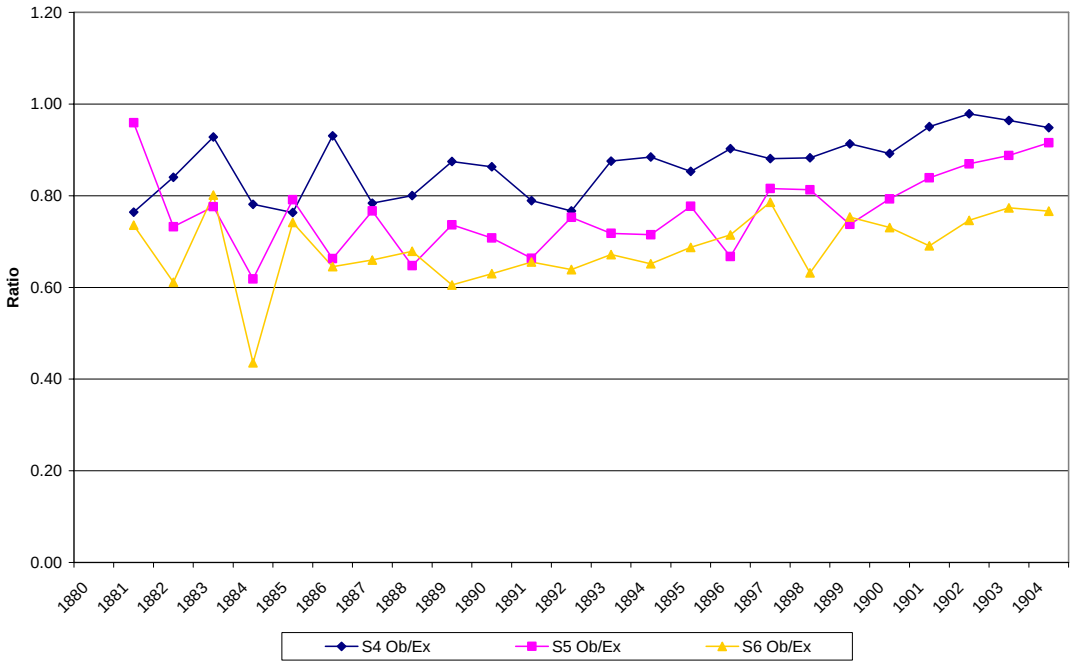


Fig. 25 – Wanganui Education District: Ratio of observed pupil numbers to expected pupil numbers for Standards 4, 5 and 6 (Source: E-1 Reports)

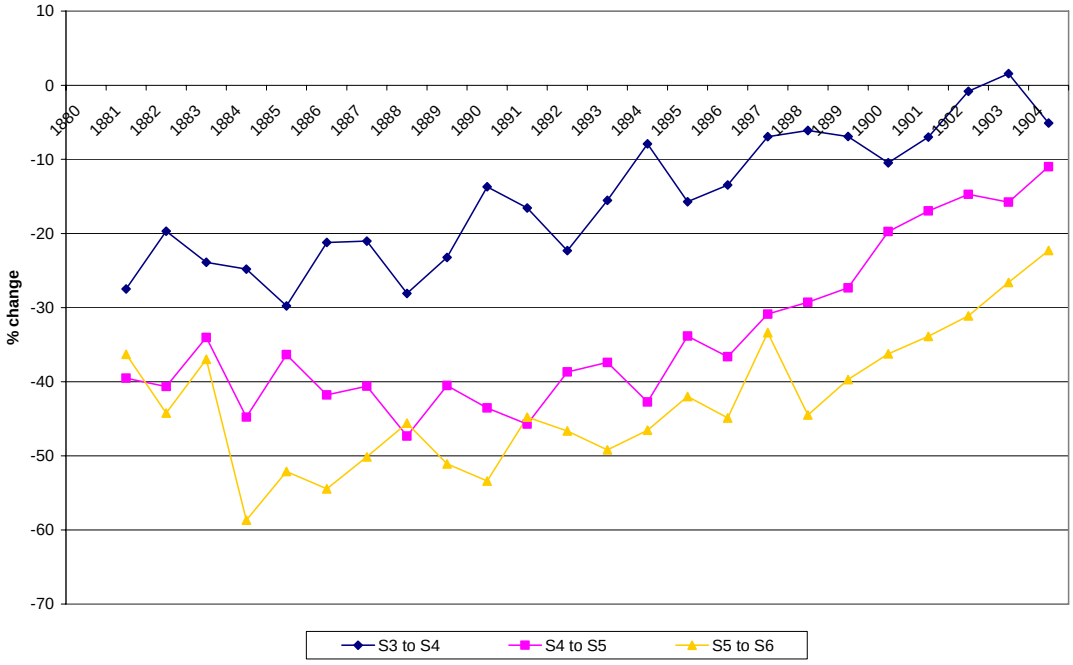


Fig. 26 – Wanganui Education District: Percentage change between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6, for yearly cohorts starting in Standard 3 (calculated from E-1 reports)

observed to expected ratio for Standard 4 is close to 90%; the ratio for Standard 5 is about 70%; and the ratio for Standard 6 is about 65%.

From the mid-1890s there is a slow but steady increase in the ratio for Standard 4, rising to close to 10% by the early years of the twentieth century. For Standard 5, there is a more marked rise from the last year of the nineteenth century, the ratio rising from about 72% in 1899 to about 92% by 1904.

For Standard 6 there is no clear pattern of increase, although from the mid-1890s to the middle of the first decade of the twentieth century the ratio for Standard 6 increased slightly from about 70% to about 77%.

The trends for the three Standards can be more clearly seen in Fig. 26, where the % change between successive Standards can be tracked. This graph shows the uneven rise in the Standard 4 line which, by the turn of the century, indicates that about 10% of the expected pupils in Standard 4 were not present. However, by 1902 the number of pupils in Standard 4 was at the expected level.

For Standard 5, the loss form the previous Standard compared to the expected number of pupils was just over 40%, but this loss decreased markedly from the mid-1890s, rising from a loss of over 40% to a loss of only 15% by 1902 with a further reduction to just over 10% by 1904. This graph indicates that, from the late 1890s, pupils were remaining at school into Standard 5 rather than leaving school after Standard 4. This is likely to be related to the increase in the level of exemption from Standard 4 to Standard 5 in 1899.

When the losses for individual Standard cohorts are studied, there is a still a general pattern of pupils leaving school after Standard 4 (Fig. 27); the length of the line from the first point of each cohort to the second point is generally longer than the length of the line from the second to the third point, although over the whole time period there are a number of exceptions. There is a small change around the turn of the century with slightly more pupils leaving after Standard 5 than after Standard 4, again probably related to the exemption level changes.

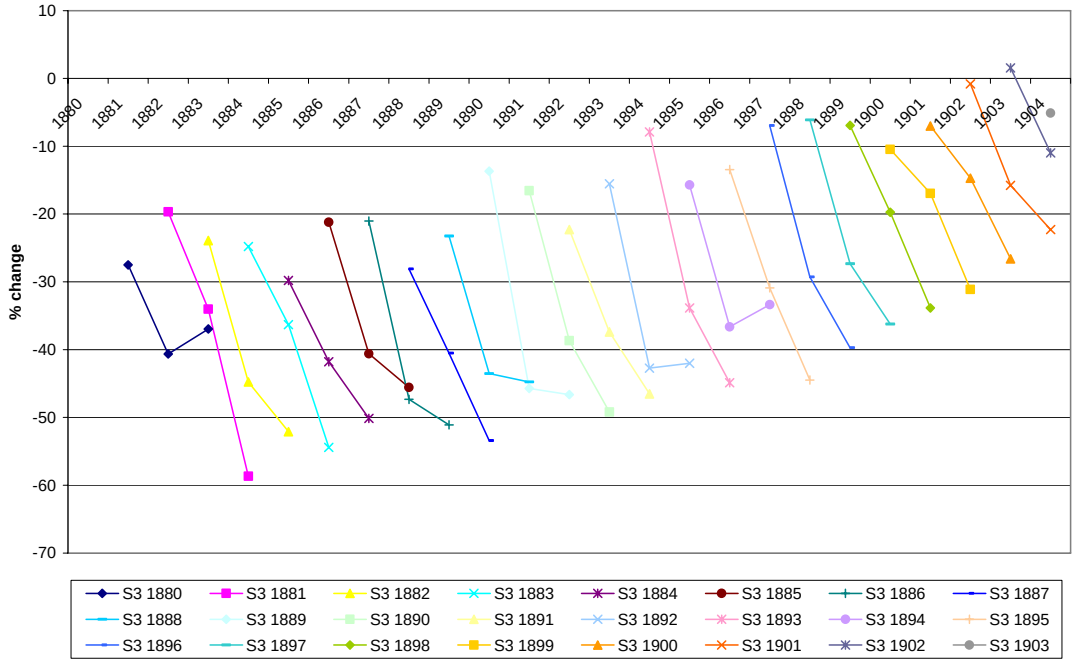


Fig. 27 – Wanganui Education District: The percentage changes between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6. Each line represents a single constructed cohort starting in Standard 3; the length of the line between points indicates the percentage loss between successive Standards – the longer the line, the greater the loss (calculated from E-1 reports)

Summary for Wanganui Education District

In summary, for the Wanganui Education District there were generally more males in the 13-14 y age group than there were females, perhaps because females left school within this age group. The loss of pupils at Standard 4 decreased slowly during the last decade of the nineteenth century and into the twentieth century. For Standards 5 and 6 there was a decrease in the loss of pupils, but only near the end of the nineteenth century with the loss from Standard 5 decreasing from about 1896 and the decrease from Standard 6 decreasing from about 1898. From individual Standard cohorts, it seems clear that in general, pupils usually left after reaching Standard 4 rather than remaining to Standard 5. This pattern changed slightly at the turn of the century with pupils now remaining to Standard 5 and then leaving, probably as a result of the rise in the level of exemption.

Wellington

Age and gender

The 5-6 y/7-9 y gender ratios show little difference between the genders. The decline in the 1880s is similar to that seen in other Education Districts. From the late 1880s the ratios settle at around 0.5 and remain at this level for the remainder of the time period under consideration.

The ratio of both males and females shows an increase from the mid-1880s to the turn of the century; the increase is steadier for males than for females with the trend for females showing some troughs and plateaus (Fig. 28). Before the mid-1880s the ratio for females is higher than that for males, but from the mid-1880s to the turn of the century the ratio for females is slightly lower than that for males, perhaps indicating that females were leaving school at an earlier age than males.

In 1904 the ratio for males rose markedly and then fell away in 1906, followed by a plateau. For females at this time there was a steady decrease in the ratio, indicating that females were leaving school at an earlier age than males during the first decade of

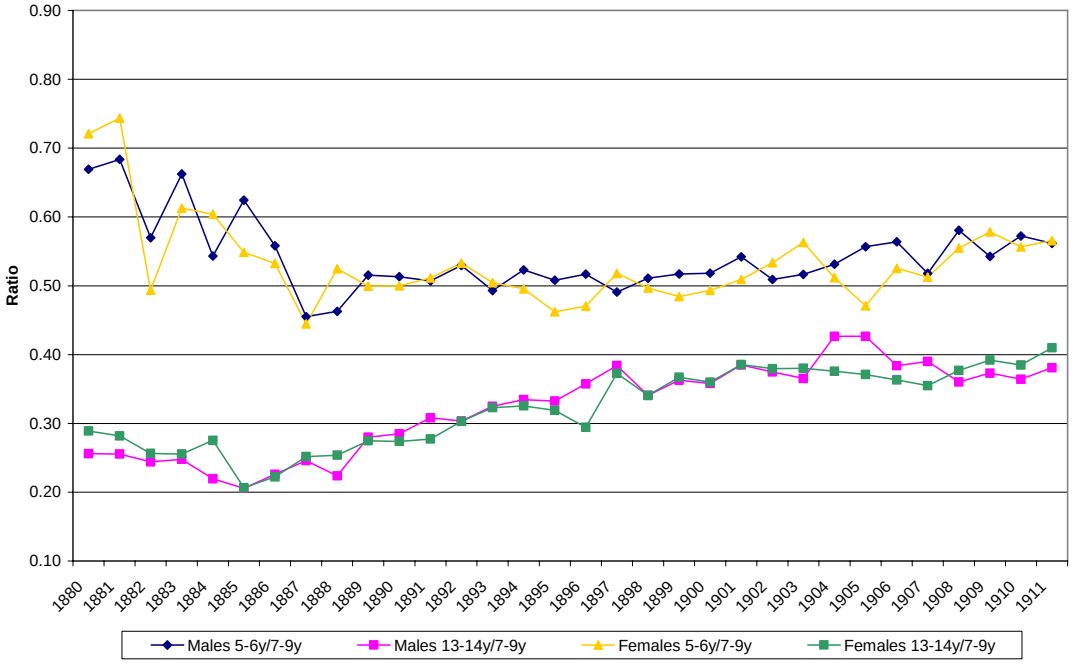


Fig. 28 – Wellington Education District: Ratios for male and female pupils aged 5-6 y and 13-14 y in the numerator, and aged 7-9 y in the denominator, 1880–1911 (calculated from various E-1 Reports)

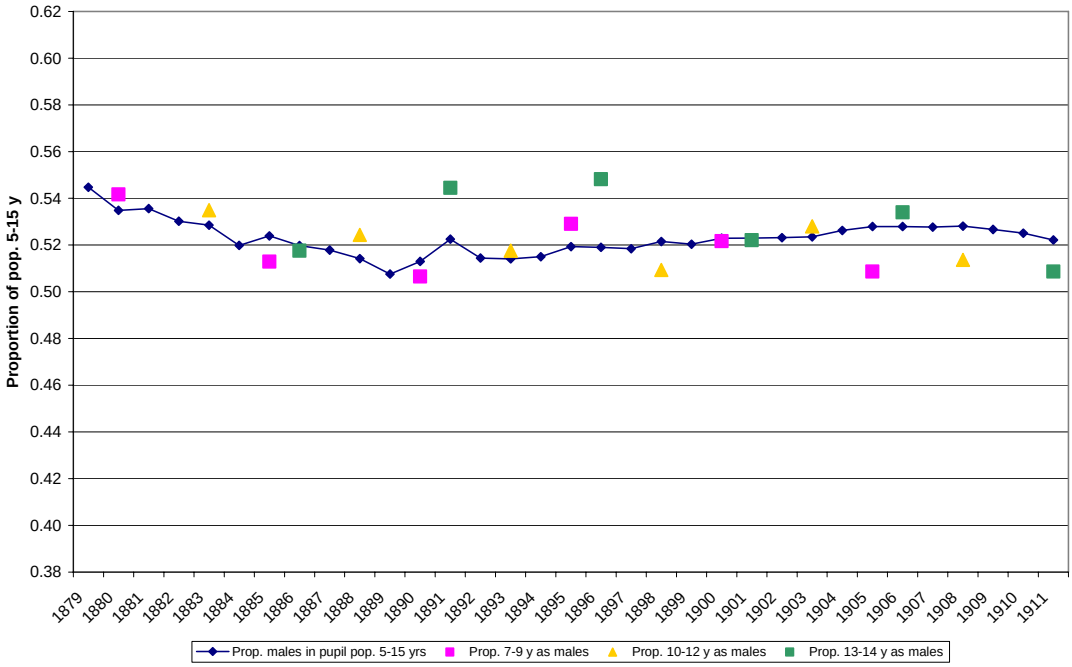


Fig. 29 – Wellington Education District: Proportion of males in the total pupil population aged 5-15 y, and the proportion of males in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 11; calculated from E-1 reports)

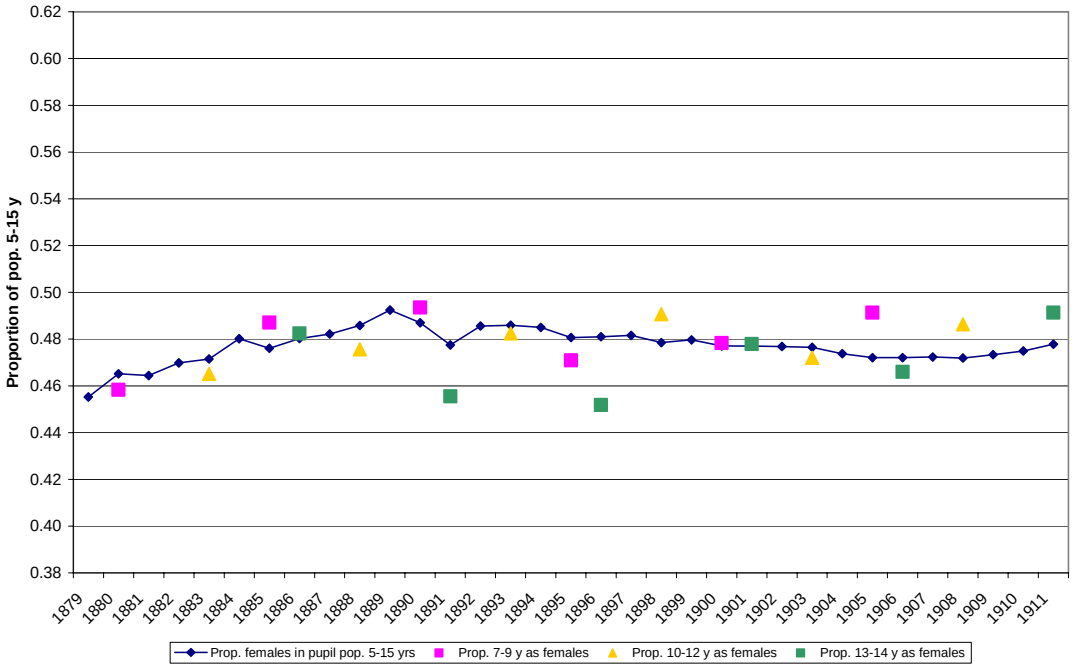


Fig. 30 – Wellington Education District: Proportion of females in the total pupil population aged 5-15 y, and the proportion of females in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 12; calculated from E-1 reports)

Table 11 – Wellington Education District: Proportion of males in the total pupil population aged 5-15 y and the proportion of males in various age groups for 6 constructed cohorts (see also Fig. 29; calculated from E-1 reports)

Year	Prop. males in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as males	Prop. 10-12 y pupils as males	Prop. 13-14 y pupils as males
1879	0.5447				
1880	0.5348	***Cohort 1***	**0.5417**		
1881	0.5356				
1882	0.5302				
1883	0.5285			**0.5349**	
1884	0.5198				
1885	0.5239	***Cohort 2***	**0.5129**		
1886	0.5198				**0.5176**
1887	0.5179				
1888	0.5142			**0.5243**	
1889	0.5076				
1890	0.5130	***Cohort 3***	**0.5065**		
1891	0.5225				**0.5445**
1892	0.5144				
1893	0.5141			**0.5176**	
1894	0.5150				
1895	0.5193	***Cohort 4***	**0.5291**		
1896	0.5190				**0.5482**
1897	0.5184				
1898	0.5215			**0.5093**	
1899	0.5203				
1900	0.5229	***Cohort 5***	**0.5217**		
1901	0.5230				**0.5221**
1902	0.5232				
1903	0.5235			**0.5280**	
1904	0.5263				
1905	0.5279	***Cohort 6***	**0.5087**		
1906	0.5279				**0.5340**
1907	0.5277				
1908	0.5281			**0.5137**	
1909	0.5267				
1910	0.5251				
1911	0.5222				**0.5087**

the twentieth century. From 1908 the ratio for females was once again higher than for males, indicating that males were now leaving in slightly greater numbers than females at this age group.

Table 12 – Wellington Education District: Proportion of females in the total pupil population aged 5-15 y and the proportion of females in various age groups for 6 constructed cohorts (see also Fig. 30; calculated from E-1 reports)

Year	Prop. females in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as females	Prop. 10-12 y pupils as females	Prop. 13-14 y pupils as females
1879	0.4553				
1880	0.4652	***Cohort 1***	**0.4583**		
1881	0.4644				
1882	0.4698				
1883	0.4715			**0.4651**	
1884	0.4802				
1885	0.4761	***Cohort 2***	**0.4871**		
1886	0.4802				**0.4824**
1887	0.4821				
1888	0.4858			**0.4757**	
1889	0.4924				
1890	0.4870	***Cohort 3***	**0.4935**		
1891	0.4775				**0.4555**
1892	0.4856				
1893	0.4859			**0.4824**	
1894	0.4850				
1895	0.4807	***Cohort 4***	**0.4709**		
1896	0.4810				**0.4518**
1897	0.4816				
1898	0.4785			**0.4907**	
1899	0.4797				
1900	0.4771	***Cohort 5***	**0.4783**		
1901	0.4770				**0.4779**
1902	0.4768				
1903	0.4765			**0.4720**	
1904	0.4737				
1905	0.4721	***Cohort 6***	**0.4913**		
1906	0.4721				**0.4660**
1907	0.4723				
1908	0.4719			**0.4863**	
1909	0.4733				
1910	0.4749				
1911	0.4778				**0.4913**

Individual male age cohorts show differences over time. During the late 1880s and early 1890s the proportion of males in the 13-14 y age group was much greater than the proportion of females (Cohorts 2 and 3; Figs 29 and 30); Cohort 6 shows a different pattern again with few males of all age groups in the population. This could have resulted because more girls of all ages were attending school or because there

was a drop in the number of males attending school. However, note how the proportion of females in the total pupil population 5-15 y decreased from about 48.5% in the mid-1890s to a low of about 47.2% in 1905, rising again from 1908 to 1911 when it had reached 47.8%. These results could equally be interpreted as indicating that more males were attending school.

Standards levels

The ratio for observed number of pupils in each Standard compared to the expected number shows remarkably little change over the 25 years under consideration (Fig. 31). The ratio for Standard 4 rises in the mid-1880s to over 90% and remains over 90% for the rest of the time period. For Standard 5, there is a slight increase in the ration observed to expected from about 80% during the 1880s to about 85% during the 1890s and about 90% from around the turn of the century. For Standard 6 there is greater variability during the early 1880s, followed by a period of some ten years with remarkably little change except for a small rise and then a decrease in the late 1880s. The ratio for Standard 6 remained at about 70% until the late 1890s when the ratio increased to about 80% but fell back slightly after the turn of the century to below 80%. The actual change between successive Standards calculated as a percentage

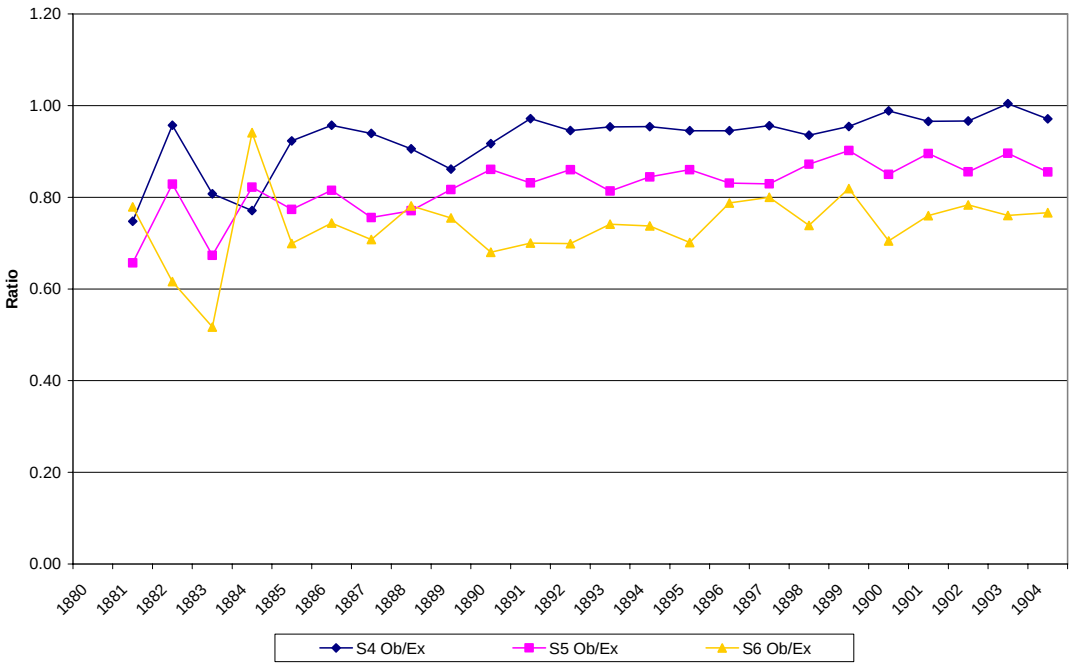


Fig. 31 – Wellington Education District: Ratio of observed pupil numbers to expected pupil numbers for Standards 4, 5 and 6 (Source: E-1 Reports)

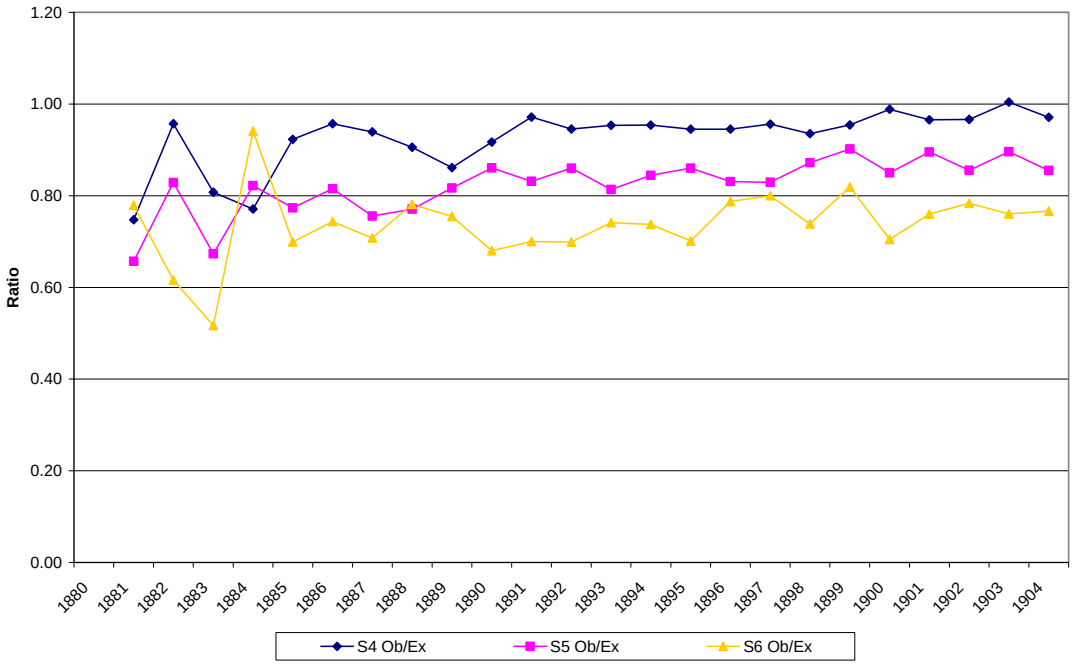


Fig. 32 – Wellington Education District: Ratio of observed pupil numbers to expected pupil numbers for Standards 4, 5 and 6 (Source: E-1 Reports)

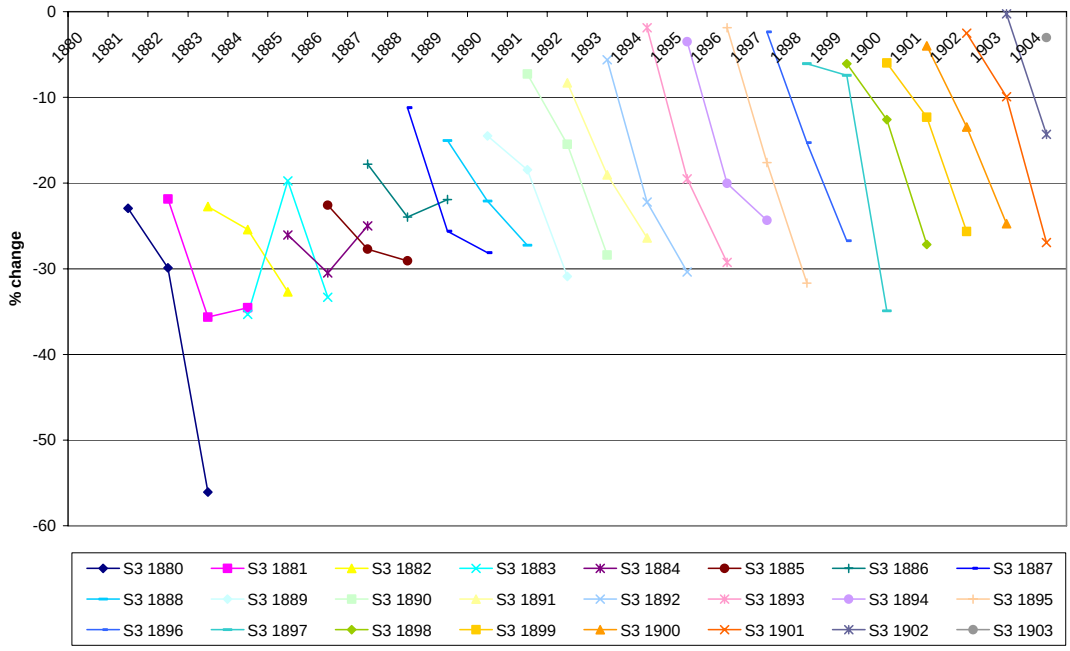


Fig. 33 – Wellington Education District: The percentage changes between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6. Each line represents a single constructed cohort starting in Standard 3; the length of the line between points indicates the percentage loss between successive Standards – the longer the line, the greater the loss (calculated from E-1 reports)

shows more trends (Fig. 32). For Standard 4, the change during the nineteenth century shows a steady decrease in the loss at this level, rising from a loss in 1884 of about 35% to a loss in 1894 of only about 3%. From this time on, the loss for this Standard was always 5% or less.

For Standard 5, there was an initial sharp decrease in loss in the early 1880s followed by an increased drop in1886. After this until the early 1890s there was a reasonably steady decrease in the loss at Standard 5, followed by an increase in the loss from 1892 to 1894. During the late 1890s there was once again a decrease in the loss from Standard 5, peaking at a loss of only 7% in 1899 before increasing again to more than 10% after the turn of the century.

For Standard 6 there was an initial increase in loss in the early 1880s followed by a sharp decrease in loss in 1884. The remainder of the 1880s saw a fluctuating trend but a general decrease in the loss from Standard 6, peaking at a loss of just over 20% in 1889. After this time, there were fluctuations in the loss from Standard 6 but there was no clear trend towards a decrease in the Standard 6 losses, which remained at about 25% throughout this time.

When individual Standard cohorts are studied, there is no clear pattern during the 1880s (Fig. 33). During the early 1890s the losses were greater after Standard 5 than after Standard 4, but during the late 1890s this trend was reversed with greater losses after Standard 4 rather than after Standard 5. After the turn of the century the losses were greater after Standard 5 rather than after Standard 4.

Summary for Wellington Education District

For the Wellington Education District there are no consistent gender differences for the age groups studied. There is a rather steep rise in the ratio of the 13-14 y age group from the mid-1880s to the mid-1890s for both genders. The reason for this is not discernable from the present study, but could relate to the decrease in fertility of the New Zealand population from the late 1870s. This possible relationship would need further investigation.

For the derived age cohorts, the proportion of males in the 13-14 y age group is higher (by over 2%) than that in the proportion of males in the total school population in the 1890s, and similarly the proportion of females in this age group at this time is below the proportion of females in the school population.

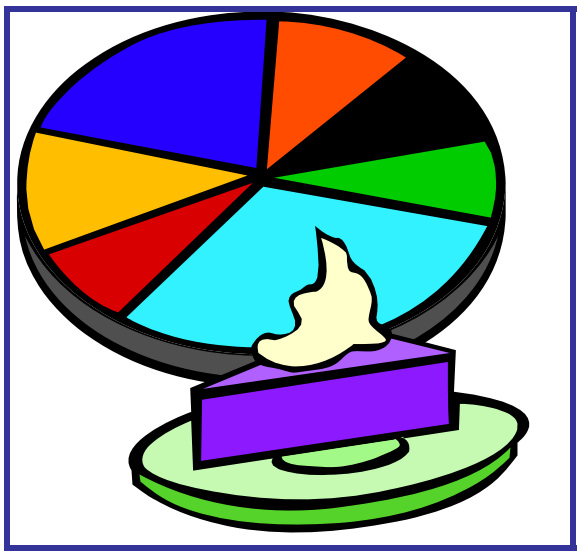
From the early 1890s the loss of pupils between Standard 3 and Standard 4 had reached about 8% and remained at this level until the first decade of the twentieth century. Losses between successive Standards were variable up to the 1890s, but until 1892 the losses between Standard 5 and Standard 6 were generally greater than those between Standard 4 and Standard 5. Then, until 1898 the losses were greater between Standard 4 and Standard 5 than between Standard 5 and Standard 6. After 1898 the pattern was reversed with losses being greater at the higher levels between Standard 5 and Standard 6.

Once again in this Education District there are changes in the patterns of school attendance at the end of the nineteenth century which need to be explained.

Chapter 4

Results by Education District

– South Island



Chapter 4 Results by Education District – South Island

Marlborough

Age and gender

While there are marked fluctuations for both males and females for the ratio 5-6 y/7-9 y, the overall pattern is the same as found in other Education Districts: an initial decline in the ratio for both genders during the 1880s, followed by a more stable pattern with both ratios being close to 0.5.

During the late nineteenth century there was a rise in the ratio of 13-14 y/7-9 y pupils, both males and females, especially during the late 1880s and early 1890s (Fig. 34). However, the pattern is not clear especially during the late 1890s. After the turn of the century the ratio 13-14 y/7-9 y decreased slightly, especially for females. During the decade from the mid-1880s to the mid-1890s the ratio for females was lower than that for males; from the mid-1890s to just after the turn of the century the ratio for females was slightly higher than for males, but the female ratio dropped below that for males again after 1900 and remained below the male ratio until 1911.

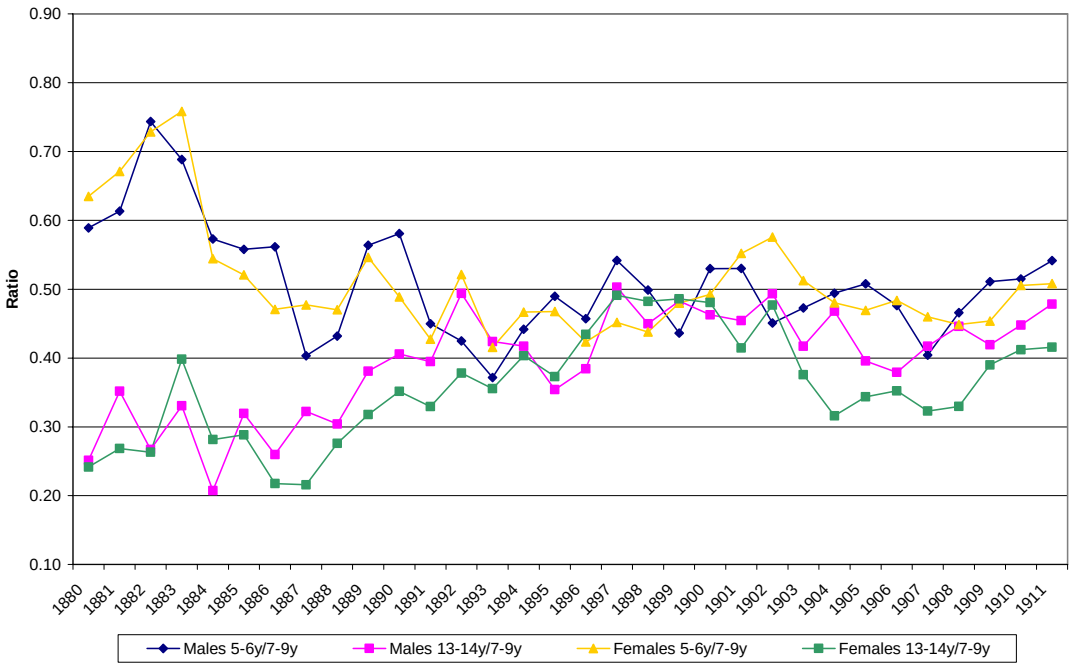


Fig. 34 – Marlborough Education District: Ratios for male and female pupils aged 5-6 y and 13-14 y in the numerator, and aged 7-9 y in the denominator, 1880–1911 (calculated from various E-1 Reports)

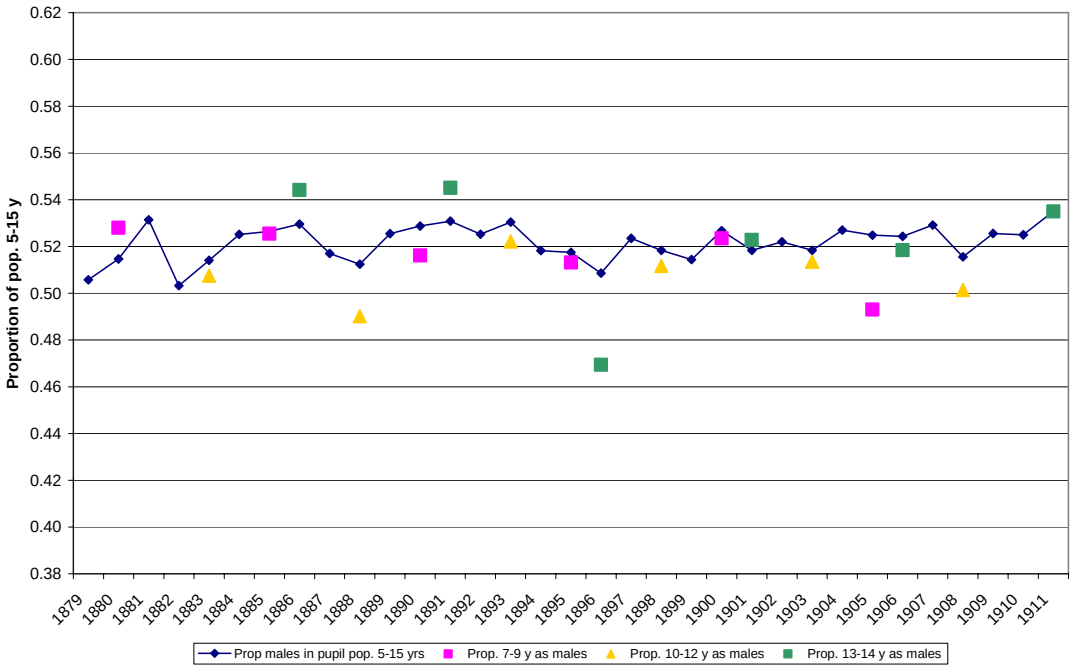


Fig. 35 – Marlborough Education District: Proportion of males in the total pupil population aged 5-15 y, and the proportion of males in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 13; calculated from E-1 reports)

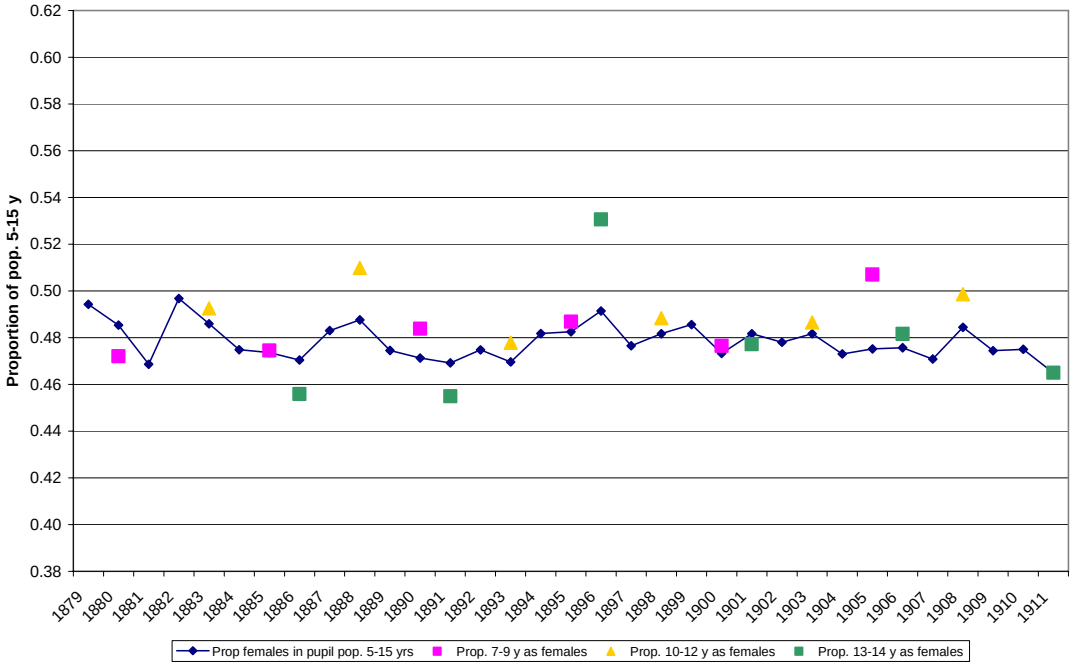


Fig. 36 – Marlborough Education District: Proportion of females in the total pupil population aged 5-15 y, and the proportion of females in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 14; calculated from E-1 reports)

Table 13 – Marlborough Education District: Proportion of males in the total pupil population aged 5-15 y and the proportion of males in various age groups for 6 constructed cohorts (see also Fig. 35; calculated from E-1 reports)

Year	Prop males in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as males	Prop. 10-12 y pupils as males	Prop. 13-14 y pupils as males
1879	0.5058				
1880	0.5147	***Cohort 1***	**0.5280**		
1881	0.5314				
1882	0.5032				
1883	0.5141			**0.5075**	
1884	0.5252				
1885	0.5265	***Cohort 2***	**0.5255**		
1886	0.5296				**0.5442**
1887	0.5170				
1888	0.5124			**0.4902**	
1889	0.5255				
1890	0.5287	***Cohort 3***	**0.5162**		
1891	0.5308				**0.5451**
1892	0.5252				
1893	0.5304			**0.5222**	
1894	0.5183				
1895	0.5175	***Cohort 4***	**0.5132**		
1896	0.5086				**0.4694**
1897	0.5235				
1898	0.5184			**0.5117**	
1899	0.5144				
1900	0.5268	***Cohort 5***	**0.5235**		
1901	0.5183				**0.5228**
1902	0.5220				
1903	0.5184			**0.5135**	
1904	0.5270				
1905	0.5249	***Cohort 6***	**0.4930**		
1906	0.5243				**0.5184**
1907	0.5292				
1908	0.5156			**0.5014**	
1909	0.5256				
1910	0.5250				
1911	0.5351				**0.5350**

The lower ratio for 13-14 y females perhaps suggests that more females in this age group were leaving school than males in this age group, since the ratios for males and females in the younger age groups (5-6 y) does not show the same gender differences and the denominator is the same for this age group as for the older age group.

Table 14 – Marlborough Education District: Proportion of females in the total pupil population aged 5-15 y and the proportion of females in various age groups for 6 constructed cohorts (see also Fig.36; calculated from E-1 reports)

Year	Prop. females in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as females	Prop. 10-12 y pupils as females	Prop. 13-14 y pupils as females
1879	0.4942				
1880	0.4853	***Cohort 1***	**0.4720**		
1881	0.4686				
1882	0.4968				
1883	0.4859			**0.4925**	
1884	0.4748				
1885	0.4735	***Cohort 2***	**0.4745**		
1886	0.4704				**0.4558**
1887	0.4830				
1888	0.4876			**0.5098**	
1889	0.4745				
1890	0.4713	***Cohort 3***	**0.4838**		
1891	0.4692				**0.4549**
1892	0.4748				
1893	0.4696			**0.4778**	
1894	0.4817				
1895	0.4825	***Cohort 4***	**0.4868**		
1896	0.4914				**0.5306**
1897	0.4765				
1898	0.4816			**0.4883**	
1899	0.4856				
1900	0.4732	***Cohort 5***	**0.4765**		
1901	0.4817				**0.4772**
1902	0.4780				
1903	0.4816			**0.4865**	
1904	0.4730				
1905	0.4751	***Cohort 6***	**0.5070**		
1906	0.4757				**0.4816**
1907	0.4708				
1908	0.4844			**0.4986**	
1909	0.4744				
1910	0.4750				
1911	0.4649				**0.4650**

Individual age cohorts were created synthetically. For males, during the 1880s and the mid-1890s the proportion of males in the 13-14 y age group was greater than the proportion of males in the total pupil population (Fig. 35). During the 1890s the ratio of males in all age groups was lower than the proportion of males in the total pupil

population, with a significantly lower ratio for the 13-14 y age group. At the turn of the century the ratios for the three age groups for males was close to the proportion of males in the total pupil population. For the final cohort from 1905 the ratio of males in the two younger age groups was lower than the proportion of males in the total pupil population, with the proportion of males in the highest age group being as found in the total pupil population.

For females the trends seen for males are reversed since the proportions of females in each age group are the converse of the proportions for males (Fig. 36). The greatest points of interest are the increased proportions of males and the lower proportion of females in the 13-14 y age group in the later 1880s and early 1890s; also the low proportion of males and the high proportion of females in the 13-14 y age group in 1897. In all these cases it is not clear whether the differences are the result of males remaining at school longer or females leaving school earlier in the first two cases and the opposite occurring in the third case.

Similarly, there was a higher proportion of females aged 7-9 y and 10-12 y in the early 1900s and a lower proportion of males in these age groups; this could be because younger males were not attending school or because younger females were increasingly attending school.

Standards levels

The ratio of observed to expected pupil numbers in the higher Standards was calculated. The ratio for Standard 4 shows a small increase during the 1880s and by the early 1890s the observed rate was close to 90% of the expected rate (Fig. 37). This rate was maintained into the twentieth century until 1904 when more pupils were present in Standard 4 than had been expected, perhaps because of an inflow of pupils into the district or because pupils did not want to leave school without passing Standard 4.

The trends for the observed to expected pupils number for Standards 5 and 6 show few clear trends, although there was a slight increase in the number of pupils remaining into Standard 5 over the time period.

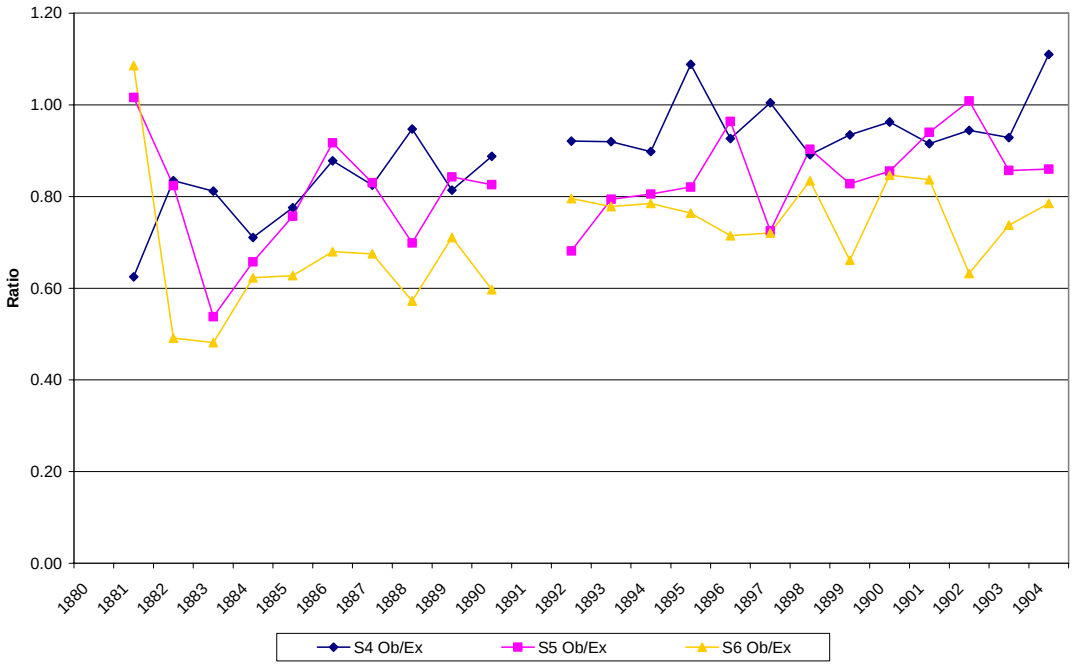


Fig. 37 – Marlborough Education District: Ratio of observed pupil numbers to expected pupil numbers for Standards 4, 5 and 6 (Source: E-1 Reports) [Note: no data were available for 1891 resulting in the gaps in the lines]

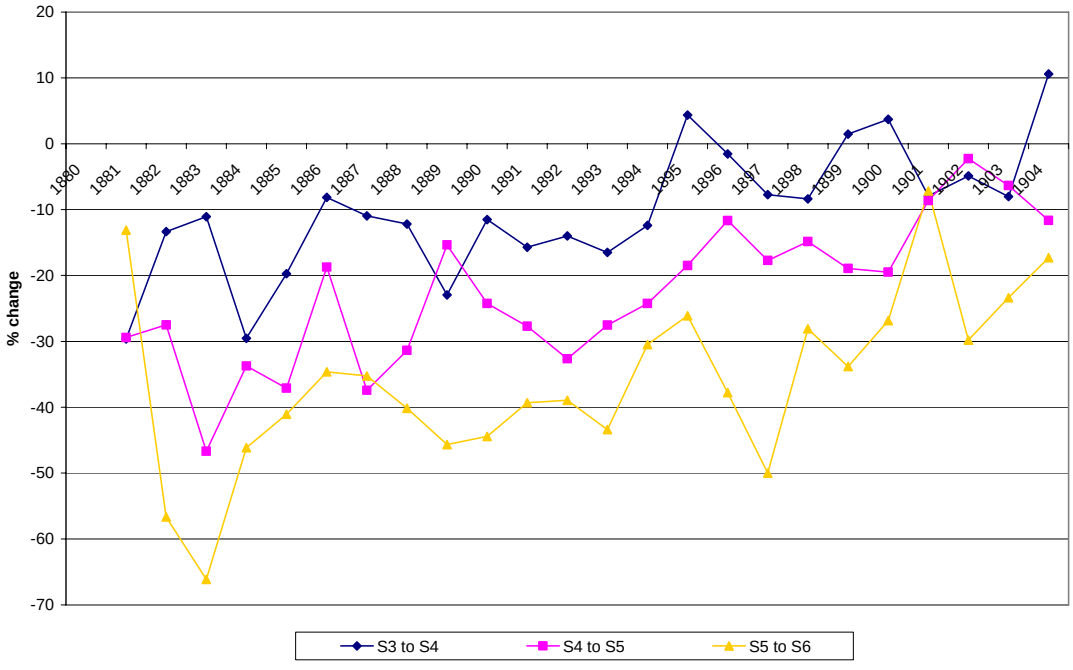


Fig.38 – Marlborough Education District: Percentage change between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6, for yearly cohorts starting in Standard 3 (calculated from E-1 reports)

The % changes for each Standard over time are shown in Fig. 38. The % change for Standard 4, while fluctuating, shows a general trend towards increasing retention in this Standard during the nineteenth century. By the end of the nineteenth century the loss from this Standard was less than 10%.

The observed % change for Standard 5 also fluctuated, especially during the 1880s. During the 1890s there was a steady decrease in the loss from this Standard, dropping from a loss of over 30% to a loss of just over 10% in 1896. During the last years of the nineteenth century the loss from Standard 5 increased slightly and by 1900 was close to 20%. Thereafter, there was a sharp decrease in the loss from Standard 5 to well below 10%. This change may have been related to the change in the level of exemption from Standard 4 to Standard 5 in 1899.

The trends in pupil loss from Standard 6 can be divided into several sections. From 1883 to 1886 there was a sharp decrease in the loss from this Standard followed by fluctuations in loss from this Standard until 1893 with the losses being around 40%.

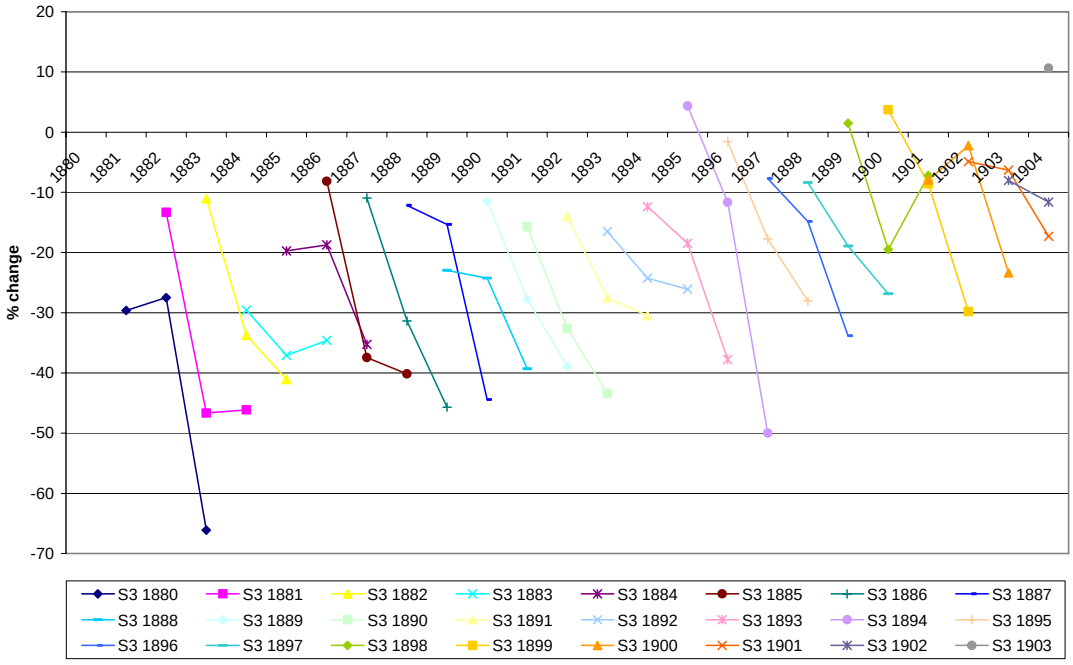


Fig. 39 – Marlborough Education District: The percentage changes between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6. Each line represents a single constructed cohort starting in Standard 3; the length of the line between points indicates the percentage loss between successive Standards – the longer the line, the greater the loss (calculated from E-1 reports)

During the 1890s there was a sharp decrease in loss followed by an even greater increase in loss from Standard 6, reaching 50% in1897. From 1897 to 1901 there was a sharp marked decrease in loss from the Standard to reach under 10% loss, but after the turn of the century the losses from Standard 6 again increased to over 20%.

A study of individual constructed Standards cohort shows that during the 1880s generally there was a greater loss between Standard 4 and Standard 5 than between Standard 5 and Standard 6 (Fig. 39), although there were some cohorts that were exceptions to this trend. During the remainder of the time period there are no clear trends in the loss from these higher Standards.

Summary for Marlborough Education District

There are few consistent gender differences but from the mid-1880s to the mid-1890s the ratio for 13-14 y males was greater than for females. A similar pattern is seen from the turn of the century.

For age cohorts, there was a slightly greater proportion of 13-14 y males in the mid-1880s and early 1890s and fewer 13-14 y males in the mid- to late 1890s compared to the proportion of males in the total pupil population. Similarly, there were fewer females in the 13-14 y age group in the mid-1880s and early 1890s compared to the proportion of females in the total pupil population.

The loss of pupils in successive Standards fluctuates throughout the years studied. Every 2-3 years the pattern changes, at times markedly, so that at times the loss is greater from Standard 4 to Standard 5 than from Standard 5 to Standard 6 and a few years later this is reversed.

In this Education District at the turn of the twentieth century there is a change in pattern in the age ratios, but there is no clear change in pattern in the Standards cohorts at this time.

Nelson

Age and gender

The ratio 5-6 y/7-9 y for both genders follows a similar pattern to that seen in other Education Districts. From a high plateau in the early 1880s, there is a marked decline in the ratio for both genders during the late 1880s. The ratios then fluctuate between 0.5 and 0.6, a slightly higher value than is found for a number of other Education Districts.

The ratio of 13-14 y/7-9 y for both males and females increases during the 1890s but after the turn of the century the ratio for both genders decreases (Fig. 40). During most of the nineteenth century the ratio for females is higher than that for males; however, from 1898 to 1904 the ratio for females is lower than that for males and falls from about 48% in 1897 to 34% in 1904. From 1906 there is no consistent pattern for the ratio for males and females. The higher ratio for females in the nineteenth century suggests that there are more females in the 13-14 y age group than there are males. The converse is the case after 1898 when the ratio for females is lower than that for males, suggesting that at this time females were leaving school in greater number from this age group than were males.

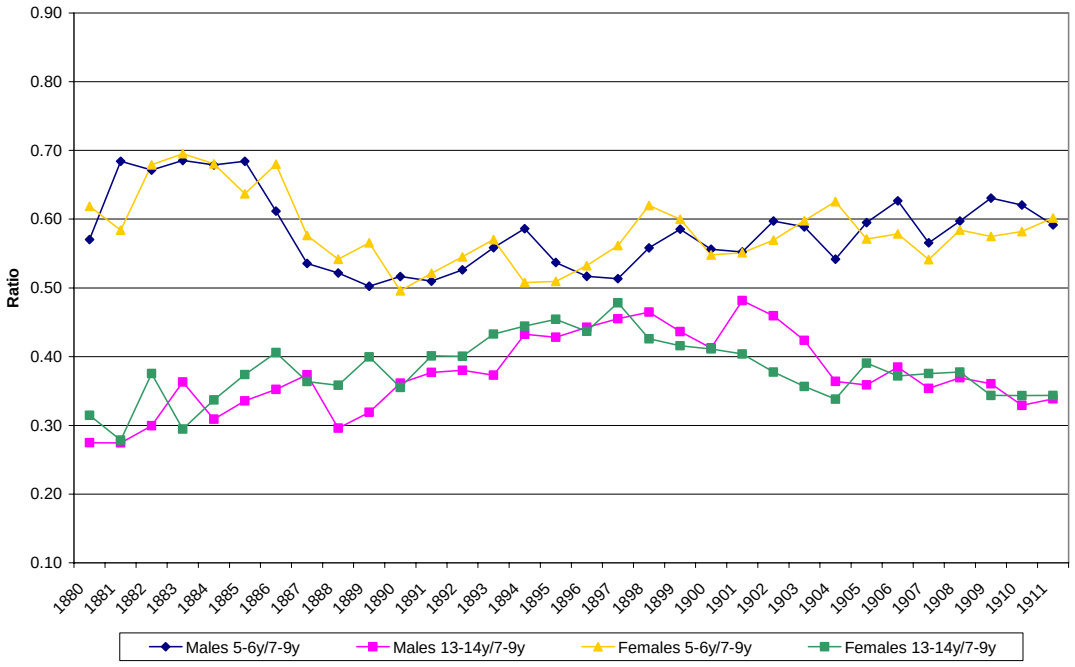


Fig. 40 – Nelson Education District: Ratios for male and female pupils aged 5-6 y and 13-14 y in the numerator, and aged 7-9 y in the denominator, 1880–1911 (calculated from various E-1 Reports)

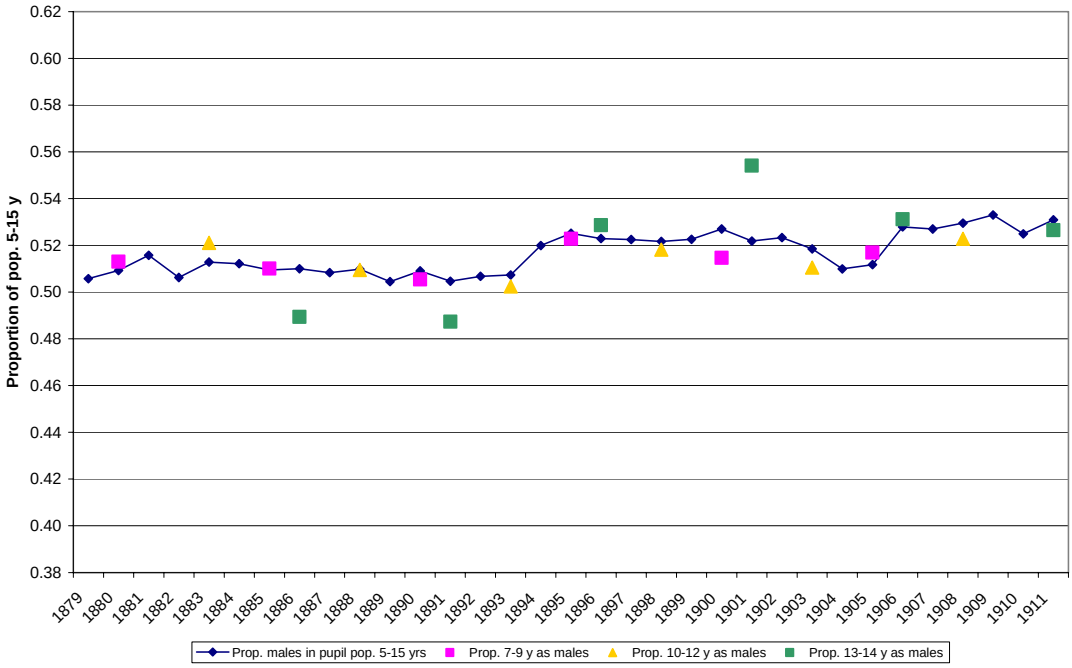


Fig. 41 – Nelson Education District: Proportion of males in the total pupil population aged 5-15 y, and the proportion of males in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 15; calculated from E-1 reports)

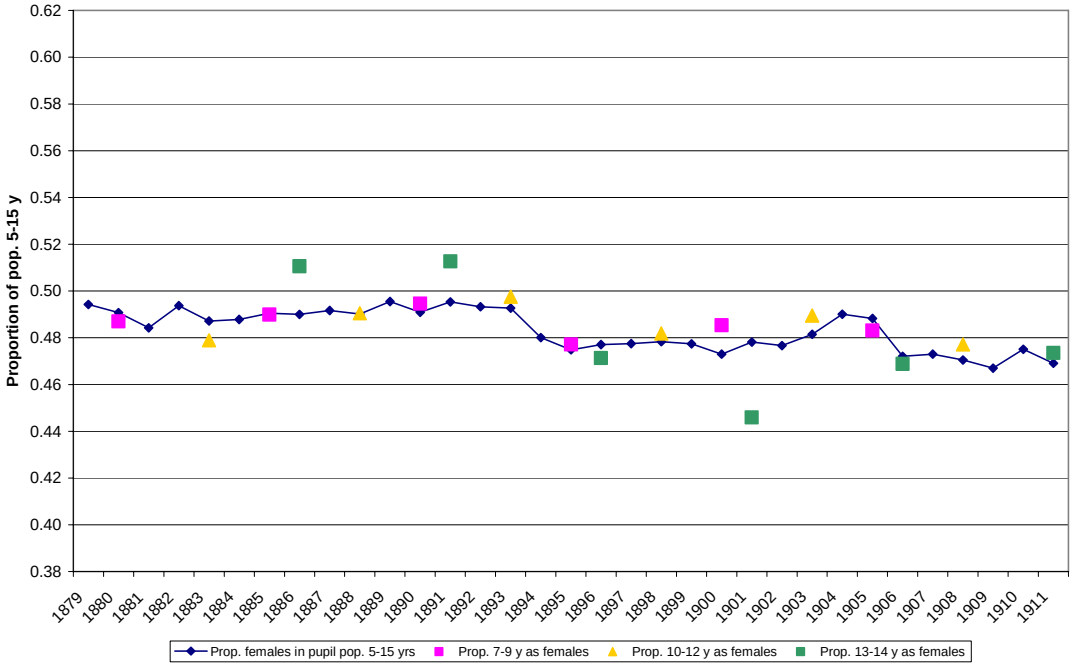


Fig. 42 – Nelson Education District: Proportion of females in the total pupil population aged 5-15 y, and the proportion of females in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 16; calculated from E-1 reports)

Table 15 – Nelson Education District: Proportion of males in the total pupil population aged 5-15 y and the proportion of males in various age groups for 6 constructed cohorts (see also Fig. 41; calculated from E-1 reports)

Year	Prop. males in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as males	Prop. 10-12 y pupils as males	Prop. 13-14 y pupils as males
1879	0.5058				
1880	0.5093	***Cohort 1***	**0.5130**		
1881	0.5157				
1882	0.5063				
1883	0.5129			**0.5211**	
1884	0.5122				
1885	0.5095	***Cohort 2***	**0.5101**		
1886	0.5100				**0.4894**
1887	0.5083				
1888	0.5098			**0.5095**	
1889	0.5045				
1890	0.5091	***Cohort 3***	**0.5054**		
1891	0.5046				**0.4873**
1892	0.5068				
1893	0.5073			**0.5024**	
1894	0.5199				
1895	0.5252	***Cohort 4***	**0.5228**		
1896	0.5229				**0.5287**
1897	0.5225				
1898	0.5216			**0.5182**	
1899	0.5225				
1900	0.5270	***Cohort 5***	**0.5147**		
1901	0.5218				**0.5541**
1902	0.5233				
1903	0.5185			**0.5105**	
1904	0.5099				
1905	0.5117	***Cohort 6***	**0.5169**		
1906	0.5279				**0.5312**
1907	0.5270				
1908	0.5295			**0.5228**	
1909	0.5330				
1910	0.5249				
1911	0.5309				**0.5265**

When individual age cohorts are created synthetically and followed (Figs 41 and 42), it appears that for Cohorts 1 and 2 either the females remain at school longer than the males or the males leave school at an earlier age. For Cohort 3 there is little difference between the genders. Cohort 4 indicates that either males are remaining at school into

Table 16 – Nelson Education District: Proportion of females in the total pupil population aged 5-15 y and the proportion of females in various age groups for 6 constructed cohorts (see also Fig. 42; calculated from E-1 reports)

Year	Prop. females in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as females	Prop. 10-12 y pupils as females	Prop. 13-14 y pupils as females
1879	0.4942				
1880	0.4907	***Cohort 1***	**0.4870**		
1881	0.4843				
1882	0.4937				
1883	0.4871			**0.4789**	
1884	0.4878				
1885	0.4905	***Cohort 2***	**0.4899**		
1886	0.4900				**0.5106**
1887	0.4917				
1888	0.4902			**0.4905**	
1889	0.4955				
1890	0.4909	***Cohort 3***	**0.4946**		
1891	0.4954				**0.5127**
1892	0.4932				
1893	0.4927			**0.4976**	
1894	0.4801				
1895	0.4748	***Cohort 4***	**0.4772**		
1896	0.4771				**0.4713**
1897	0.4775				
1898	0.4784			**0.4818**	
1899	0.4775				
1900	0.4730	***Cohort 5***	**0.4853**		
1901	0.4782				**0.4459**
1902	0.4767				
1903	0.4815			**0.4895**	
1904	0.4901				
1905	0.4883	***Cohort 6***	**0.4831**		
1906	0.4721				**0.4688**
1907	0.4730				
1908	0.4705			**0.4772**	
1909	0.4670				
1910	0.4751				
1911	0.4691				**0.4735**

the 13-14 y age group or females are leaving school in greater numbers from this age group in 1901.

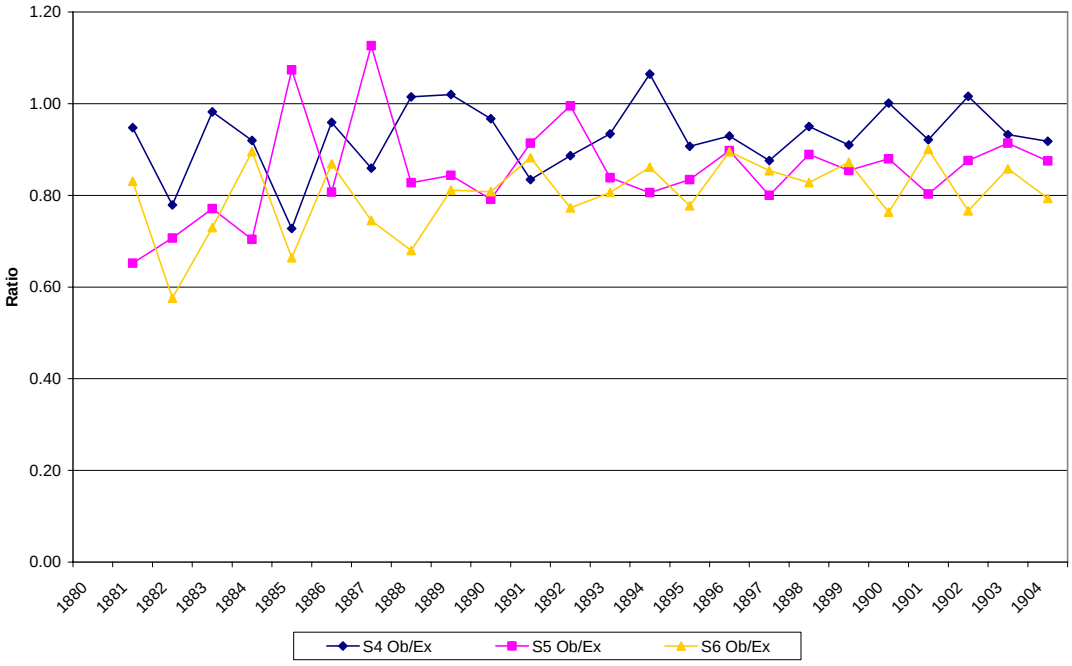


Fig. 43 – Nelson Education District: Ratio of observed pupil numbers to expected pupil numbers for Standards 4, 5 and 6 (Source: E-1 Reports)

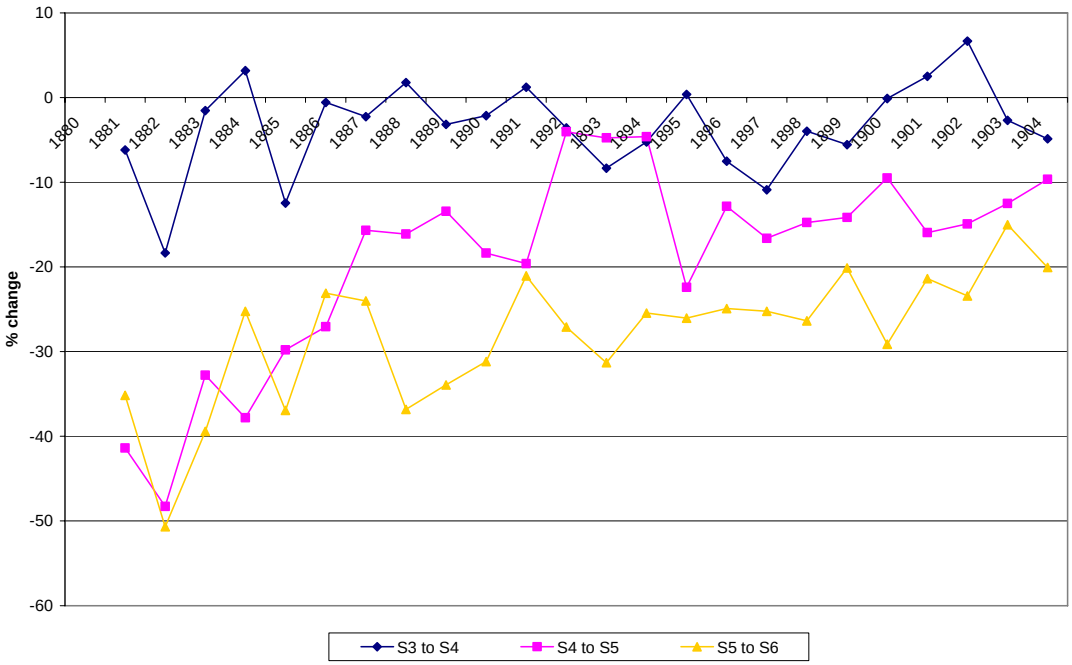


Fig. 44 – Nelson Education District: Percentage change between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6, for yearly cohorts starting in Standard 3 (calculated from E-1 reports)

Standards levels

The ratio of observed to expected pupil numbers in the three highest Standards shows that in the early 1880s there was no clear pattern (Fig. 43). From the mid-1880s the ratio for Standard 4 was about 90% and changed little over the years. Similar patterns can be seen for both Standard 5 and Standard 6 which have a ratio of about 85% and this ratio changes little over the time period under consideration.

Calculations of the changes observed between successive Standards shows that there was little change for Standard 4 over the time period (Fig. 44). For Standard 5, there was a decrease in the % change during the 1880s rising from a decrease of close to 50% in the early 1880s to a loss of only about 15% by1889. After a small increase in 1890 and 1891 there was a marked rise in the decrease for Standard 5 in1892, rising to about 5%, a level maintained until 1894 after which the % change decreased again, and for the rest of the nineteenth century the loss remained between 15% and 10% loss. From 1901 the loss from Standard 5 diminished gradually to reach about 10% by 1904.

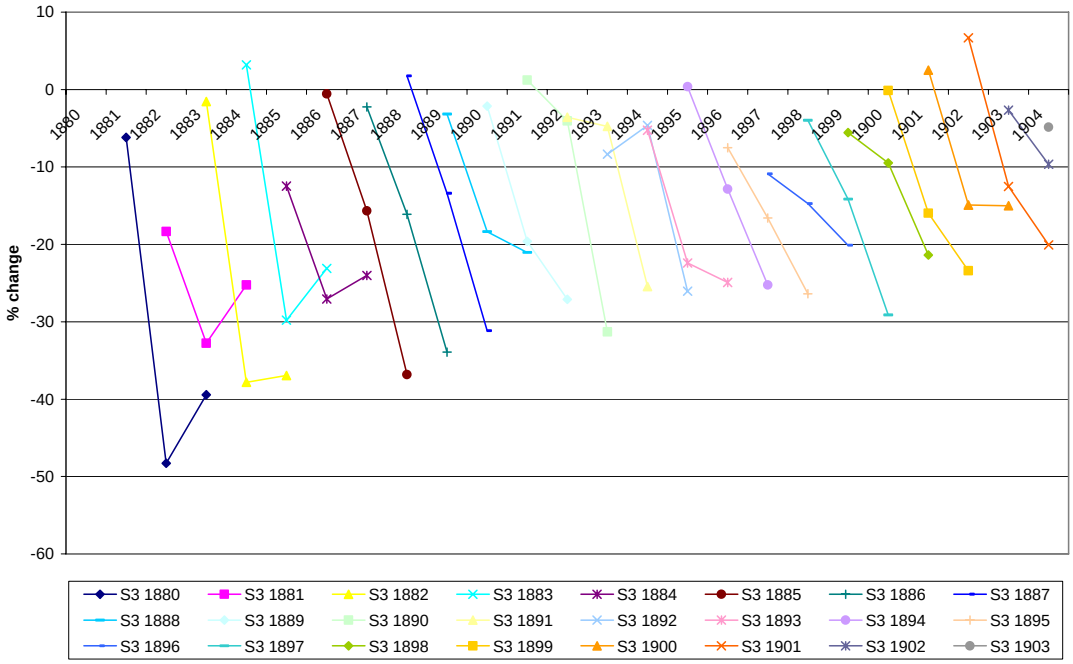


Fig. 45 – Nelson Education District: The percentage changes between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6. Each line represents a single constructed cohort starting in Standard 3; the length of the line between points indicates the percentage loss between successive Standards – the longer the line, the greater the loss (calculated from E-1 reports)

For Standard 6 the % loss fluctuated considerably throughout the 1880s and into the early 1890s, although there was a gradual decrease in the loss of this Standard from over 50% in 1882 to just over 20% in 1891. During the 1890s there was little change in the % loss from this Standard; at the beginning of the new century there were fluctuations in the loss from Standard 6 but the loss declined slightly from about 23% in 1902 to 20% in 1904.

When individual constructed Standards cohorts are followed there is no clear pattern over the time period under consideration (Fig. 45). The main point to note is that there was very little loss from Standard 3 to Standard 4 throughout the whole period. However, in the early years of the 1880s there appears to be a greater loss from Standard 4 to Standard 5 than from Standard 5 to Standard 6. During the 1890s there were some cohorts that showed a greater loss from Standard 4 to Standard 5 and other cohorts that showed a greater loss from Standard 5 to Standard 6. From the 1899 Standard 3 cohort there was a greater loss from Standard 4 to Standard 5 than from Standard 5 to Standard 6.

Summary for Nelson Education District

There are no consistent gender differences for the 5-6 y age group for the Nelson Education District during the years being studied. However, during the nineteenth century there was a tendency for the 13-14 y female ratio to be below the male ratio for this age group. Individual cohorts of pupils show the proportion of 13-14 y males was below the proportion of males in the whole pupil population during the 1880s and early 1890s, and the proportion for males in this age group was above that of the whole pupil population in the early 1900s. Similarly, the ratios for females in the 13-14 y age group are the reverse of those for males, being below the ratio of females in the pupil population at the times when the proportion of males was higher.

Until the mid-1880s there was a tendency for a greater loss of pupils between Standard 4 and Standard 5 than between Standard 5 and Standard 6 although there are some variations. During the late 1880s the losses between the various higher Standards were similar. The retention of pupils from Standard 3 to Standard 4 was always high in the Nelson Education District, rarely being more than a 10% loss which is much lower than in some other Education Districts. In the mid-1890s the

losses from Standard 5 to Standard 6 were greater than the losses from Standard 4 to Standard 5, with some variations in the late 1890s before a new pattern was established around the turn of the century when losses from Standard 4 to Standard 5 were greater than losses from Standard 5 to Standard 6.

Grey

Age and gender

The Grey Education District was established from the Westland Education District in 1885 and so no data are available before 1885 for this Education District.

The 5-6 y/7-9 y ratios for both males and females fluctuate markedly throughout the time period under consideration. However, from the mid-1890s the ratios are generally above 0.6, which may indicate a higher proportion of younger pupils attending schools in this Education District.

For both males and females the ratio of 13-14 y to 7-9 y pupils rose during the late 1880s and early 1890s and there was little difference for the two genders (Fig. 46). After 1895 the pattern for males and females is different. For males, after an initial

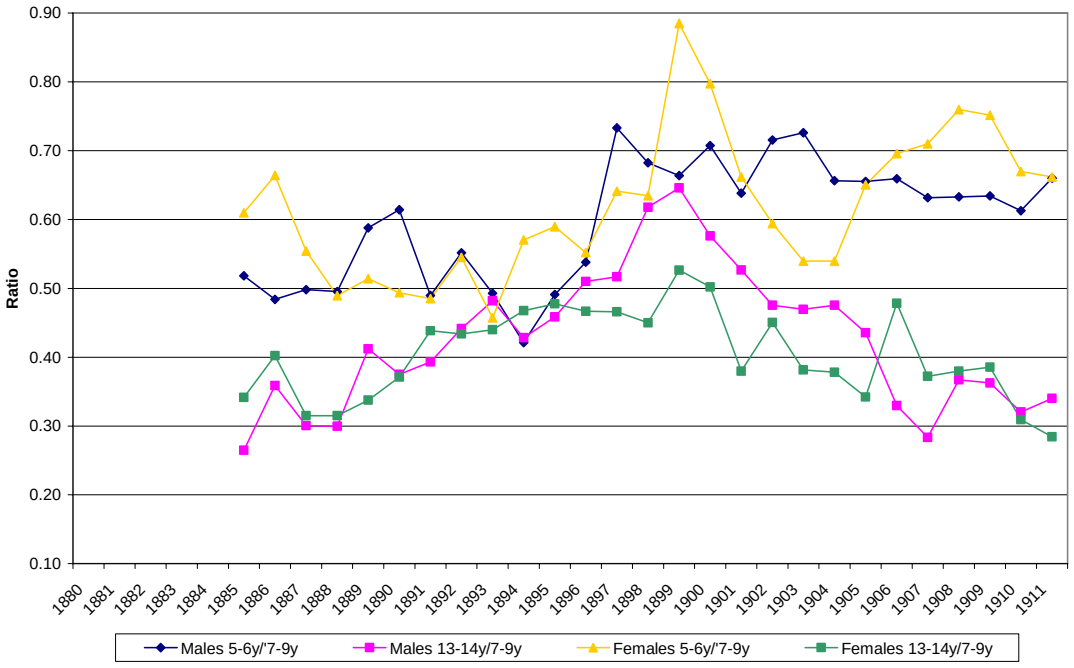


Fig. 46 – Grey Education District: Ratios for male and female pupils aged 5-6 y and 13-14 y in the numerator, and aged 7-9 y in the denominator, 1880–1911 (calculated from various E-1 Reports)

small increase there was a larger increase to 1898 and a further small increase to 1899. Thereafter, the ratio for males decreased from a peak of about 65% in 1899 to a low of less than 30% in 1907 before rising again slightly.

For females the ratio of 13-14 y to 7-9 y plateaued during the later 1890s to about 47%, then rose slightly in 1899 to about 53% before falling over the next 6 years to a low of about 35% before rising in 1906 and then falling again over the following 6 years. From 1897 to 1905 the ratio for females was lower than the ratio for males suggesting that there were few females in this age group than there were males, in turn suggesting that females may have left school at an earlier age than males.

Constructed age cohorts show few trends, although for males Cohort 3 shows an elevated level for the 13-14 y proportion and there is a lowered proportion for this age group for Cohort 4 (Fig. 47).

For females the trends are the reverse of those seen for males because the ratios for females are the converse of those for males (Fig. 48). For females the lower value for the 13-14 y ratio in 1901 may indicate that females in this age group were leaving school in greater numbers than were males or that males were staying at school in greater numbers than females. It is not possible to decide which of these is correct. Similarly for the 13-14 y age group in 1906, females may have stayed at school more than males or males may have left school in greater numbers than females.

Standards levels

Because the new Grey Education District was set up in 1885, the distribution of pupils in the various Standards was not stable until the end of the 1880s. Throughout the 1890s the ratio of observed to expected pupils in Standard 4 changed little and was about 90% (Fig. 49). At the turn of the century there was an increase in the ratio for Standard 4 and in 1901 and 1902 this ratio was above the expected level being over 1.0, indicating that more pupils were attending the schools at this level that the previous pupil population had suggested.

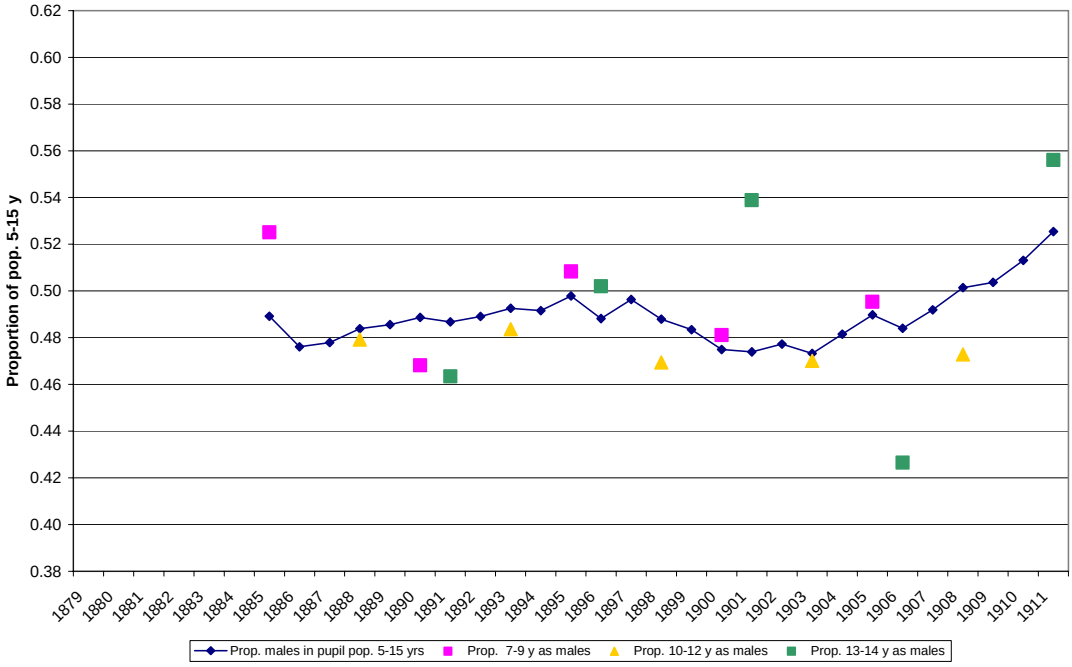


Fig. 47 – Grey Education District: Proportion of males in the total pupil population aged 5-15 y, and the proportion of males in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 17; calculated from E-1 reports)

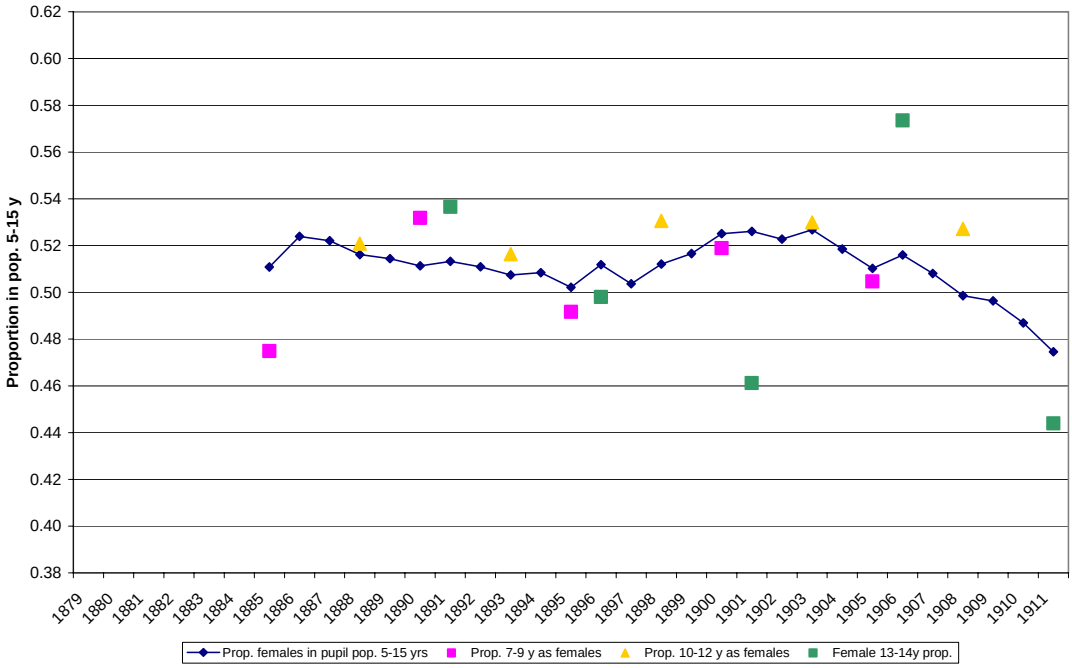


Fig. 48 – Grey Education District: Proportion of females in the total pupil population aged 5-15 y, and the proportion of females in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 18; calculated from E-1 reports)

Table 17 – Grey Education District: Proportion of males in the total pupil population aged 5-15 y and the proportion of males in various age groups for 6 constructed cohorts (see also Fig. 47; calculated from E-1 reports)

Year	Prop. males in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as males	Prop. 10-12 y pupils as males	Prop. 13-14 y pupils as males
1879					
1880		***Cohort 1 NO DATA***			
1881					
1882					
1883					
1884					
1885	0.4892	***Cohort 2***	**0.5251**		
1886	0.4761				
1887	0.4779				
1888	0.4838			**0.4792**	
1889	0.4855				
1890	0.4886	***Cohort 3***	**0.4682**		
1891	0.4867				**0.4634**
1892	0.4891				
1893	0.4926			**0.4837**	
1894	0.4915				
1895	0.4979	***Cohort 4***	**0.5083**		
1896	0.4882				**0.5020**
1897	0.4963				
1898	0.4879			**0.4694**	
1899	0.4834				
1900	0.4749	***Cohort 5***	**0.4811**		
1901	0.4739				**0.5388**
1902	0.4772				
1903	0.4732			**0.4701**	
1904	0.4815				
1905	0.4897	***Cohort 6***	**0.4953**		
1906	0.4840				**0.4265**
1907	0.4919				
1908	0.5014			**0.4728**	
1909	0.5037				
1910	0.5131				
1911	0.5254				**0.5561**

For Standard 5 the ratio of observed to expected increased from 1895 to 1899, and there was a spike in the ratio in 1900, after which the ratio returned to the previous level with another smaller rise in 1903.

Table 18 – Grey Education District: Proportion of females in the total pupil population aged 5-15 y and the proportion of females in various age groups for 6 constructed cohorts (see also Fig. 48; calculated from E-1 reports)

Year	Prop. females in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as females	Prop. 10-12 y pupils as females	Prop. 13-14 y pupils as females
1879					
1880		***Cohort 1 NO DATA***			
1881					
1882					
1883					
1884					
1885	0.5108	***Cohort 2***	**0.4749**		
1886	0.5239				
1887	0.5221				
1888	0.5162			**0.5208**	
1889	0.5145				
1890	0.5114	***Cohort 3***	**0.5318**		
1891	0.5133				**0.5366**
1892	0.5109				
1893	0.5074			**0.5163**	
1894	0.5085				
1895	0.5021	***Cohort 4***	**0.4917**		
1896	0.5118				**0.4980**
1897	0.5037				
1898	0.5121			**0.5306**	
1899	0.5166				
1900	0.5251	***Cohort 5***	**0.5189**		
1901	0.5261				**0.4612**
1902	0.5228				
1903	0.5268			**0.5299**	
1904	0.5185				
1905	0.5103	***Cohort 6***	**0.5047**		
1906	0.5160				**0.5735**
1907	0.5081				
1908	0.4986			**0.5272**	
1909	0.4963				
1910	0.4869				
1911	0.4746				**0.4439**

For Standard 6 the ratio fluctuates considerably; during the early 1890s the ratio is reasonably static at around 50% and during the late 1890s the ratio, while more variable, fluctuates at around 75%. After 1898 the ratio for Standard 6 decreases until 1901, falling from about 85% to about 63% and then rises markedly to about 83% in 1902 before stabilizing close to 80%.

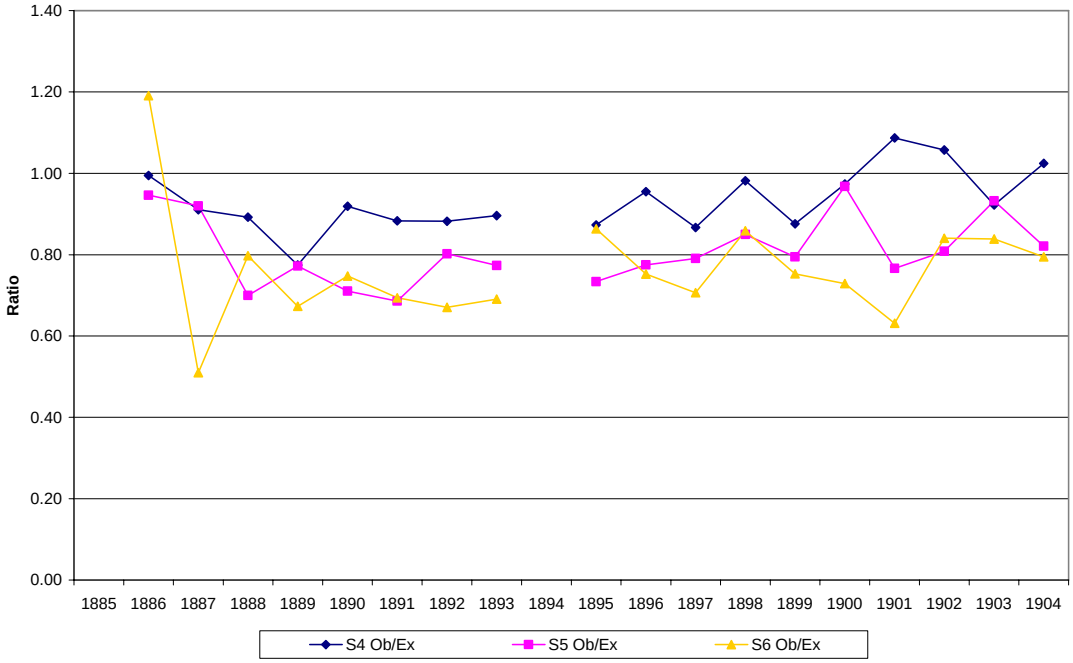


Fig. 49 – Grey Education District: Ratio of observed pupil numbers to expected pupil numbers for Standards 4, 5 and 6 (Source: E-1 Reports) [Note: no data were available for 1894 resulting in the gaps in the lines]

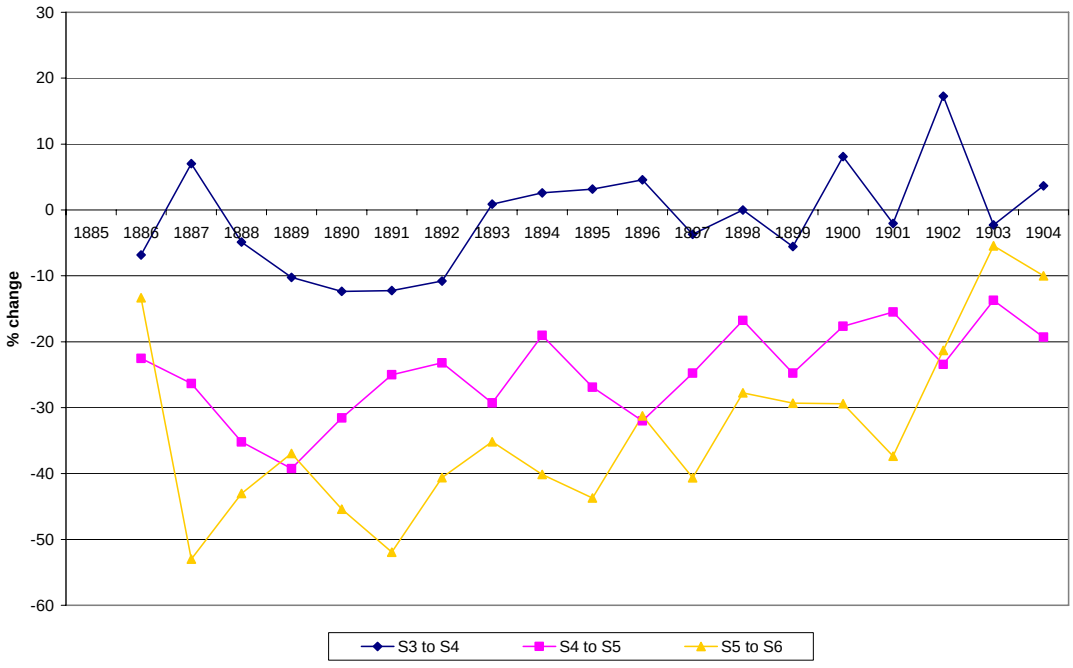


Fig. 50 – Grey Education District: Percentage change between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6, for yearly cohorts starting in Standard 3 (calculated from E-1 reports)

The % change between the observed pupil numbers show that from 1888 to 1892 there was over 10% loss at Standard 4, but after this there was a gain in pupils at the Standard 4 level or only minimal loss from this Standard (Fig. 50). The trends for % change for Standard 5 show considerable fluctuations, although there is a general trend towards fewer losses from this Standard over time. There are similar fluctuations in the % change for Standard 6; however, there is a marked decrease in pupil loss from Standard 6 from 1901 to 1903 with losses rising from about 45% to about 5% before falling back slightly to 10% in 1904.

The % change for individual constructed cohorts shows that there are changing patterns of pupil loss (Fig. 51). Until the late 1880s there is greater loss from Standard 4 to Standard 5 than from Standard 5 to Standard 6. During the early 1890s the loss is similar from Standard 4 to Standard 5 and from Standard 5 to Standard 6. From 1893 until the early years of the twentieth century the loss is generally greater between Standard 4 and Standard 5 than between Standard 5 and Standard 6, although after the turn of the century there is greater variation among the cohorts.

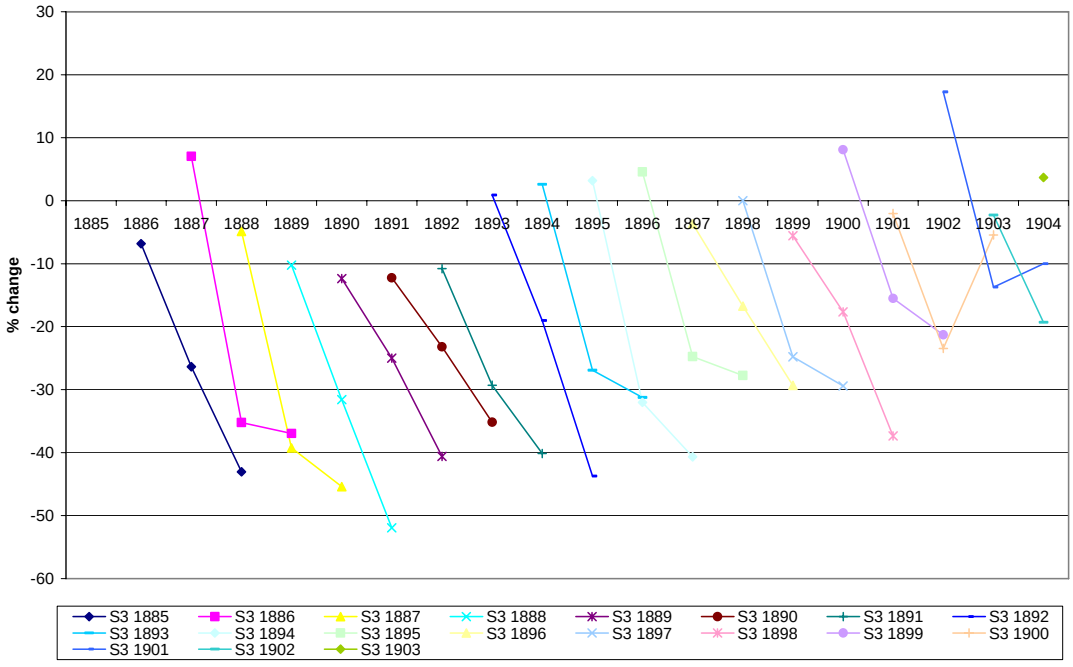


Fig. 51 – Grey Education District: The percentage changes between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6. Each line represents a single constructed cohort starting in Standard 3; the length of the line between points indicates the percentage loss between successive Standards – the longer the line, the greater the loss (calculated from E-1 reports)

Summary for Grey Education District

The Grey Education District was established in 1885 by the division of the Westland Education District.

There were no consistent gender differences for the 5-6 y age group of pupils. However, for the 13-14 y age group that ratio of males exceeds that of females from the mid-1890s until the middle of the first decade of the twentieth century. Age cohorts show no consistent trends, although there is a slight tendency for 10-12 y males to make up less of the 10-12 y pupil population than the proportion of males in the whole pupil population.

The losses of pupils from Standard 3 to Standard 4 are always low, generally less than 10%. During the late 1880s the losses of pupils from Standard 4 to Standard 5 were greater than the losses from Standard 5 to Standard 6, and this pattern was also seen from the mid-1890s.

Westland

Age and gender

While there are marked fluctuations in the 5-6 y/7-9 y ratios, the overall trends for the male and female ratios are similar. A decline in the early 1880s, possibly related to declining fertility, is followed by a period until the mid-1890s when the ratio is relatively stable for both genders. In the later 1890s the ratio for females drops below that for males before rising at the turn of the century. After 1900 there are more marked fluctuations for both genders.

During the 1880s there was a marked increase in the ratio of 13-14 y/7-9 y pupils, both males and females (Fig. 52). At this time the ratio for females was greater than the ratio for males. During the early 1890s the ratios for both genders stabilised at about 55% and there was little difference between the genders. After 1893 the ratio for females decreased to about 45% in 1895 before rising again to peak in 1901 at about 75% and then falling greatly to about 28% in 1907 before increasing again to settle at about 38%.

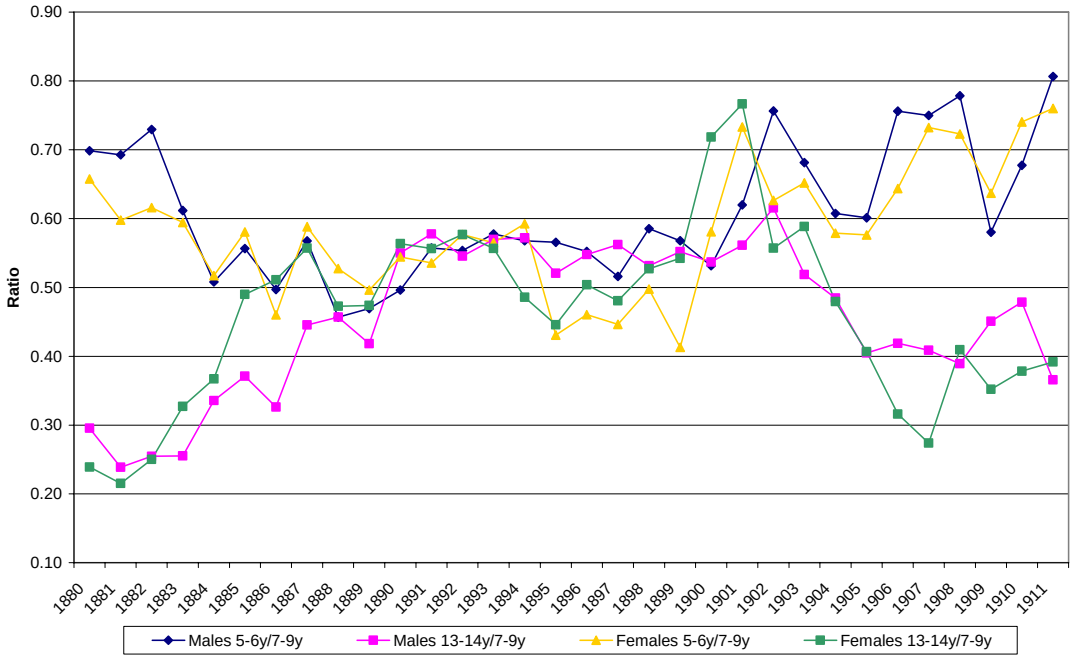


Fig. 52 – Westland Education District: Ratios for male and female pupils aged 5-6 y and 13-14 y in the numerator, and aged 7-9 y in the denominator, 1880–1911 (calculated from various E-1 Reports)

For males the ratio remained reasonably constant during the 1890s at about 55% before rising slightly to a peak in 1902 of about 62% before falling through the early years of the new century until 1905 when the ratio was about 40%. The ratio for males remained at this level until 1908 when it rose to about 48% in 1910 before falling once again to about 38%.

During the 1890s the ratio for females was below that for males. This pattern changed between 1899 and 1902 when the ratio for females was considerably greater than for males. From 1902 to 1905 the ratio for males and females was similar but after 1905 the ratio for females was again generally lower than the ratio for males except for 1908.

These results indicate that there were more females in the 13-14 y age group in the 1880s and for a brief time at the turn of the century. At other time there were generally fewer females in this age group than there were males suggesting that females in the 13-14 y age group were leaving school at an earlier age than males.

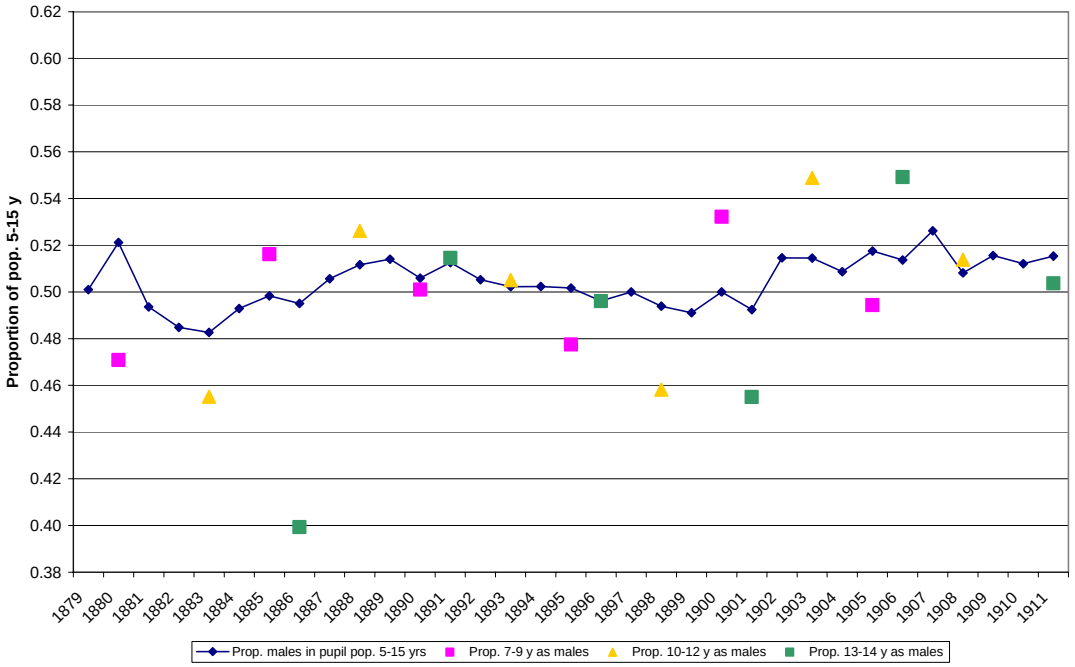


Fig. 53 – Westland Education District: Proportion of males in the total pupil population aged 5-15 y, and the proportion of males in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 19; calculated from E-1 reports)

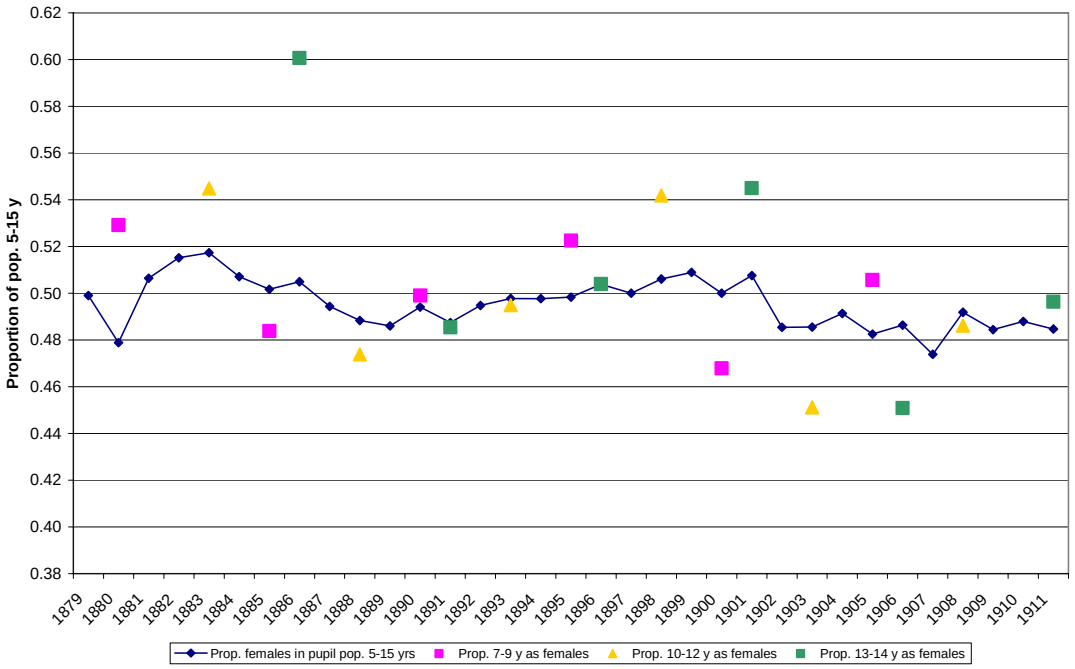


Fig. 54 – Westland Education District: Proportion of females in the total pupil population aged 5-15 y, and the proportion of females in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 20; calculated from E-1 reports)

When individual constructed age cohorts are considered, there are few obvious trends. In the 1882 there were slightly fewer males in all age groups (Fig. 53) and, because of the reciprocity of the genders, slightly more females in all age groups (Fig. 54).The male cohort starting in 1895 also had slightly fewer members and the cohort starting in 1900 had slightly more male members; there were corresponding trends for females.

One point of interest for this Education District is that the males and females attending school were almost equal in proportion which is generally not the case in most other Education Districts.

Standards levels

The ratio of observed to expected pupils in various Standards shows great fluctuations for all three Standards under consideration (Fig. 55). The sharp decrease in the ratio for all three Standards in 1885 is the result of the setting up of the new Grey Education District. There are no clear patterns and trends in the observed to expected ratios for all three Standards that can be discerned.

However, when the observed pupil numbers in each of the three Standards is considered separately, some patterns can be seen (Fig. 56). During the late 1880s there was an increased loss of pupils from Standard 4 to Standard 5 and a similar trend is seen during the 1890s. From 1897 until 1900 there is an increased loss from Standard 4 to Standard 5 with a sharp increase to almost 40% from 1900 to 1902 before the level recovers again in 1903 to about 18%.

For Standard 6 the loss remains relatively static until the mid-1890s at around 35%. After 1895 the loss from Standard 5 to Standard 6 declines until 1901. There is a sharp increase in loss in 1902 to over 30% before the loss from Standard 5 to Standard 6 becomes erratic again.

A consideration of individual constructed Standards cohorts shows no clear patterns of loss among the various Standards (Fig. 57) and for a number of cohorts during the nineteenth century there is even an increase in pupils between Standard 4 and Standard 5 over the expected number. A similar occurrence is seen for pupils moving

Table 19 – Westland Education District: Proportion of males in the total pupil population aged 5-15 y and the proportion of males in various age groups for 6 constructed cohorts (see also Fig. 53; calculated from E-1 reports)

Year	Prop. males in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as males	Prop. 10-12 y pupils as males	Prop. 13-14 y pupils as males
1879	0.5010				
1880	0.5212	***Cohort 1***	**0.4708**		
1881	0.4936				
1882	0.4849				
1883	0.4827			**0.4552**	
1884	0.4929				
1885	0.4984	***Cohort 2***	**0.5162**		
1886	0.4950				**0.3993**
1887	0.5057				
1888	0.5117			**0.5262**	
1889	0.5140				
1890	0.5059	***Cohort 3***	**0.5010**		
1891	0.5126				**0.5146**
1892	0.5053				
1893	0.5023			**0.5051**	
1894	0.5024				
1895	0.5017	***Cohort 4***	**0.4775**		
1896	0.4962				**0.4961**
1897	0.5000				
1898	0.4939			**0.4582**	
1899	0.4911				
1900	0.5000	***Cohort 5***	**0.5322**		
1901	0.4924				**0.4550**
1902	0.5146				
1903	0.5145			**0.5488**	
1904	0.5086				
1905	0.5175	***Cohort 6***	**0.4943**		
1906	0.5137				**0.5492**
1907	0.5262				
1908	0.5082			**0.5138**	
1909	0.5156				
1910	0.5121				
1911	0.5153				**0.5037**

from Standard 5 to Standard 6 around the turn of the century where there was a greater number of pupils in Standard 6 than was calculated from the previous Standard. Some of these increased Standard 5 and Standard 6 numbers may be related to the District High Schools that operated in the area such as the Kumara District High School which operated in the late 1890s (Hodder, 1997).

Table 20 – Westland Education District: Proportion of females in the total pupil population aged 5-15 y and the proportion of females in various age groups for 6 constructed cohorts (see also Fig. 54; calculated from E-1 reports)

Year	Prop. females in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as females	Prop. 10-12 y pupils as females	Prop. 13-14 y pupils as females
1879	0.4990				
1880	0.4788	***Cohort 1***	**0.5292**		
1881	0.5064				
1882	0.5151				
1883	0.5173			**0.5448**	
1884	0.5071				
1885	0.5016	***Cohort 2***	**0.4838**		
1886	0.5050				**0.6007**
1887	0.4943				
1888	0.4883			**0.4738**	
1889	0.4860				
1890	0.4941	***Cohort 3***	**0.4990**		
1891	0.4874				**0.4854**
1892	0.4947				
1893	0.4977			**0.4949**	
1894	0.4976				
1895	0.4983	***Cohort 4***	**0.5225**		
1896	0.5038				**0.5039**
1897	0.5000				
1898	0.5061			**0.5418**	
1899	0.5089				
1900	0.5000	***Cohort 5***	**0.4678**		
1901	0.5076				**0.5450**
1902	0.4854				
1903	0.4855			**0.4512**	
1904	0.4914				
1905	0.4825	***Cohort 6***	**0.5057**		
1906	0.4863				**0.4508**
1907	0.4738				
1908	0.4918			**0.4862**	
1909	0.4844				
1910	0.4879				
1911	0.4847				**0.4963**

Summary for Westland Education District

As noted above, the Grey Education District was divided from the Westland Education District in 1885 and this change could have affected the pupil population remaining in the Westland Education District.

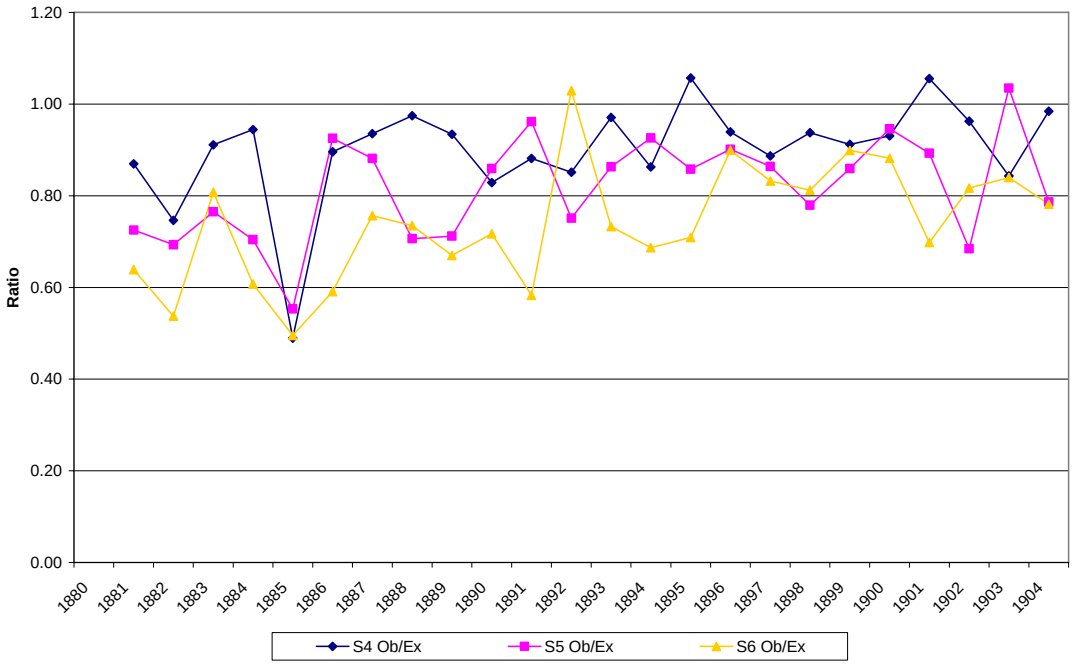


Fig. 55 – Westland Education District: Ratio of observed pupil numbers to expected pupil numbers for Standards 4, 5 and 6 (Source: E-1 Reports)

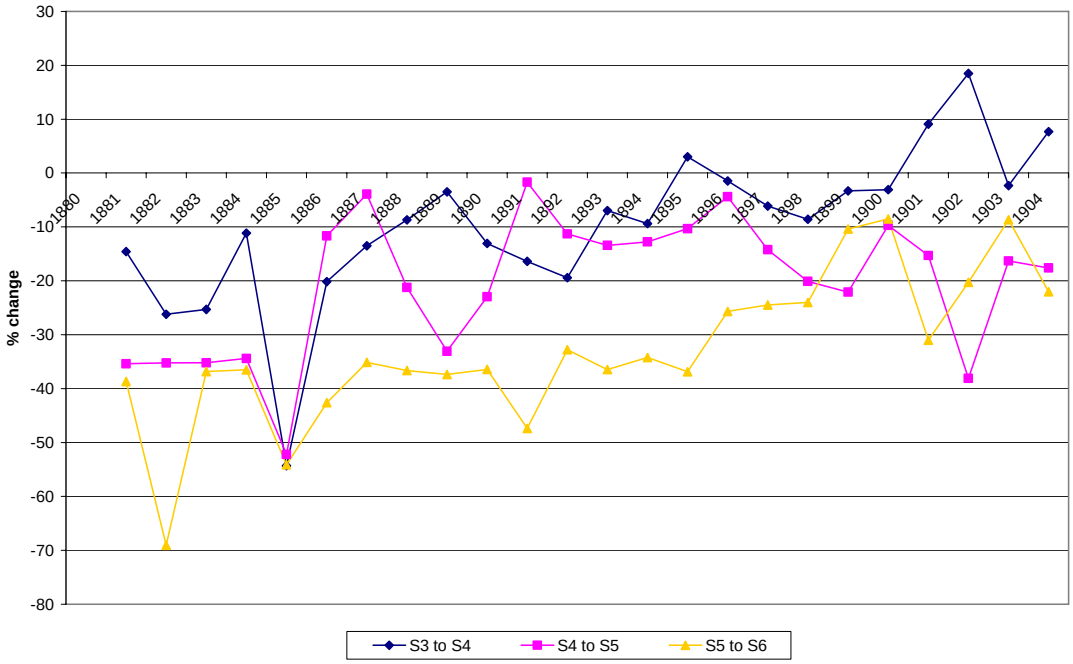


Fig. 56 – Westland Education District: Percentage change between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6, for yearly cohorts starting in Standard 3 (calculated from E-1 reports)

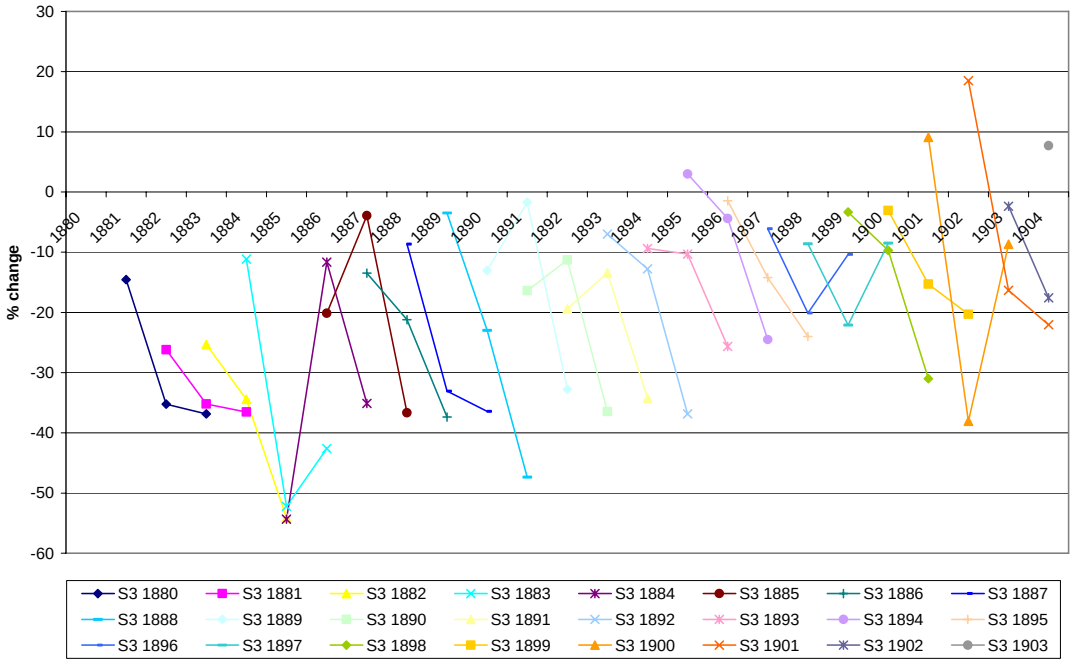


Fig. 57 – Westland Education District: The percentage changes between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6. Each line represents a single constructed cohort starting in Standard 3; the length of the line between points indicates the percentage loss between successive Standards – the longer the line, the greater the loss (calculated from E-1 reports)

There are no clear gender differences for the 5-6 y or the 13-14 y age groups during the years being studied. Also, there are no clear trends seen for the derived age cohorts.

The losses of pupils between successive Standards levels are variable during the 1880s. During the 1890s the losses from Standard 5 to Standard 6 are greater than the losses from Standard 4 to Standard 5. Around the beginning of the twentieth century this pattern becomes more variable but generally the losses from Standard 4 to Standard 5 are greater than the losses from Standard 5 to Standard 6.

North Canterbury

Age and gender

The ratio of pupils 5-6 y/7-9 y is similar for both genders. There is a decline in the ratios during the 1880s but then the ratios remain stable at just above 0.5, rising closer to 0.6 after the beginning of the new century.

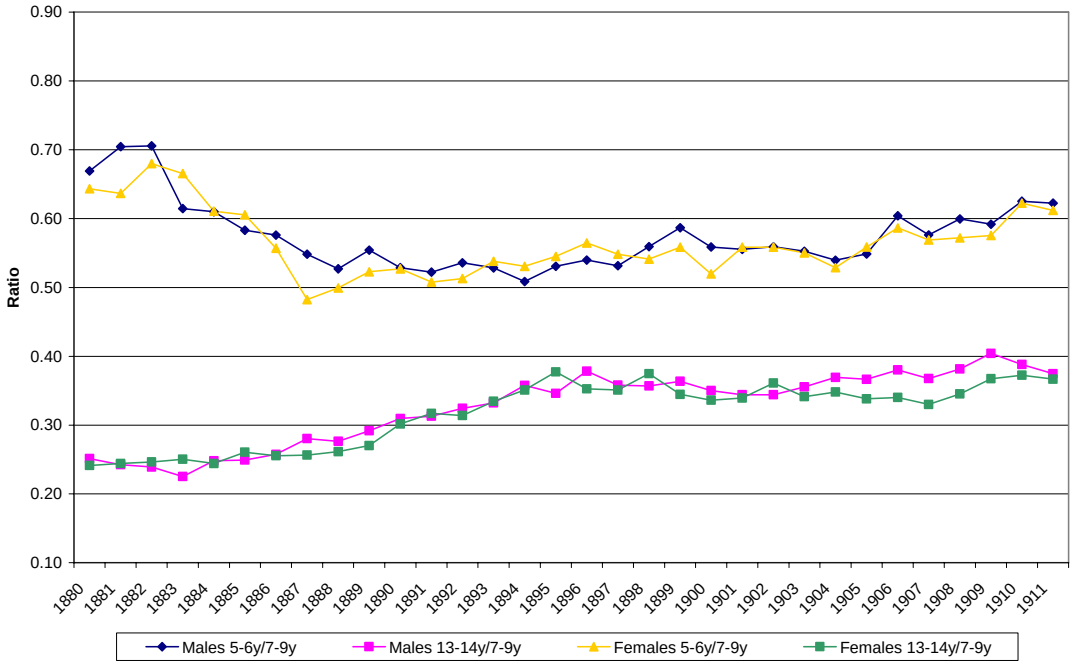


Fig. 58 – North Canterbury Education District: Ratios for male and female pupils aged 5-6 y and 13-14 y in the numerator, and aged 7-9 y in the denominator, 1880–1911 (calculated from various E-1 Reports)

The ratio for 13-14 y/7-9 y pupils shows a steady increase from the mid-1880s until the mid-1890s (Fig. 58). The ratio then remains relatively stable until 1903 after which the ratio for males increases slightly with a more marked increase from 1907 to 1909; for females the ratio remains relatively stable until 1907 after which is rises as for males.

During most of the period under consideration there is little difference between the ratio for males and that for females. However, from 1903 the ratio for females is lower than that for males in the 13-14 y age group. It is suggested that this may be because females in this age group were leaving school at an earlier age than males.

Individual age cohorts were created synthetically to follow pupils through the various age groups. For males in the first cohort there were few pupils in all three age groups than there were males in the total pupil population (Fig. 59). In the second cohort there were fewer males in the 13-14 y age group than in the total pupil population. For

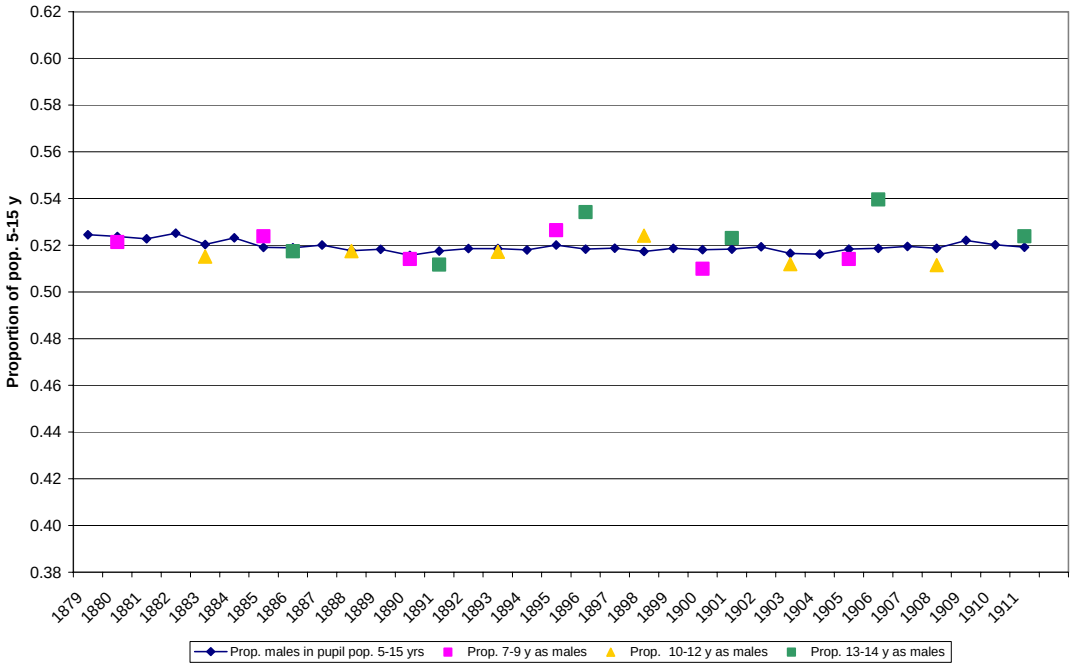


Fig. 59 – North Canterbury Education District: Proportion of males in the total pupil population aged 5-15 y, and the proportion of males in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 21; calculated from E-1 reports)

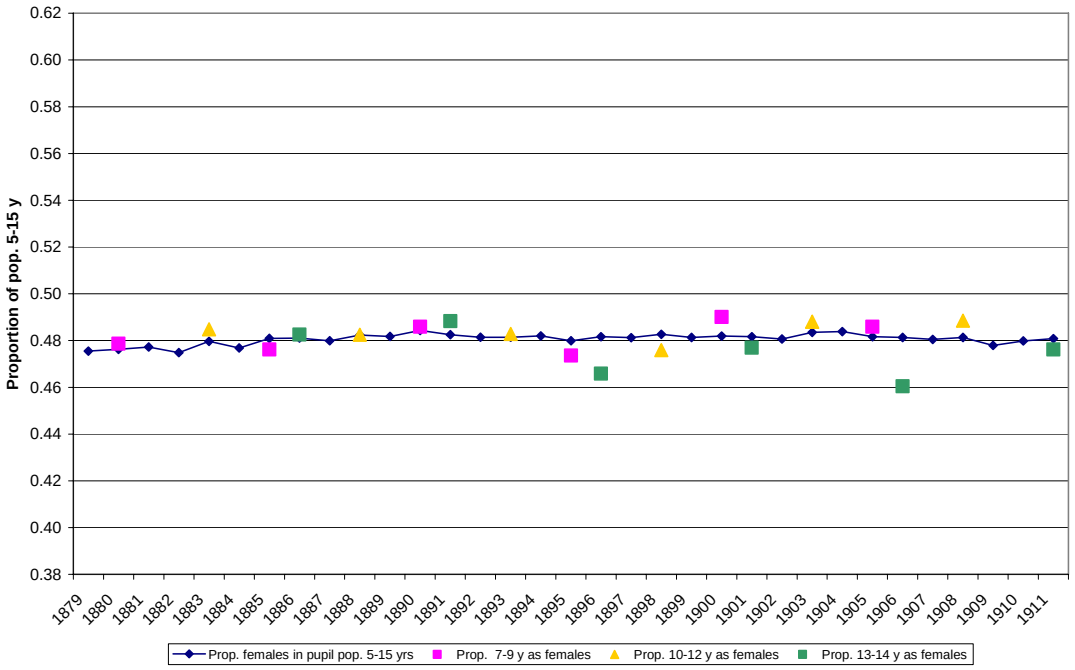


Fig. 60 – North Canterbury Education District: Proportion of females in the total pupil population aged 5-15 y, and the proportion of females in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 22; calculated from E-1 reports)

Table 21 – North Canterbury Education District: Proportion of males in the total pupil population aged 5-15 y and the proportion of males in various age groups for 6 constructed cohorts (see also Fig. 59; calculated from E-1 reports)

Year	Prop. males in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as males	Prop. 10-12 y pupils as males	Prop. 13-14 y pupils as males
1879	0.5245				
1880	0.5238	***Cohort 1***	**0.5213**		
1881	0.5228				
1882	0.5252				
1883	0.5204			**0.5152**	
1884	0.5232				
1885	0.5191	***Cohort 2***	**0.5238**		
1886	0.5189				**0.5174**
1887	0.5201				
1888	0.5176			**0.5175**	
1889	0.5183				
1890	0.5156	***Cohort 3***	**0.5141**		
1891	0.5175				**0.5117**
1892	0.5185				
1893	0.5186			**0.5172**	
1894	0.5180				
1895	0.5201	***Cohort 4***	**0.5264**		
1896	0.5184				**0.5342**
1897	0.5188				
1898	0.5173			**0.5241**	
1899	0.5187				
1900	0.5181	***Cohort 5***	**0.5099**		
1901	0.5184				**0.5231**
1902	0.5193				
1903	0.5165			**0.5119**	
1904	0.5162				
1905	0.5183	***Cohort 6***	**0.5141**		
1906	0.5187				**0.5396**
1907	0.5195				
1908	0.5187			**0.5115**	
1909	0.5221				
1910	0.5202				
1911	0.5192				**0.5238**

Cohort 3 the proportion of males in the 13-14 y age group was greater than the proportion of males in the total pupil population, and in Cohort 4 there were more males in all three age groups than there were males in the total pupil population. Cohort 5 shows the same pattern as that seen for Cohort 3, and Cohort 6 has a pattern

Table 22 – North Canterbury Education District: Proportion of females in the total pupil population aged 5-15 y and the proportion of females in various age groups for 6 constructed cohorts (see also Fig. 60; calculated from E-1 reports)

Year	Prop. females in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as females	Prop. 10-12 y pupils as females	Prop. 13-14 y pupils as females
1879	0.4755				
1880	0.4762	***Cohort 1***	**0.4787**		
1881	0.4772				
1882	0.4748				
1883	0.4796			**0.4848**	
1884	0.4768				
1885	0.4809	***Cohort 2***	**0.4762**		
1886	0.4811				**0.4826**
1887	0.4799				
1888	0.4824			**0.4825**	
1889	0.4817				
1890	0.4844	***Cohort 3***	**0.4859**		
1891	0.4825				**0.4883**
1892	0.4815				
1893	0.4814			**0.4828**	
1894	0.4820				
1895	0.4799	***Cohort 4***	**0.4736**		
1896	0.4816				**0.4658**
1897	0.4812				
1898	0.4827			**0.4759**	
1899	0.4813				
1900	0.4819	***Cohort 5***	**0.4901**		
1901	0.4816				**0.4769**
1902	0.4807				
1903	0.4835			**0.4881**	
1904	0.4838				
1905	0.4817	***Cohort 6***	**0.4859**		
1906	0.4813				**0.4604**
1907	0.4805				
1908	0.4813			**0.4885**	
1909	0.4779				
1910	0.4798				
1911	0.4808				**0.4762**

the same as Cohort 5, although the proportion of males in the oldest age group is considerably less than in Cohort 5.

Because of the reciprocity of the proportion of each gender, the patterns seen for the female cohorts are the converse of the patterns seen for the male cohorts (Fig. 60).

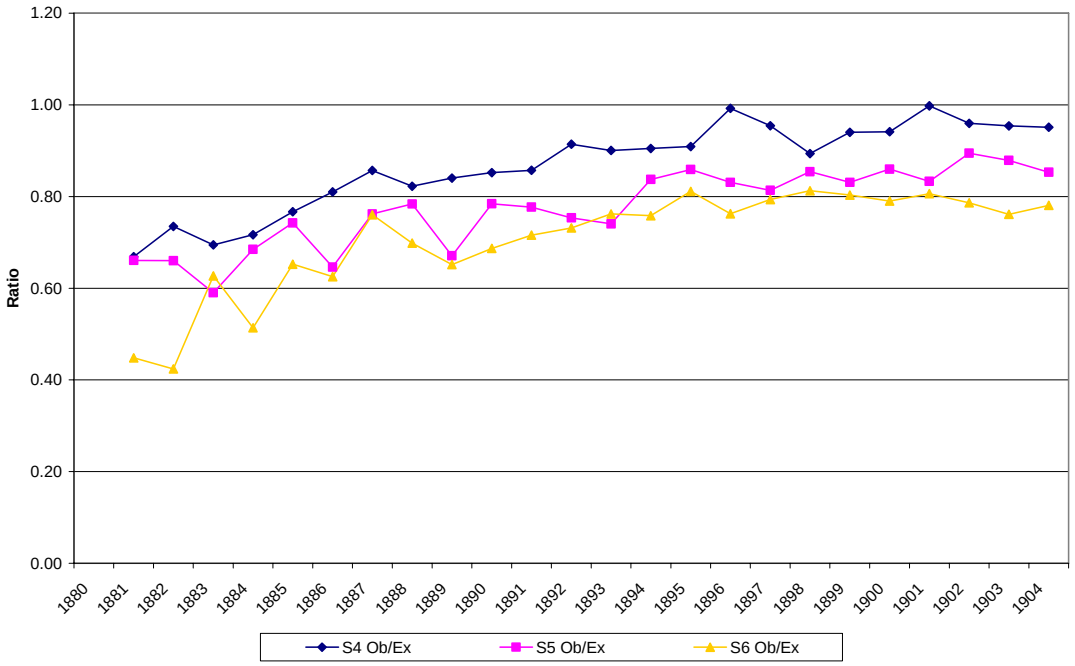


Fig. 61 – North Canterbury Education District: Ratio of observed pupil numbers to expected pupil numbers for Standards 4, 5 and 6 (Source: E-1 Reports)

It is not possible to determine from this study whether it is the males or the females that are causing the changes in the ratios within certain cohorts. A high ratio for males the oldest age group may result from males remaining at school into this age group or from females leaving school before reaching this age group.

Standards levels

The ratio of observed to expected pupil numbers in Standard 4 shows a steady rise, with a few fluctuations, from about 70% in the early 1880s to about 95% by the first years of the new century (Fig. 61). The rise during the 1880s was relatively steep and the rise during the remaining years of the nineteenth century was slower.

For Standard 5 the observed to expected ratio fluctuated markedly during the 1880s although there is an overall trend to a slight increase in the ratio which rises from about 70% in 1881 to just under 80% in 1889 (Fig. 61). The ratio remains relatively static during the first part of the 1890s between about 75% and 80%; during the middle years of the 1890s there was a marked increase in the Standard 5 ratio from about 75% to about 85%. From the mid-1890s the ratio for Standard 5 remained relatively stable, fluctuating around about 85%.

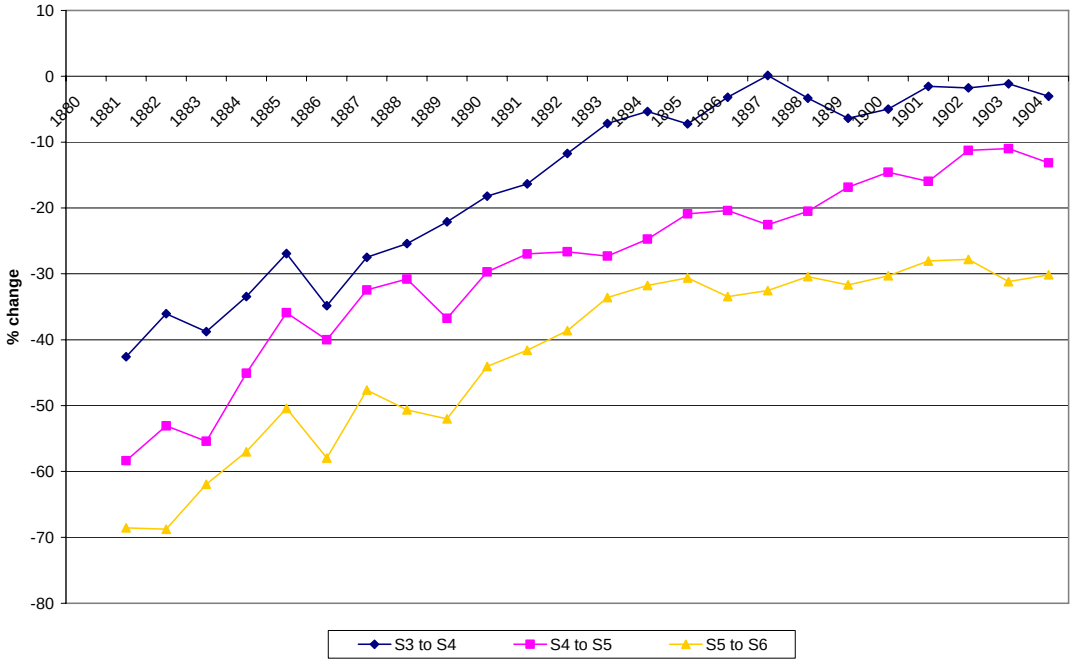


Fig. 62 – North Canterbury Education District: Percentage change between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6, for yearly cohorts starting in Standard 3 (calculated from E-1 reports)

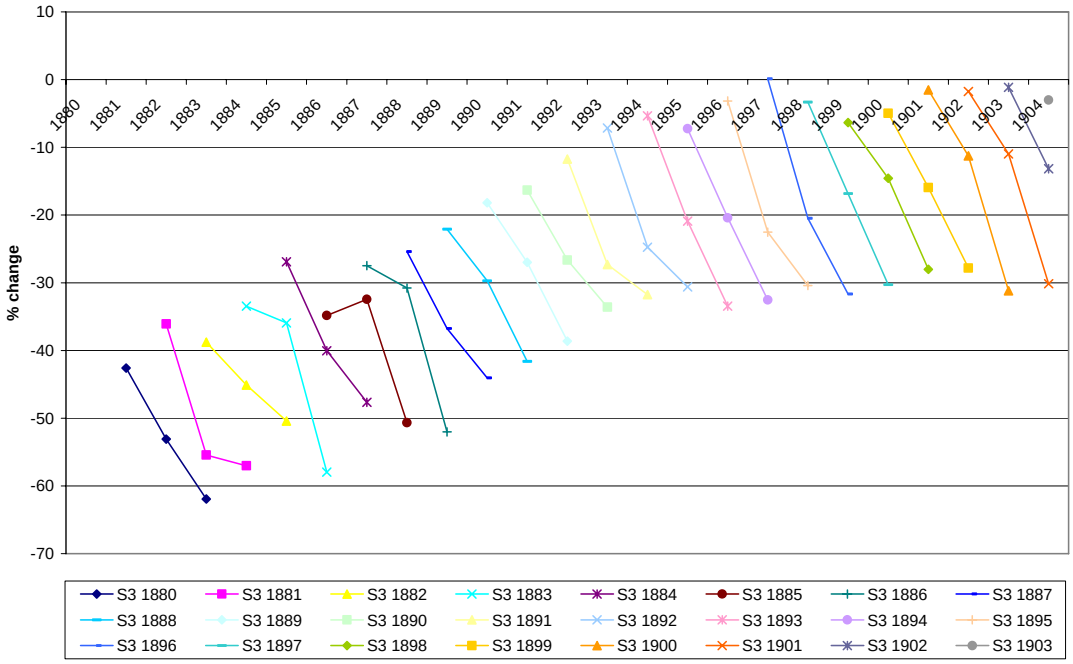


Fig. 63 – North Canterbury Education District: The percentage changes between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6. Each line represents a single constructed cohort starting in Standard 3; the length of the line between points indicates the percentage loss between successive Standards – the longer the line, the greater the loss (calculated from E-1 reports)

The ratio of observed to expected rose quite markedly, although with some fluctuations, during the 1880s, rising from about 45% to over 70%. However, the ratio decreased in the last 2 years of the 1880s to about 65% (Fig. 61). During the 1890s the Standard 6 ratio increased more slowly, rising to just over 80% in 1895. There was then little change in the Standard 6 ratio, which fluctuated around 80%.

The % change between successive Standards shows a steep increase as well as some fluctuations for all three levels during the first half of the 1880s (Fig. 62). From 1886 the % change for Standard 4 shows a steady rise from about 35% to reach about 5% in 1893 and about 0% in 1897, after which the ratio fluctuated slightly just below 5%.

For Standard 5 the % change from 1890 increased steadily but with some plateaus, from about 35% to reach just over 10% by 1902.

For Standard 6, after fluctuating during the early 1880s, the ratio rose quite steeply during the first half of the 1890s, rising from just over 50% to just over 30%. The Standard 6 % change then fluctuated close to 30% for the remaining time.

A study of individual constructed Standard cohorts shows little in the way of a pattern during the 1880s and the first half of the 1890s (Fig. 63). From the mid-1890s, however, a trend emerges with greater loss between Standard 4 and Standard 5 than between Standard 5 and Standard 6. This pattern lasts until the turn of the century, after which the trend tends to reverse, with a greater loss between Standard 5 and Standard 6 than between Standard 4 and Standard 5.

Summary for North Canterbury Education District

There are no gender differences for the 5-6 y and 13-14 y age groups. There are also no large deviations in the derived age cohorts for males and females, although during the late 1890s and into the first decade of the twentieth century there is a tendency for more males in the 13-14 y age group than are seen in the whole pupil population. Similarly, there are fewer females at this time in this age group than in the whole pupil population.

The losses of pupils between Standard 3 and Standard 4 are high during the 1880s, but the losses fall to about 20% by 1890 and fall further to be below 10% by the mid-1890s. During the 1880s the losses from Standard 4 to Standard 5 and from Standard 5 to Standard 6 are variable. During the early 1890s the losses from Standard 4 to Standard 5 and from Standard 5 to Standard 6 are similar but from the mid-1890s until the turn of the century the losses are greater from Standard 4 to Standard 5 than from Standard 5 to Standard 6. After the turn of the century this pattern changes with the losses being greater from Standard 5 to Standard 6 than from Standard 4 to Standard 5.

South Canterbury

Age and gender

The ratio 5-6 y/7-9 y for both males and females fluctuates but both genders follow a similar trend. There is a decline in the ratios during the 1880s, possibly related to a decline in fertility, and then the ratio for both genders, while fluctuating somewhat, remains between 0.5 and 0.6 for the remainder of the time period under consideration.

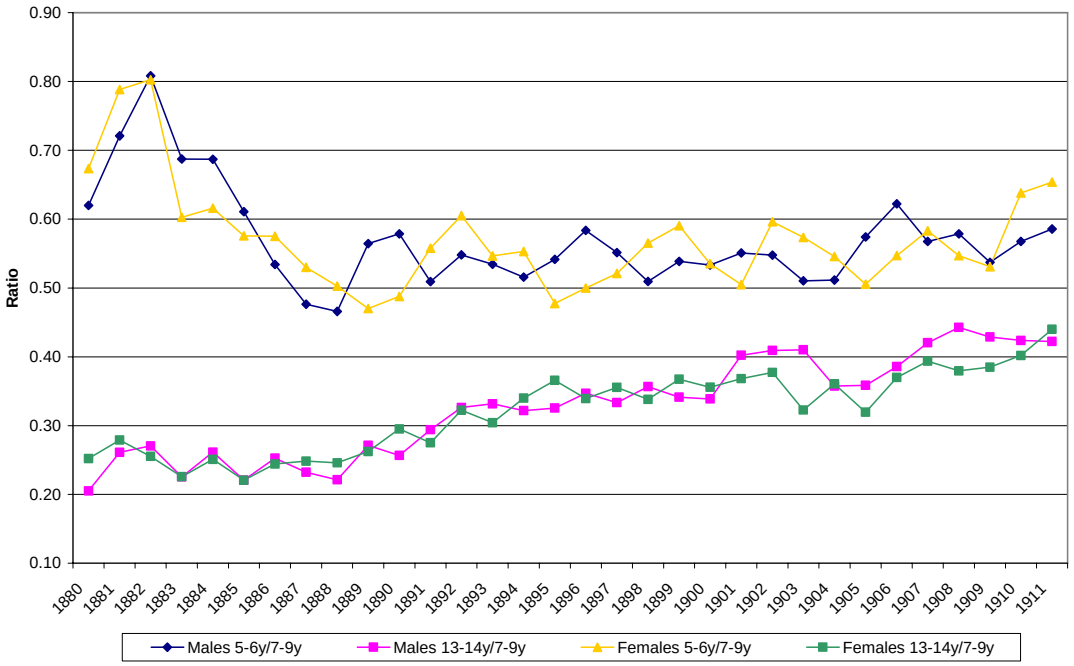


Fig. 64 – South Canterbury Education District: Ratios for male and female pupils aged 5-6 y and 13-14 y in the numerator, and aged 7-9 y in the denominator, 1880–1911 (calculated from various E-1 Reports)

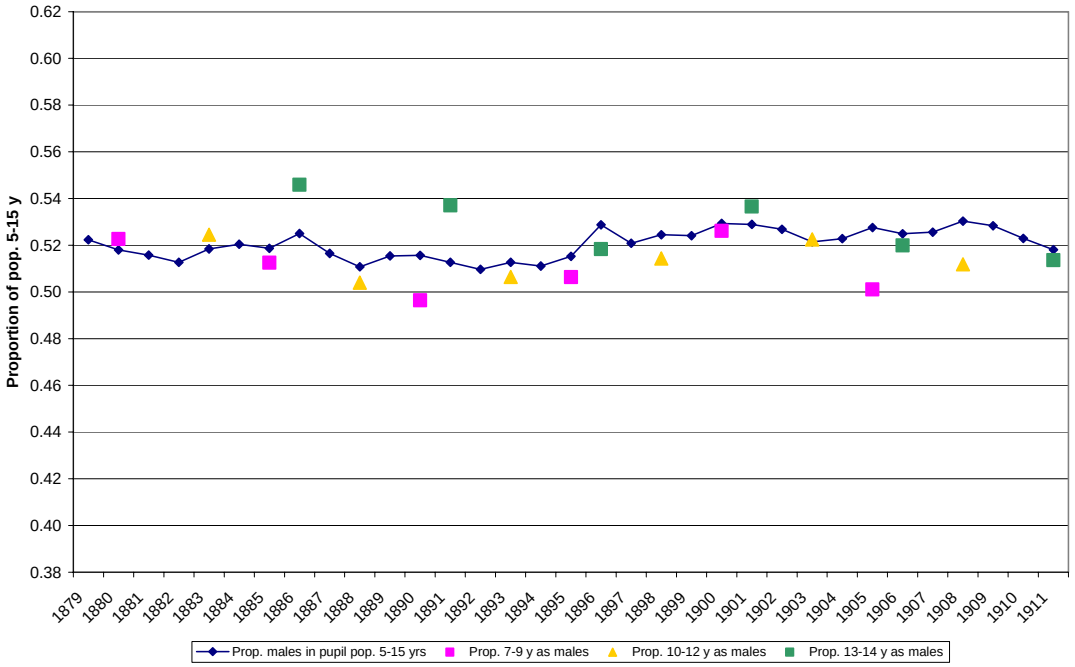


Fig. 65 – South Canterbury Education District: Proportion of males in the total pupil population aged 5-15 y, and the proportion of males in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 23; calculated from E-1 reports)

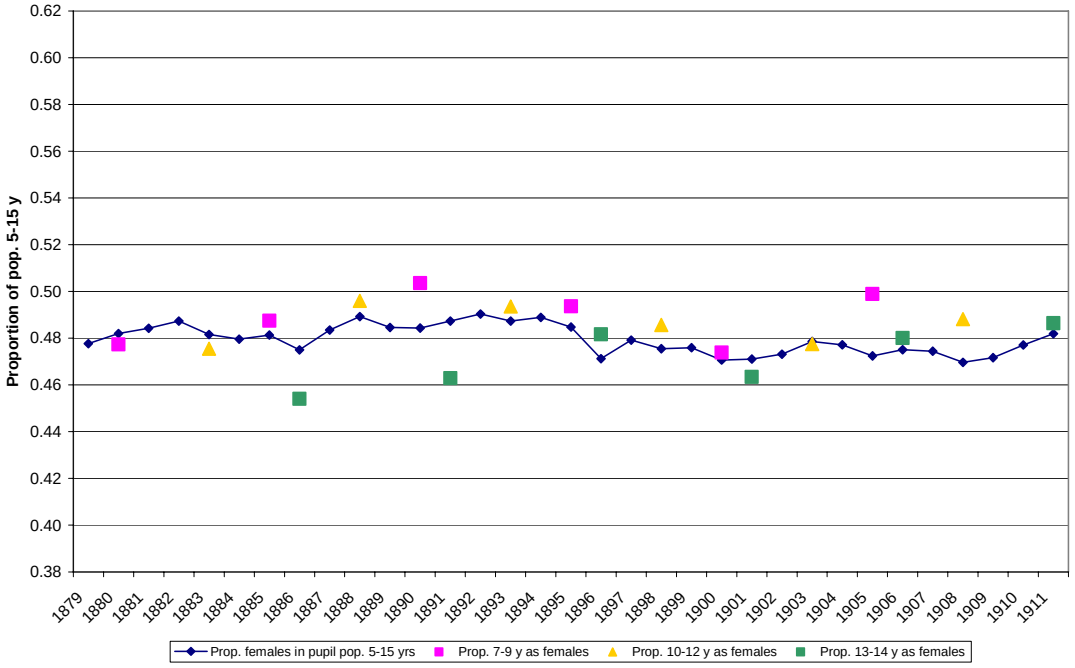


Fig. 66 – South Canterbury Education District: Proportion of females in the total pupil population aged 5-15 y, and the proportion of females in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 24; calculated from E-1 reports)

The ratio for 13-14 y/7-9 y males and females shows little change during the 1880s; this ratio rises for both genders during the early 1890s before plateauing until the turn of the century (Fig. 64). The ratio rises and falls during the first decade of the twentieth century. During the nineteenth century the ratios for males and females are at similar levels. From 1900 the ratio for females is lower than that for males until 1911 when the ratio for females rises above that for males. Leading up to the cross-over in 1911 between male and female ratios, the ratio for females from 1908 increases steadily; at the same time the ratio for males show a slight decrease.

The lower female ratio from the start of the twentieth century suggests that females were tending to leave school at an earlier age than males.

From the constructed individual age cohorts the proportion of each gender in the three age groups was compared to the proportion of each gender in the entire school population. For males, Cohorts 1 and 2 have the proportion of male pupils aged 13-14y well above the proportion of males in the total pupil population (Fig. 65). For Cohorts 2, 3, 4 and 6 the proportion of males in the two lower age groups is below the proportion of males in the overall pupil population. For Cohort 4 the proportion of males in the 13-14y age group is greater than the proportion of males in the total pupil population; but in Cohorts 5 and 6 the proportion of males in the 13-14y age group is below the proportion of males in the total pupil population.

These results suggest that for Cohorts 1 and 2 (and possibly Cohort 4) there were more males aged 13-14 y than would have been expected. By contrast, from the mid-1880s to the turn of the century there were also fewer males age 7-9 y and 10-12 y. These data suggest that males were remaining at school into the 13-14 y age group more than would be expected. The pattern changed for Cohort 6 where all age groups have a lower proportion of males than expected suggesting that males were now leaving school at an earlier age group.

Because of the reciprocity of the gender proportions in each age group, the cohorts for female pupils show the opposite trend to males. During the 1880s the proportion of

Table 23 – South Canterbury Education District: Proportion of males in the total pupil population aged 5-15 y and the proportion of males in various age groups for 6 constructed cohorts (see also Fig. 65; calculated from E-1 reports)

Year	Prop. males in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as males	Prop. 10-12 y pupils as males	Prop. 13-14 y pupils as males
1879	0.5223				
1880	0.5180	***Cohort 1***	**0.5227**		
1881	0.5158				
1882	0.5126				
1883	0.5184			**0.5245**	
1884	0.5204				
1885	0.5186	***Cohort 2***	**0.5125**		
1886	0.5250				**0.5459**
1887	0.5165				
1888	0.5107			**0.5040**	
1889	0.5154				
1890	0.5156	***Cohort 3***	**0.4964**		
1891	0.5127				**0.5371**
1892	0.5097				
1893	0.5127			**0.5064**	
1894	0.5111				
1895	0.5152	***Cohort 4***	**0.5063**		
1896	0.5287				**0.5183**
1897	0.5208				
1898	0.5245			**0.5143**	
1899	0.5241				
1900	0.5293	***Cohort 5***	**0.5262**		
1901	0.5289				**0.5366**
1902	0.5269				
1903	0.5214			**0.5225**	
1904	0.5228				
1905	0.5276	***Cohort 6***	**0.5011**		
1906	0.5249				**0.5199**
1907	0.5256				
1908	0.5303			**0.5118**	
1909	0.5283				
1910	0.5229				
1911	0.5181				**0.5136**

females in the oldest age group 13-14 y is lower than the proportion of females in the total pupil population, suggesting that females in this age group were leaving school earlier than expected (Fig. 66). For Cohorts 3 and 4 there were more younger females attending school aged 7-9 y and 10-12 y than in the proportion of females in the total

Table 24 – South Canterbury Education District: Proportion of females in the total pupil population aged 5-15 y and the proportion of females in various age groups for 6 constructed cohorts (see also Fig. 66; calculated from E-1 reports)

Year	Prop. females in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as females	Prop. 10-12 y pupils as females	Prop. 13-14 y pupils as females
1879	0.4777				
1880	0.4820	***Cohort 1***	**0.4773**		
1881	0.4842				
1882	0.4874				
1883	0.4816			**0.4755**	
1884	0.4796				
1885	0.4814	***Cohort 2***	**0.4875**		
1886	0.4750				**0.4541**
1887	0.4835				
1888	0.4893			**0.4960**	
1889	0.4846				
1890	0.4844	***Cohort 3***	**0.5036**		
1891	0.4873				**0.4629**
1892	0.4903				
1893	0.4873			**0.4936**	
1894	0.4889				
1895	0.4848	***Cohort 4***	**0.4937**		
1896	0.4713				**0.4817**
1897	0.4792				
1898	0.4755			**0.4857**	
1899	0.4759				
1900	0.4707	***Cohort 5***	**0.4738**		
1901	0.4711				**0.4634**
1902	0.4731				
1903	0.4786			**0.4775**	
1904	0.4772				
1905	0.4724	***Cohort 6***	**0.4989**		
1906	0.4751				**0.4801**
1907	0.4744				
1908	0.4697			**0.4882**	
1909	0.4717				
1910	0.4771				
1911	0.4819				**0.4864**

population. The proportion of females in the three age groups in Cohort 5 is close to the proportion of females in the total school population. For Cohort 6 the proportion of females in all three age groups is above the proportion of females in the total

school population. This suggests that either males were leaving school earlier in this cohort or females were remaining at school longer in this cohort.

Standards levels

The ratio of observed to expected pupils in Standard 4 fluctuates during the early and mid-1880s and then remains just above 60% until 1893 when the ratio declines to around 60% (Fig. 67). After 1898 the ratio decreases to reach 46% in 1901 before rising again to just below 60% in 1903. This trend downwards after the turn of the century suggests that more pupils were leaving school before completing Standard 4 than had been the case in the nineteenth century.

The ratio of observed to expected pupils in Standard 5 decreases during the first half of the 1880s and then rises sharply in 1886 before dropping back until 1888 (Fig. 67). The ratio then remained relatively stable until 1893, at about 70%. From 1893 to 1895 the ratio increased to about 90% and then fluctuated between 80% and 90% until 1899. After 1899 the ratio for Standard 5 increased slowly before stabilising at just over 90% in 1902.

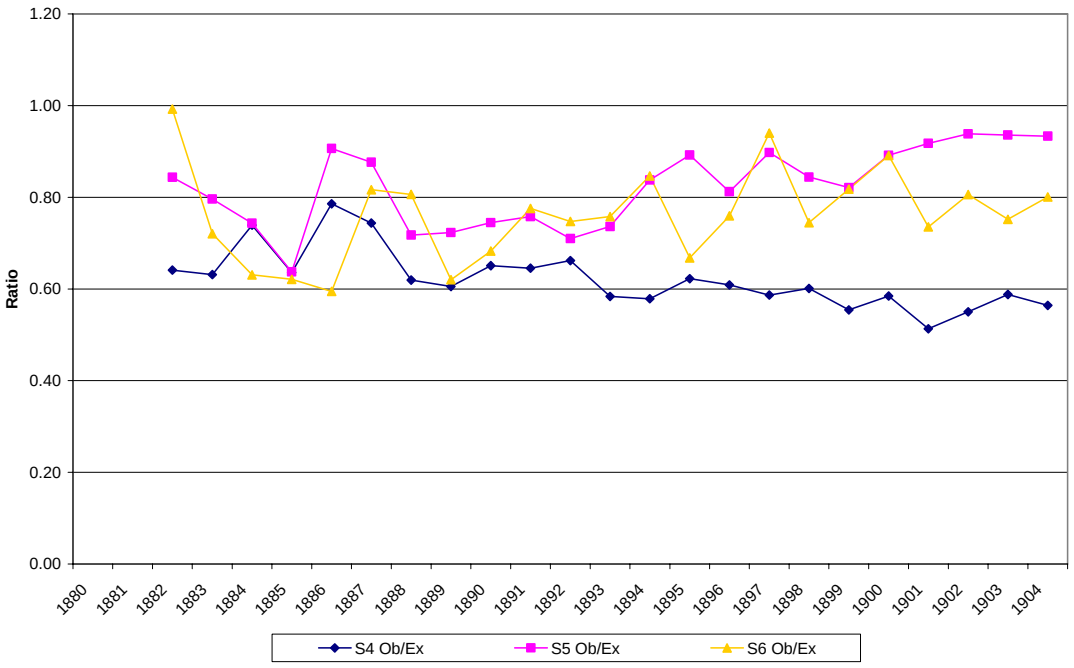


Fig. 67 – South Canterbury Education District: Ratio of observed pupil numbers to expected pupil numbers for Standards 4, 5 and 6 (Source: E-1 Reports)

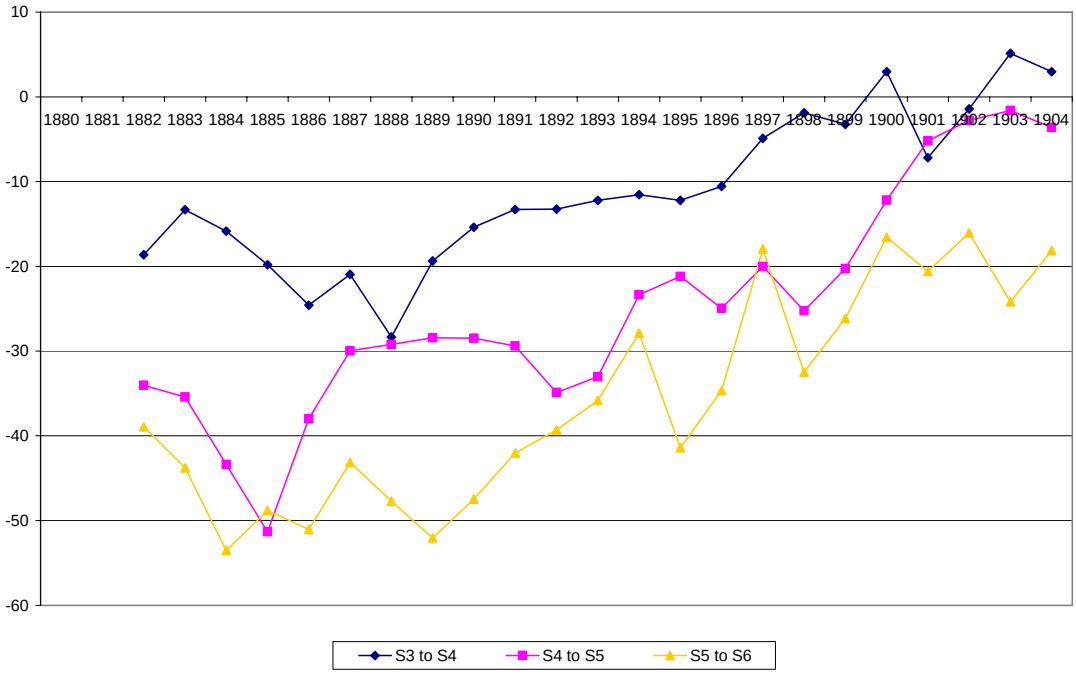


Fig. 68 – South Canterbury Education District: Percentage change between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6, for yearly cohorts starting in Standard 3 (calculated from E-1 reports)

The ratio of observed to expected pupils in Standard 6 fluctuated throughout the nineteenth century, after decreasing during the first half of the 1880s (Fig. 67). There was a brief period of stability in the early 1890s before the ratio once again fluctuated, stabilising after 1902 at close to 80%.

These ratios show an unexpected decline in Standard 4 attendance which could suggest that pupils were leaving school before completing this level of schooling perhaps to undertake employment either from necessity (to help with family finances) or because there was increasing employment opportunities available in this period.

The % change between Standard 3 and Standard 4 shows an initial increase until 1888, from less than 20% to close to 30% loss (Fig. 68). From 1888 to 1890 the loss from Standard 3 to Standard 4 decreased markedly from close to 30% to about 12%. The loss then remained stable at this level until 1895, when the loss again reduced until the turn of the century when there was little loss from Standard 3 to Standard 4.

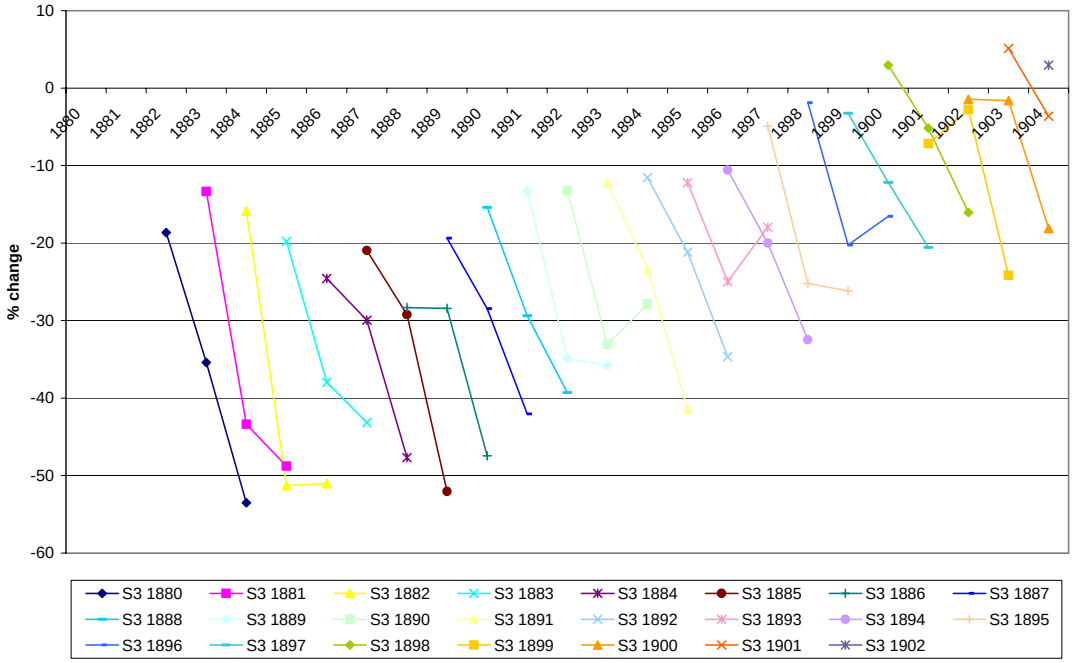


Fig. 69 – South Canterbury Education District: The percentage changes between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6. Each line represents a single constructed cohort starting in Standard 3; the length of the line between points indicates the percentage loss between successive Standards – the longer the line, the greater the loss (calculated from E-1 reports)

After the turn of the century the loss fluctuated, but was never greater than 8%.

The % change from Standard 4 to Standard 5 increased sharply during the early 1880s, dropping from about 35% loss to over 50% loss in 1885 (Fig. 68). The loss then dropped equally sharply, from over 50% in 1885 to 30% in 1887. The loss then stabilised until 1891, dropped slightly again in 1892 and 1893, before rising and fluctuating between 25% and 20% until 1898. After 1898 the loss from Standard 4 to Standard 5 dropped markedly so that by 1901 the loss was only about 5% and remained at this level for the remainder of the period.

The % change from Standard 5 to Standard 6 fluctuated during the 1880s between 40% and 50% loss (Fig. 68). After 1889 the % change decreased markedly until 1894, when it was below 30%. During the second half of the 1890s the % change fluctuated markedly and then reduced by 1900 to below 20%. The % change then fluctuated around 20% loss for the remainder of the period.

The study of individual constructed cohorts shows that until the mid-1880s there was a greater loss between Standard 4 and Standard 5 than between Standard 5 and Standard 6 (Fig. 69). From 1886 to 1889 the pattern changed and the loss was greater between the two highest standards. From 1890 the pattern changed again, with greater loss from Standard 4 to Standard 5 than from Standard 5 to Standard 6; this pattern lasted until 1893. From 1893 to 1896 there was similar loss from both levels. From 1896 to 1900 the loss was greater from Standard 4 to Standard 5 than from Standard 5 to Standard 6. After the turn of the century the loss was once again greater from Standard 5 to Standard 6 than from Standard 4 to Standard 5.

There are few clear patterns for this Education District, although the loss from Standard 3 to Standard 4 shows an initial increase until the mid-1880s and then gradually the loss diminishes over time so that by the end of the nineteenth century there was little loss between these two Standards.

Summary for South Canterbury Education District

The age ratios for this Education District vary without showing a consistent difference between the genders for the 5-6 y and 13-14 y age groups. For the derived age cohorts there is a higher proportion of males in the 13-14 y age group during the later 1880s and early 1890s than is seen for the total pupil population; similarly, the proportion of females is lower at this time. Generally the proportion of males in the 7-9 y and 10-12 y age groups is slightly lower than the proportion of males in the total pupil population during the nineteenth century and, similarly, the opposite is seem for females in these age groups.

During the early 1880s the losses of pupils from Standard 4 to Standard 5 is greater than the losses from Standard 5 to Standard 6. During the late 1880s this pattern is reversed, but the earlier pattern returns during the early 1890s. During the late 1890s the losses from Standard 4 to Standard 5 are similar to the losses from Standard 5 to Standard 6, but just before the turn of the century there is a brief change with losses being greater from Standard 4 to Standard 5 than fro Standard 5 to Standard 6. From the early 1900s the losses from Standard 5 to Standard 6 are greater than from Standard 4 to Standard 5.

Otago

Age and gender

There is little difference between the 5-6 y/7-9 y ratios for males and females. During the early 1880s there is a small decline in both gender ratios, although this is much less marked than in other Education Districts. From the mid-1880s until the beginning of the twentieth century the ratios remain remarkably stable at close to 0.5. After the turn of the century the ratios slowly rise to just below 0.6.

The ratio of males and females 13-14 y/7-9 y is just below 0.3 and shows little change until 1886. After 1886 the ratio for both males and females shows in increase, but the increase is greater for males, rising from 30% in 1886 to about 43% in 1893 and remaining close to 40% until 1898 (Fig. 70). After 1898 the ratio for males decreased until 1905 when it had declined to 35%. In the following two years it increased to close to 45% before dropping back to below 40%.

For females the ratio increased less, rising from about 28% in 1887 to about 35% in 1893. It remained at this level until 1898 and then fluctuated between about 30% and

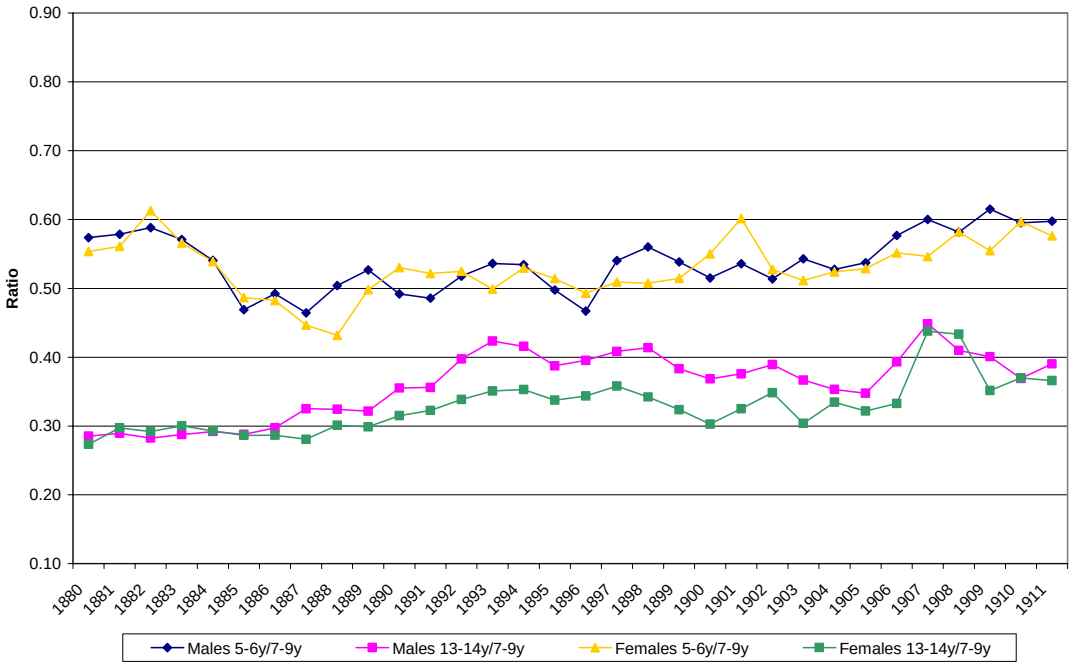


Fig. 70 – Otago Education District: Ratios for male and female pupils aged 5-6 y and 13-14 y in the numerator, and aged 7-9 y in the denominator, 1880–1911 (calculated from various E-1 Reports)

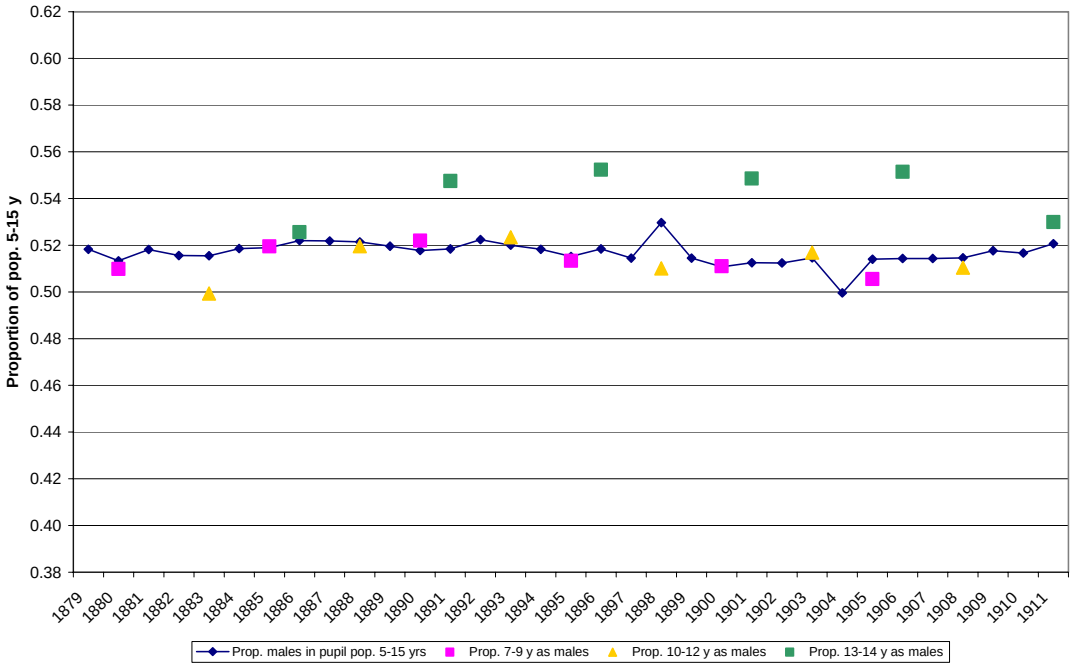


Fig. 71 – Otago Education District: Proportion of males in the total pupil population aged 5-15 y, and the proportion of males in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 25; calculated from E-1 reports)

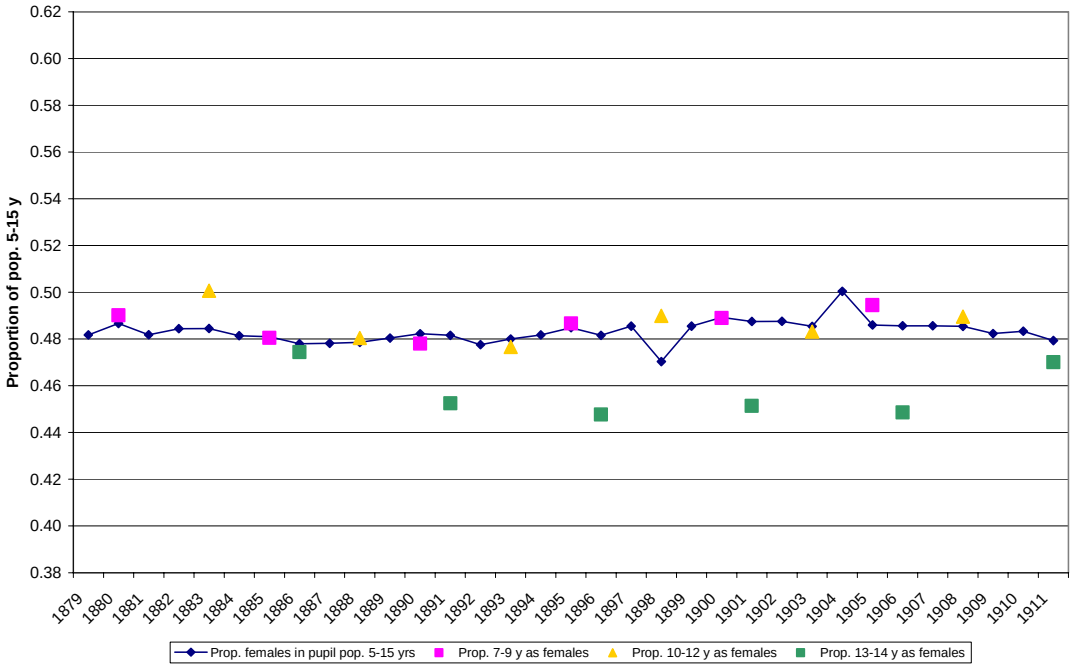


Fig. 72 – Otago Education District: Proportion of females in the total pupil population aged 5-15 y, and the proportion of females in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 26; calculated from E-1 reports)

Table 25 – Otago Education District: Proportion of males in the total pupil population aged 5-15 y and the proportion of males in various age groups for 6 constructed cohorts (see also Fig. 71; calculated from E-1 reports)

Year	Prop. males in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as males	Prop. 10-12 y pupils as males	Prop. 13-14 y pupils as males
1879	0.5183				
1880	0.5133	***Cohort 1***	**0.5098**		
1881	0.5182				
1882	0.5156				
1883	0.5155			**0.4993**	
1884	0.5186				
1885	0.5190	***Cohort 2***	**0.5195**		
1886	0.5220				**0.5256**
1887	0.5219				
1888	0.5214			**0.5196**	
1889	0.5196				
1890	0.5178	***Cohort 3***	**0.5220**		
1891	0.5184				**0.5475**
1892	0.5224				
1893	0.5200			**0.5234**	
1894	0.5182				
1895	0.5151	***Cohort 4***	**0.5133**		
1896	0.5184				**0.5523**
1897	0.5145				
1898	0.5297			**0.5101**	
1899	0.5145				
1900	0.5107	***Cohort 5***	**0.5110**		
1901	0.5125				**0.5486**
1902	0.5124				
1903	0.5146			**0.5168**	
1904	0.4996				
1905	0.5140	***Cohort 6***	**0.5055**		
1906	0.5143				**0.5514**
1907	0.5143				
1908	0.5146			**0.5104**	
1909	0.5177				
1910	0.5167				
1911	0.5207				**0.5299**

35% until 1906. There was a sharp increase between 1906 and 1907 before the ratio returned to a level of about 37%.

Before 1886 there was no difference between the ratio for males and that for females. Between 1886 and 1907 the ratio for females was always lower than the ratio for

Table 26 – Otago Education District: Proportion of females in the total pupil population aged 5-15 y and the proportion of females in various age groups for 6 constructed cohorts (see also Fig. 72; calculated from E-1 reports)

Year	Prop. females in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as females	Prop. 10-12 y pupils as females	Prop. 13-14 y pupils as females
1879	0.4817				
1880	0.4867	***Cohort 1***	**0.4902**		
1881	0.4818				
1882	0.4844				
1883	0.4845			**0.5007**	
1884	0.4814				
1885	0.4810	***Cohort 2***	**0.4805**		
1886	0.4780				**0.4744**
1887	0.4781				
1888	0.4786			**0.4804**	
1889	0.4804				
1890	0.4822	***Cohort 3***	**0.4780**		
1891	0.4816				**0.4525**
1892	0.4776				
1893	0.4800			**0.4766**	
1894	0.4818				
1895	0.4849	***Cohort 4***	**0.4867**		
1896	0.4816				**0.4477**
1897	0.4855				
1898	0.4703			**0.4899**	
1899	0.4855				
1900	0.4893	***Cohort 5***	**0.4890**		
1901	0.4875				**0.4514**
1902	0.4876				
1903	0.4854			**0.4832**	
1904	0.5004				
1905	0.4860	***Cohort 6***	**0.4945**		
1906	0.4857				**0.4486**
1907	0.4857				
1908	0.4854			**0.4896**	
1909	0.4823				
1910	0.4833				
1911	0.4793				**0.4701**

males. This indicates there were fewer older age females than older males. During this time the ratio of younger pupils remained relatively constant and so the difference between males and females in the 13-14 y age group suggests that females may have left school before the age of 13 y in greater numbers than males perhaps for employment reasons or to help in the home.

Constructed age cohorts show that in all cohorts except Cohort 1 the proportion of males in the oldest age group is well above the proportion of males in the total pupil population, although the difference is less in Cohort 6 than in the previous four cohorts (Fig. 71). Except in Cohort 1, the proportion of males in the two younger age groups is close to the proportion of males in the total pupil population.

For females the trends described for males is reversed. For Cohorts 2 to 6 the proportion of females in the oldest age group is considerably lower than the proportion of females in the total pupil population (Fig. 72). The results from these constructed age cohorts suggest that from the mid-1880s until after the turn of the century either females were leaving school before age 13 y or that males were staying at school until they reached 14 y. Because of the reciprocity of the ratios, it is not possible to distinguish which of these is correct.

Standards levels

The ratio of observed to expected pupil numbers for Standard 4 shows only a slight increase over the time period, being mostly around 90% in the nineteenth century and increasing slightly just before the turn of the century, before returning to previous levels and then rising slowly after 1900 to close to 100% by 1904 (Fig. 73).

For Standard 5 the observed to expected ratio initially fluctuates and then remains close to 80% until the early 1890s (Fig. 73). The ratio rises slightly during the early 1890s and then plateaus from the later 1890 at about 90%.

For Standard 6 the ratio fluctuates during the first half of the 1880s, declines slightly from 1887 to 1890, increases slightly from 1890 to 1892 and then remains close to 80% until the turn of the century, after which the ratio fluctuates but trends downwards (Fig. 73).

These results show that through the time period there were only slight changes in the ratio of pupils in each of the three Standards with few obvious trends.

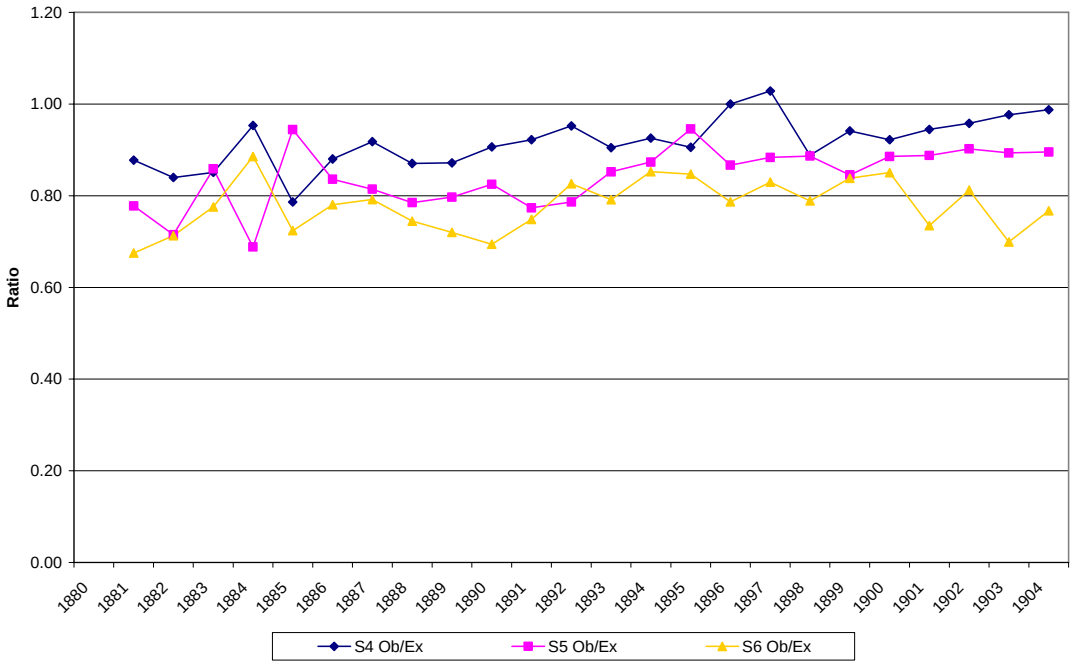


Fig. 73 – Otago Education District: Ratio of observed pupil numbers to expected pupil numbers for Standards 4, 5 and 6 (Source: E-1 Reports)

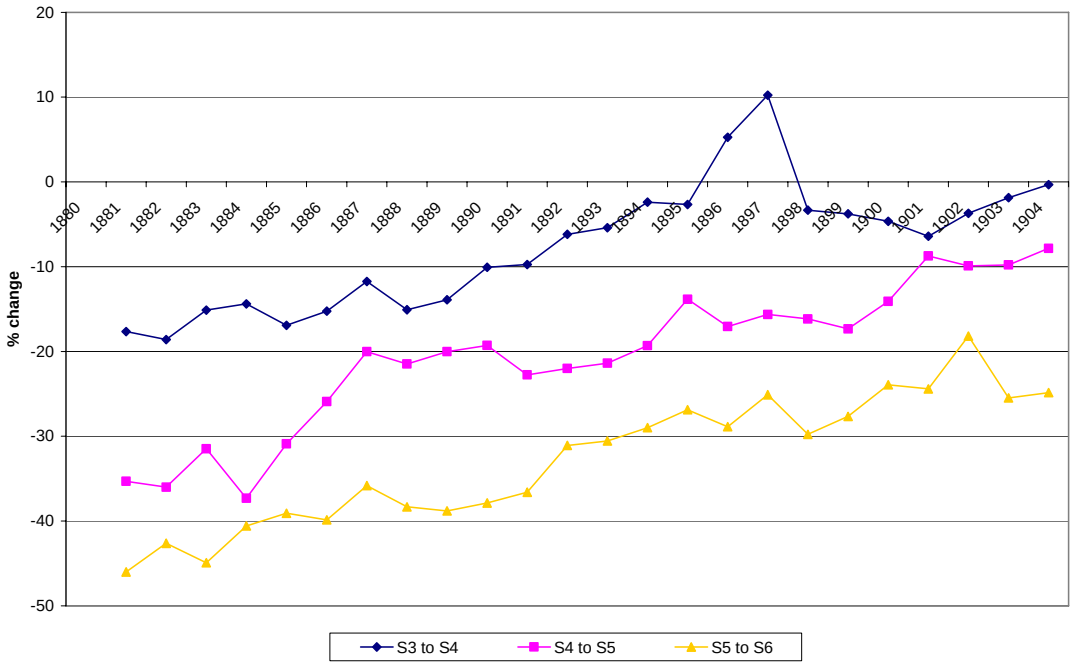


Fig. 74 – Otago Education District: Percentage change between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6, for yearly cohorts starting in Standard 3 (calculated from E-1 reports)

The % change between Standard 3 and Standard 4 decreases slowly during the nineteenth century, starting at about 18% and, apart from a peak in 1896-1897, the % change settles around about 5% (Fig. 74).

For Standard 5 the % change decreases markedly in the mid-1880s from about 35% to about 20% (Fig. 74). This level is maintained until 1894 when there is a slight decrease in the % change to about 17%. The % change reduces again from about 18% in 1899 to less than 10% in 1901, after which the level remains static.

For Standard 6 there is a general trend to a reduction in the % change from Standard 5 to Standard 6, the % change rising from about 45% loss to just under 30% loss (Fig. 74). From the turn of the century the % change decrease a little and fluctuated at about 25%.

Overall these results suggest that over the time period there was a general increase in the retention of pupils from Standard 3 through Standards 4 and Standard 5 to Standard 6.

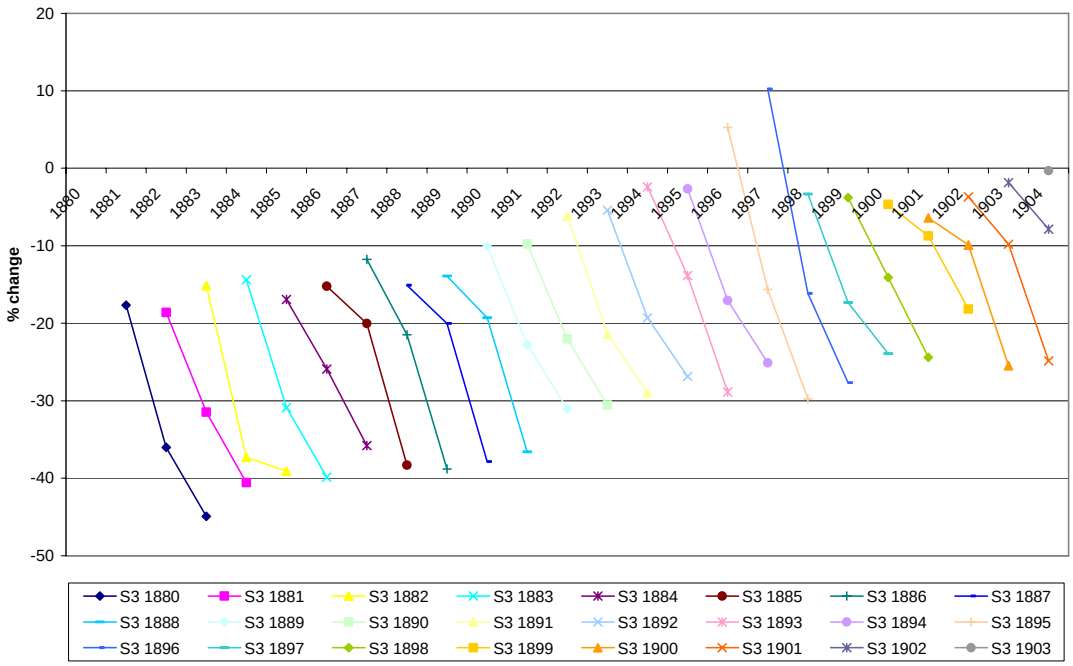


Fig. 75 – Otago Education District: The percentage changes between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6. Each line represents a single constructed cohort starting in Standard 3; the length of the line between points indicates the percentage loss between successive Standards – the longer the line, the greater the loss (calculated from E-1 reports)

Individual constructed cohorts show a change in the pattern of retention between the higher Standards. Until the mid-1880s there was a greater loss between Standard 4 and Standard 5 than between Standard 5 and Standard 6 (Fig. 75). This pattern changed in the second half of the 1880s with greater loss of pupils between Standard 5 and Standard 6 than between Standard 4 and Standard 5. From 1890 until the end of the century the pattern changed again, with greater loss between Standard 4 and Standard 5 than between Standard 5 and Standard 6. After the turn of the century the pattern reversed, with greater loss between the two highest Standards.

Summary for Otago Education District

For the 5-6 y age group there are no clear gender differences. However, there is a clear difference in the gender patterns for the 13-14 y age group, with the ratio for males being greater than that for females from the mid-1880s until the early years of the first decade of the twentieth century. This pattern is also seen in the derived cohorts where the proportion of males in the 13-14 y age group is greater than the proportion of males in the whole pupil population during the 1890s and in the first decade of the twentieth century. Similarly, the proportion of females in this age group is lower than the proportion of females in the total pupil population.

The loss of pupils from Standard 4 to Standard 5 is greater than the loss of pupils from Standard 5 to Standard 6 during the early 1880s, but this pattern is reversed during the late 1880s before the first pattern returns during the 1890s. After the turn of the century the pattern changes once more, with the loss of pupils being greater from Standard 5 to Standard 6 than from Standard 4 to Standard 5.

Southland

Age and gender

Both males and females have a similar pattern for the ratio 5-6 y/7-9 y. An initial decline in the early 1880s is followed by a long period when the ratio for both genders remains relatively constant at just above 0.5, rising slightly from the early 1900s.

The ratios for males and females 13-14 y/7-9 y show a slight decrease in the early 1880s and then rises slightly in the late 1880s (Fig. 76). During the 1890s there is little change for the male and female ratios. From 1898 the male ratio fluctuates

somewhat until it plateaus in 1903 remaining relatively static until 1907 when the ratio increases and then falls again.

For females the ratio is similar to that for males until 1898 (Fig. 76). Between 1897 and 1899 the ratio declines slightly and then fluctuates close to 30% until 1905, after which it rises to settle at about 35%. After 1894 the ratio for females is consistently lower than that for males, suggesting that fewer females remained at school when aged 13-14y than was the case for males.

When constructed age cohorts are considered, there are more 7-9 y males in Cohort 1 than in the total pupil population and fewer 13-14 y males (Fig. 77). For Cohort 2 there were fewer 10-12 y and 13-14 y males than in the total pupil population. For Cohort 3 there were more young (7-9 y) and older (13-14 y) males than in the total pupil population. For Cohort 4 the proportion of males is lower in the 10-12 y age group and higher in the 13-14 y age group. In Cohort 5 the proportion of males in the 13-14 y age group is markedly higher, while the proportion in the two lower age groups is the same as in the total pupil population. For Cohort 6 the proportion of

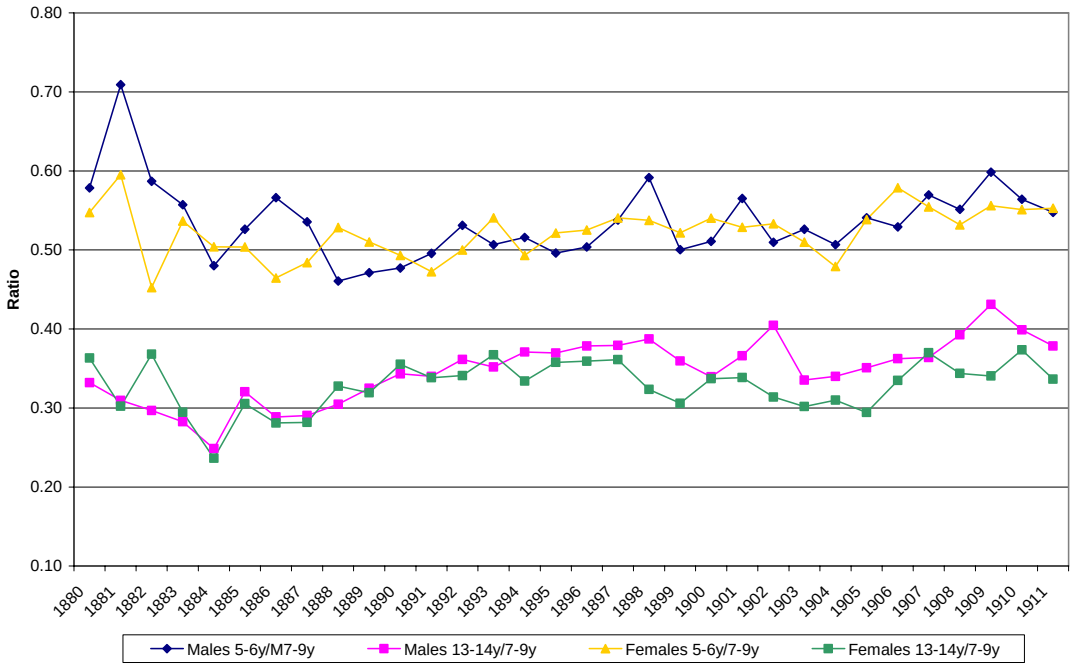


Fig. 76 – Southland Education District: Ratios for male and female pupils aged 5-6 y and 13-14 y in the numerator, and aged 7-9 y in the denominator, 1880–1911 (calculated from various E-1 Reports)

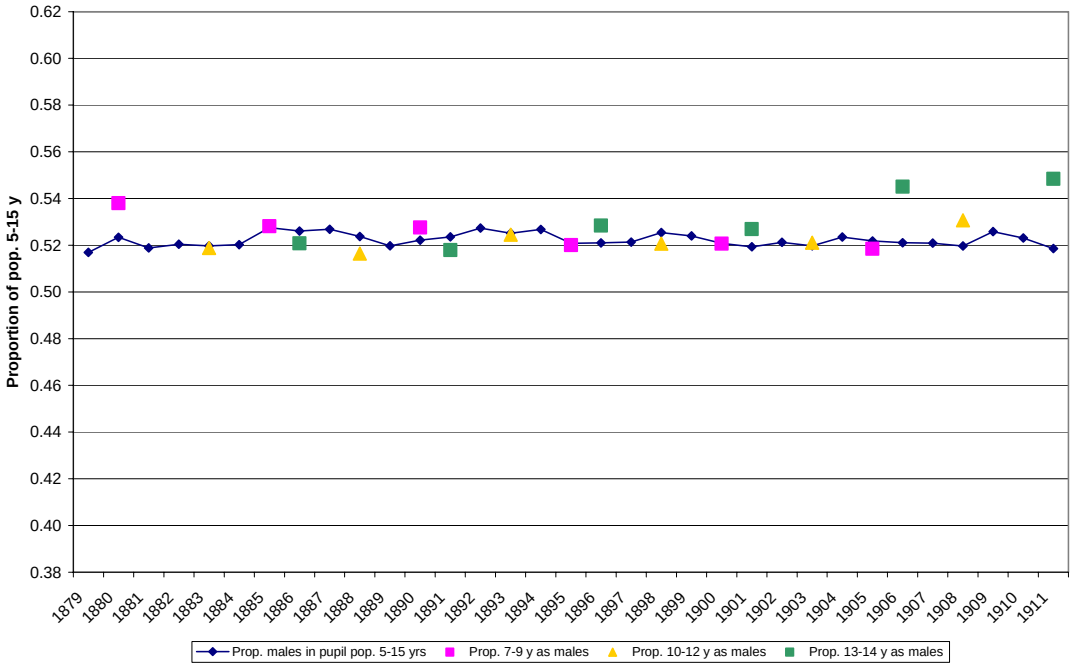


Fig. 77 – Southland Education District: Proportion of males in the total pupil population aged 5-15 y, and the proportion of males in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 27; calculated from E-1 reports)

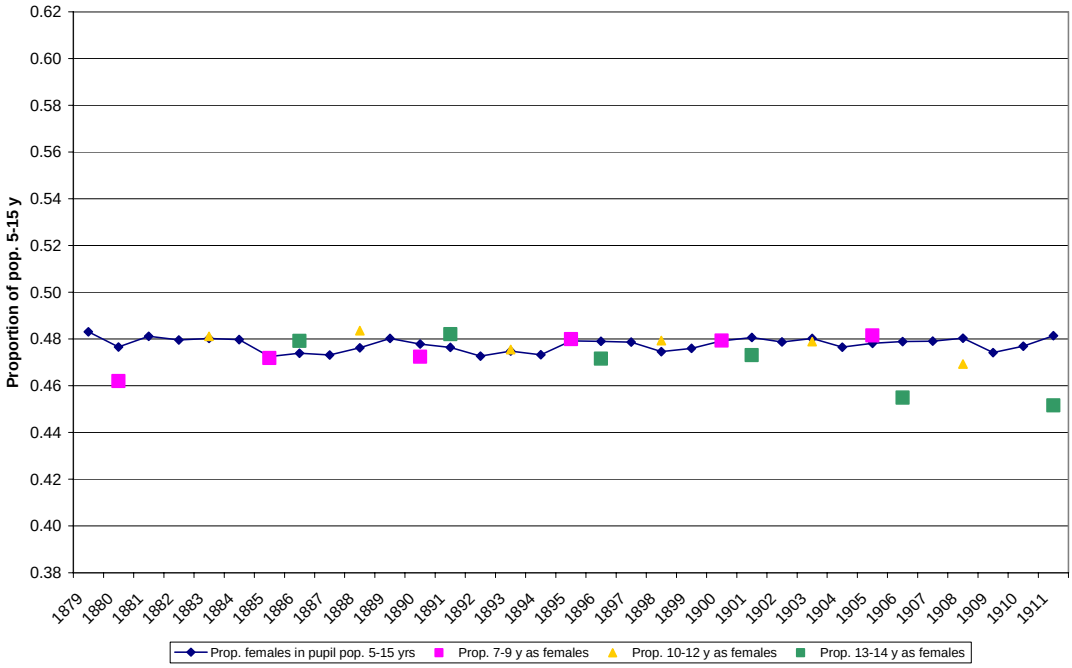


Fig. 78 – Southland Education District: Proportion of females in the total pupil population aged 5-15 y, and the proportion of females in each of 3 age bands for 6 constructed cohorts: Cohort 1 starting 1880, Cohort 2 starting 1885, Cohort 3 starting 1890, Cohort 4 staring 1895, Cohort 5 starting 1900, Cohort 6 starting 1905 (see also Table 28; calculated from E-1 reports)

Table 27 – Southland Education District: Proportion of males in the total pupil population aged 5-15 y and the proportion of males in various age groups for 6 constructed cohorts (see also Fig. 77; calculated from E-1 reports)

Year	Prop. Males in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as males	Prop. 10-12 y pupils as males	Prop. 13-14 y pupils as males
1879	0.5169				
1880	0.5234	***Cohort 1***	**0.5380**		
1881	0.5188				
1882	0.5205				
1883	0.5198			**0.5188**	
1884	0.5202				
1885	0.5275	***Cohort 2***	**0.5282**		
1886	0.5261				**0.5208**
1887	0.5268				
1888	0.5238			**0.5164**	
1889	0.5198				
1890	0.5221	***Cohort 3***	**0.5276**		
1891	0.5236				**0.5179**
1892	0.5274				
1893	0.5251			**0.5245**	
1894	0.5268				
1895	0.5208	***Cohort 4***	**0.5201**		
1896	0.5210				**0.5284**
1897	0.5213				
1898	0.5254			**0.5207**	
1899	0.5240				
1900	0.5208	***Cohort 5***	**0.5207**		
1901	0.5194				**0.5269**
1902	0.5212				
1903	0.5198			**0.5211**	
1904	0.5235				
1905	0.5218	***Cohort 6***	**0.5185**		
1906	0.5211				**0.5451**
1907	0.5209				
1908	0.5197			**0.5307**	
1909	0.5258				
1910	0.5231				
1911	0.5186				**0.5484**

pupils in the youngest age group is only slightly below the pupil population, but the proportion in the two oldest age groups is above that in the total pupil population.

Because of the reciprocity of the data, the trends for females are the reverse of those for males. The difference between the proportion of females in the oldest age group in

Table 28 – Southland Education District: Proportion of females in the total pupil population aged 5-15 y and the proportion of females in various age groups for 6 constructed cohorts (see also Fig. 78; calculated from E-1 reports)

Year	Prop. Females in pupil pop. 5-15 y		Age group		
			Prop. 7-9 y pupils as females	Prop. 10-12 y pupils as females	Prop. 13-14 y pupils as females
1879	0.4831				
1880	0.4766	***Cohort 1***	**0.4620**		
1881	0.4812				
1882	0.4795				
1883	0.4802			**0.4812**	
1884	0.4798				
1885	0.4725	***Cohort 2***	**0.4718**		
1886	0.4739				**0.4792**
1887	0.4732				
1888	0.4762			**0.4836**	
1889	0.4802				
1890	0.4779	***Cohort 3***	**0.4724**		
1891	0.4764				**0.4821**
1892	0.4726				
1893	0.4749			**0.4755**	
1894	0.4732				
1895	0.4792	***Cohort 4***	**0.4799**		
1896	0.4790				**0.4716**
1897	0.4787				
1898	0.4746			**0.4793**	
1899	0.4760				
1900	0.4792	***Cohort 5***	**0.4793**		
1901	0.4806				**0.4731**
1902	0.4788				
1903	0.4802			**0.4789**	
1904	0.4765				
1905	0.4782	***Cohort 6***	**0.4815**		
1906	0.4789				**0.4549**
1907	0.4791				
1908	0.4803			**0.4693**	
1909	0.4742				
1910	0.4769				
1911	0.4814				**0.4516**

Cohorts 1 and 2 contrasts with that in Cohorts 3, 4, 5, and 6 where the proportion of females is always below the proportion of females in the total pupil population (Fig. 78). These data suggest that from the 1890s either there was a trend for males to remain at school into the 13-14 y age group or that there was a trend for females to leave school before reaching this age group.

Standards levels

The ratio of observed to expected for the three highest Standards all fluctuate during the first half of the 1880s (Fig. 79). The ratio changes only slightly over the remaining time period, with the ratio for Standard 5 showing a slight general increase from about 75% to just over 85%.

The % change between Standards shows a general decrease in the loss from Standard 3 to Standard 4 during the nineteenth century until the mid-1890s, rising from a loss of about 30% to a loss of less than 10% (Fig. 80). From the mid-1890s the loss from Standard 3 to Standard 4 settled at less than 10%.

The % change from Standard 4 to Standard 5 fluctuated during the first half of the 1880s and then decreased sharply between 1886 and 1887 from close to 60% to less than 35% (Fig. 80). From 1888 there is a steady decrease in the % change from Standard 4 to Standard 5 until the % change settles at about 10% in 1902.

The % change from Standard 5 to Standard 6 fluctuates markedly during the 1880s (Fig. 80). From 1889 to 1891 there is a marked decrease in the % change, dropping from almost 60% loss to close to 40% loss. During the first half of the 1890s the % change from Standard 5 to Standard 6 remained stable. Between 1895 and 1896 the % change decreased by about 5% and then remained stable until 1899. After 1899 the % change from Standard 5 to Standard 6 became much more erratic, with a tendency towards an overall decrease.

Constructed individual Standard level cohorts show changes in the pattern of pupil loss between successive Standards. Before 1885 the trend is for greater loss between Standard 4 and Standard 5 than between Standard 5 and Standard 6 (Fig. 81). Between 1885 and 1890 the trend is reversed, with greater loss between Standard 5 and Standard 6 than between Standard 4 and Standard 5. From 1890 to 1893 the trend reverses again, and after 1892 the pattern once again shows greater loss between Standard 4 and Standard 5 than between Standard 5 and Standard 6. From 1898 there is once again a reverse of this trend which persists in the twentieth century.

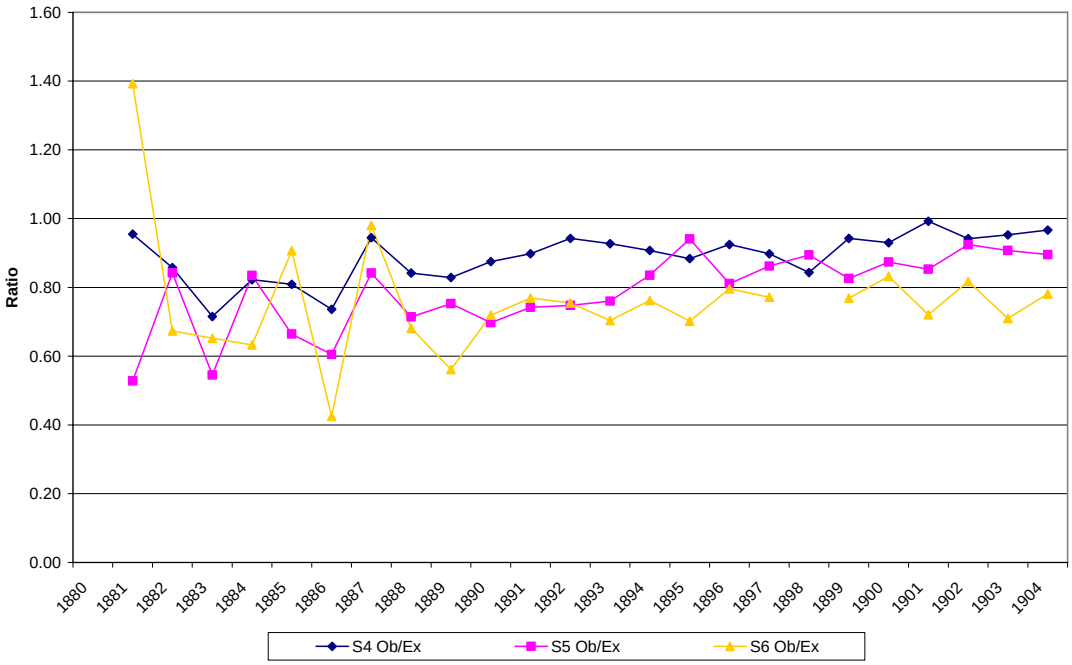


Fig. 79 – Southland Education District: Ratio of observed pupil numbers to expected pupil numbers for Standards 4, 5 and 6 (Source: E-1 Reports)

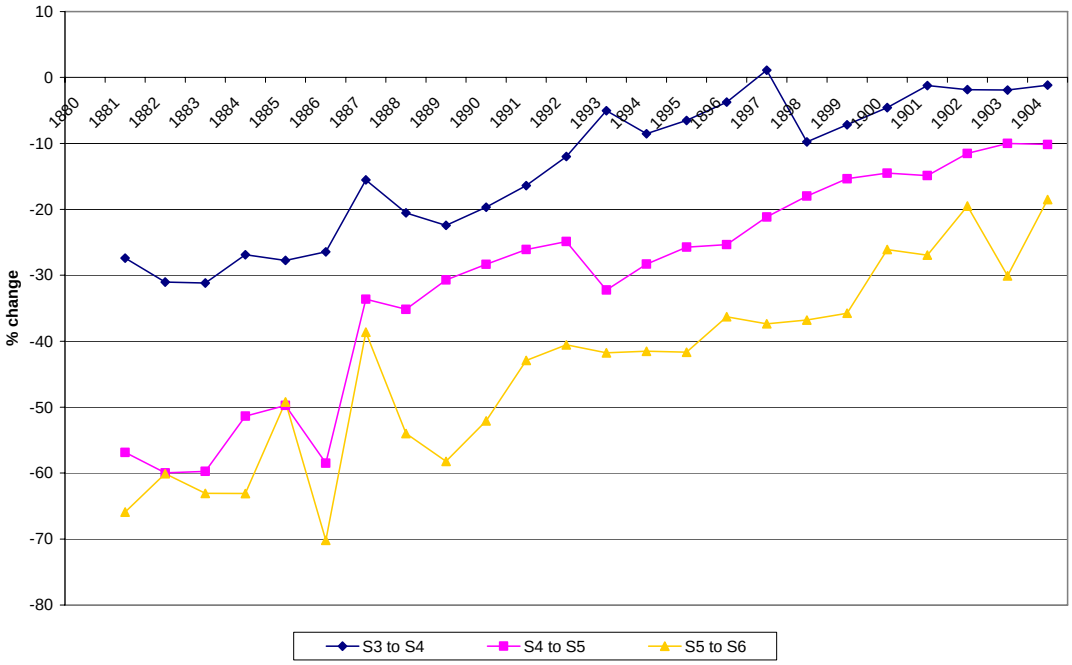


Fig. 80 – Southland Education District: Percentage change between Standards 3 and 4, between Standards 4 and 5, and between Standards 5 and 6, for yearly cohorts starting in Standard 3 (calculated from E-1 reports)

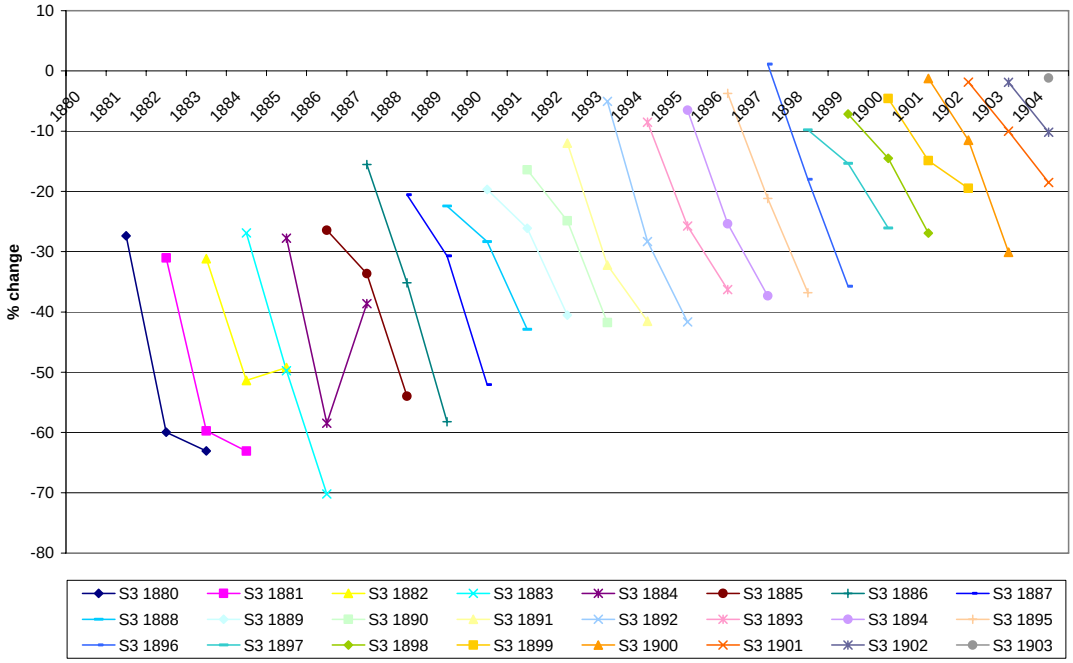


Fig. 81 – Southland Education District: The percentage changes between Standard 3 and 4, between Standard 4 and 5, and between Standard 5 and 6. Each line represents a single constructed cohort starting in Standard 3; the length of the line between points indicates the percentage loss between successive Standards – the longer the line, the greater the loss (calculated from E-1 reports)

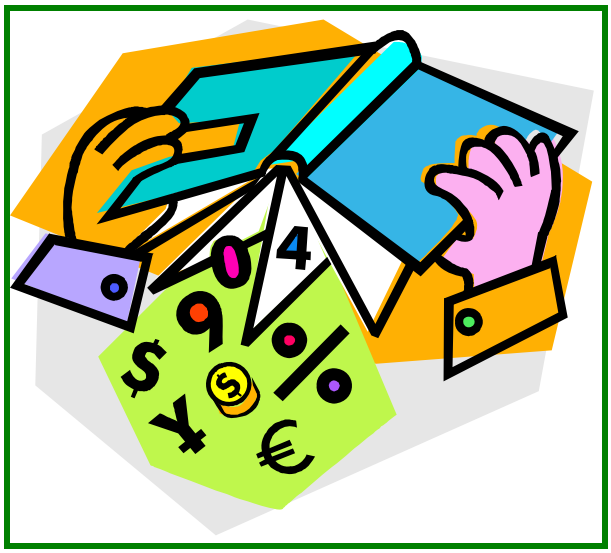
Summary for Southland Education District

No consistent gender differences are seen for the 5-6 y age group during the years under consideration. For the 13-14 y age group the ratio of males is greater than the ratio for females from the mid-1890s until the middle of the first decade of the twentieth century. During the first decade of the twentieth century the proportion of males in the 13-14 y age group is greater than the proportion of males in the whole pupil population and, similarly, the proportion of females in this age group is lower than the proportion of females in the whole pupil population.

Until the late 1880s the loss of pupils was greater between Standard 4 and Standard 5 than between Standard 5 and Standard 6. During the late 1880s and early 1890s this pattern was reversed before the original pattern returned during the early 1890s and remained until the end of the century. From the late 1890s the losses between Standard 4 and Standard 5 and between Standard 5 and Standard 6 were similar.

Chapter 5

Summary of Findings and Conclusions



Chapter 5 Summary of Findings and Conclusions

Summary of findings

1. Age ratios

Two age ratios (5-6 y/7-9 y and 13-14 y/7-9 y) were studied to analyse any trends in increased or decreased attendance of pupils at the new entrant level and at the school leaver level.

For many of the Education Districts the ratio for the younger pupils was about 0.5. If this ratio increases over time it indicates that there were more younger pupils attending school as was seen, for example, in Taranaki towards the turn of the twentieth century. This could indicate that younger children were being sent to school more often than in earlier years and that such children attended school more regularly. In addition, a high ratio for this younger age group may indicate a different structure of the population where a younger population of adults will be in the early years of childbearing thereby swelling the ranks of young school-aged children. This could explain, for example, the high ratios seen in Education Districts on the West Coast of the South Island (particularly Grey and Westland).

Typically in many Education Districts the ratio for younger pupils declined during the 1880s as more pupils attended school with greater regularity, particularly those in the 7-9 y age group (since the pupils in this category comprise the denominator of the calculated ratio). During the 1890s the ratio for the younger pupils generally stabilised in many of the Education Districts.

The results of this study do not indicate significant differences for males and females in school attendance for the younger pupils although the data are often somewhat “noisy” in the early 1880s. In a few Education Districts (for example, Marlborough, Grey, Westland and South Canterbury) the fluctuations continue through most of the late nineteenth century.

For the older school-leaver age group of pupils, many of the Education Districts have a ratio of about 0.35. Over the time period under consideration this ratio often tends to rise slowly until the beginning of the twentieth century. This rise indicates that more

older pupils are remaining at school and/or are attending more regularly through the nineteenth century. However, there are a number of Education Districts where the ratio plateaus or even declines after the beginning of the twentieth century, for example Auckland, Taranaki, Nelson, Grey and North Canterbury.

An additional finding for the ratio 13-14 y to 7-9 y pupils is the gender difference that is clear in some of the Education Districts. For example, in the Auckland Education District the ratio for females is higher than for males throughout the nineteenth century but the ratios cross over at the beginning of the twentieth century and the ratio for males is higher than that for females. These results indicate that either more males than females were remaining at school until the 13-14 y age group, or that more girls were leaving school from this age group, perhaps because they had reached the level of exemption (Standard 5) and so could legitimately leave school either to join the paid workforce or to work in the home without payment. For the Taranaki Education District there are also gender differences similar to those seen in Auckland. In a number of Education Districts some gender differences appear after the beginning of the twentieth century, for example, in Wanganui, Marlborough, North Canterbury and South Canterbury. In the Otago Education District there is a clear gender difference from the mid 1880s through until about 1907 during which time the ratio for males in consistently above that for females for the 13-14 y age group.

2. Male and female age cohorts

In many of the Education Districts the proportion of males in the school population is about 0.52 and thus the proportion of females is about 0.48. These results indicate the there were more males than females in the school population (as has been noted by Cumming, 1981). However, in some Education Districts this pattern does not apply. For example, in Grey the proportion of males during the nineteenth century is consistently below 0.5 and declines even further about the turn of the twentieth century, before rising to reach about 0.52 at the end of the first decade of the twentieth century. The ratio for females in the Grey Education District is the converse of that for males. It is not possible to say from these results whether it is the male pupil population or the female pupil population that is the cause of these gender differences.

The constructed age cohorts show a variety of trends. These cohorts aim to follow the same group of pupils from the 7-9 y age group into the 13-14 y age group and to compare the proportion of each gender in each age group with the overall proportion of each gender in the school population at that time. The greatest variation is seen for the third point for each cohort, i.e., the pupils that are in the 13-14 y age group. The proportion of each gender in the constructed cohorts in this age group is often the furthest from the proportion of each gender in the total pupil population at that time. One pattern that is seen in a number of Education Districts is the lower ratio of 13-14y males in the 1880s and early 1890s (and a corresponding high ratio for females in this age group), but by the first decade of the twentieth century the pattern is reversed and the ratio for males is greater than for females for this age group; this pattern is seen for Auckland and Taranaki. In some other Education Districts the gender difference does not become clear until the end of the nineteenth century when the proportion of males rises above the proportion of males in the total pupil population and conversely the proportion of females drops below that in the total pupil population. This pattern is seen in North Canterbury and Southland. In the Otago Education District this pattern is extended so that the proportion of females in the 13-14 y age group is below that for the total pupil population from the 1890s.

3. Standards ratio for observed to expected pupil numbers

For the time period under consideration, for most Education Districts the trend for the three highest Standards (Standards 4, 5, and 6) is to rise from the late 1880s into the early years of the twentieth century. Commonly the ratio for Standard 4 rises from about 0.8 or so to at least 0.9. For Standard 5 the ratio commonly rises from about 0.7 to about 0.8 or higher. For Standard 6 the ratio often starts at about 0.6 and rises to about 0.7. Some Education Districts show considerable variation in the Standards ratios, for example Standard 4 in Hawke’s Bay varies considerably during the nineteenth century. The same pattern is seen in Taranaki for Standard 5. In some Education Districts there is considerable variation for all three Standards, for example, in Marlborough and Westland. A few Education Districts stand out with a clearly different pattern: in Hawke’s Bay the ratio for Standard 6 is very much lower than in other Education Districts, starting in the 1880s around 0.2 and only reaching 0.6 after the beginning of the twentieth century; and in South Canterbury the ratio for Standard 4 is about 0.7 and declines to below 0.6 by the end of the 1890s.

4. Percentage change in Standards ratio

The percentage change from a Standard to the succeeding Standard is an indication of the extent of loss of pupils between the two Standards. Analyses were carried out separately for the three highest Standards. Since there was loss from most Standards from the number of pupils in the preceding Standard, the results are all shown as negative. However, in most Education Districts there is a general trend for the loss from each Standard to reduce during the nineteenth century (i.e., the graphs of the percentage changes become less negative). In most Education Districts the percentage change from Standard 3 to Standard 4 rises to close to zero by the early 1890s. The loss from Standard 4 to Standard 5 plateaus in the 1890s at around 25% (for example, Auckland and Otago) or continues to rise through into the twentieth century (for example, North Canterbury and Southland). For some Education Districts the loss from successive Standards is quite variable and "noisy", although the general trend tends to be a reduction in the loss of pupils (for example, Westland).

Generally the loss from Standard 5 to Standard 6 is greater than that from Standard 4 to Standard 5 which in turn is greater than the loss from Standard 3 to Standard 4.

5. Percentage change in successive Standards for individual cohorts

The study of successive cohorts passing through the higher Standards reveals a similar pattern in many of the Education Districts. Up to the early 1880s losses tend to be quite variable, with often large losses between Standard 3 and Standard 4. During the 1880s the losses from Standard 5 to Standard 6 are generally greater than the losses from Standard 4 to Standard 5. During the 1890s this trend is reversed, with losses from Standard 4 to Standard 5 being greater than from Standard 5 to Standard 6. After the beginning of the twentieth century the pattern changes again; the losses from Standard 5 to Standard 6 are again greater than the losses from Standard 4 to Standard 5.

Some Education Districts show variations of the described general pattern given in the preceding paragraph. Thus for example, in Hawke's Bay and Grey the losses from Standard 5 to Standard 6 were generally always greater than the losses from Standard 4 to Standard 5. In a number of the South Island Education Districts (for example, South Canterbury, Otago, Southland) in the early 1880s the loss from Standard 4 to

Standard 5 was greater than the loss from Standard 5 to Standard 6. The changes seen in the losses for succeeding cohorts give an indication of the level of attainment at which pupils were leaving school. The changes described here would need to be investigated further but may indicate the influence of changes in the economy and thus employment prospects for school leavers, particularly as a regional level.

Conclusions

1. Age and pupil attendance

For the 5-6 y age group there is generally a rise in the ratio to the 7-9 y age group, which indicates that there were increasing numbers of younger children attending the schools. In some areas in the South Island (for example, the West Coast, Grey, Nelson and Marlborough Education Districts) the ratio of younger pupils is high which may indicate that the populations in these areas had a different structure from those in perhaps more urban and established areas. It may also indicate that the population into these areas consisted of young adults in the early years of childbearing. This may be because of regional economic changes such as coal mining or forestry. In one Education District (Marlborough) the ratio of younger pupils was very low and may indicate a particular regional issue, for example children required to help on dairy farms: since children were only required to attend school from the age of 7 years, young children may have been working on family farms such as milking cows.

For the 13-14 y age group, the rise in this ratio would indicate that increasing numbers of pupils were staying at school longer, leading to an aging of the pupil population. Throughout the country there was a general trend for the ratio of 13-14 y pupils to increase, although in the north of the South Island and on the West Coast the pattern was quite variable.

There were few gender differences revealed in this study for the 5-6 y age group. However, for the 13-14 y age group there were some clear gender differences at certain times. The changes in the gender patterns warrants further study – why, for example, did the ratio for females fall below that for males in a number of Education Districts at the turn of the twentieth century?

The proportion of males to females in the pupil population through the nineteenth century and into the first decade of the twentieth century shows that generally there were more males than females in the pupil population. However, there were exceptions where the proportion of males was less than that of females (for example, Westland and Grey). This gender difference has been explained in the literature as resulting from girls starting school at an older age and attending less regularly (Fry 1985, p.9). Alternatively, the ratios in the various Education Districts may be because of employment of males in mining or forestry, but this would need to be investigated on a regional basis.

The gender balance varies among the various Education Districts for the 13-14 y age group. In many of the Education Districts there appears to be a change in female retention in this older age group around the turn of the twentieth century, with either females leaving school in greater numbers than males or males remaining at school in greater numbers than females. This aspect of school attendance would need more detailed investigation to determine the cause of this change.

2. Standards of schooling

The ratio of observed to expected pupils in the higher Standards shows similar trends in many Education Districts with generally all three Standards showing a rise in the ratio over the time period under consideration. The predominant pattern is for the ratio for Standard 4 to be higher that that for Standard 5 which is higher than for Standard 6. However, there are some variations from this pattern. Some Education Districts show a very low ratio for Standard 6 which, again, could be investigated in light of the economy of a region and employment prospects for school leavers. One Education District (South Canterbury) shows an unusual pattern for the ratio for Standard 4, with this ratio decreasing rather than increasing. Again this region's economy may have influenced either school attendance or school leaving.

The calculated percentage change for the pupils remaining in successive Standards or, in effect, the loss of pupils between successive Standards generally trends upwards, indicating that fewer pupils were leaving between the higher Standards as the nineteenth century drew to a close. However, in some South Island Education Districts (Nelson, Grey, Westland) the trend was for less pupil loss from Standard 3 to

Standard 4 compared to many North Island Districts; and in Westland the loss of pupils from Standard 4 to Standard 5 was also low in the 1890s. The reasons for these differences in pupil loss would need to be further investigated by studying the individual regions. One possible area of future research is the effect of the District High Schools that operated on the West Coast may have had an influence on pupils remaining at school.

The percentage change for individual constructed cohorts (which follow the same pupils through the higher Standards) shows that from the 1880s to the 1890s generally the loss was greater form Standard 5 to Standard 6 than from Standard 4 to Standard 5. However, in the South Island the pattern differs somewhat with the loss from Standard 4 to Standard 5 being greater than the loss from Standard 5 to Standard 6 until the mid 1880s. In the 1890s there was a change in many Education Districts with greater loss from Standard 4 to Standard 5 than from Standard 5 to Standard 6. Around the turn of the twentieth century there is once again a change in the pattern, with losses being greater from Standard 5 to Standard 6 than from Standard 4 to Standard 5. Previous writings have suggested that there was a gradual lengthening of schooling for pupils both by age and also by the Standard level they achieved when they completed their schooling (Shuker, 1987, p.47). The results presented here indicate that the picture may be much more complex, with pupils perhaps leaving school to find employment as economic conditions dictated or as opportunities arose. Thus, at times pupils left school after completing Standard 4 and at other times pupils remained at school through to Standard 5 or even Standard 6. What is unexpected is that at the turn of the twentieth century there was a tendency for pupils to leave school with a lower Standard than in the 1890s.

Considering all the results presented in this thesis, it is clear that there were regional variations in education which need to be investigated further. In addition, the results presented here indicate that there were some perhaps unexpected changes in school attendance at the beginning of the twentieth century: girls aged 13-14 y were leaving in greater numbers than boys of the same age, or boys of this age were remaining at school longer than girls. In addition, there were clear changes in the pattern of pupils leaving school with lower Standards than in the previous decade. Further detailed studies, particularly at the regional level, would be needed to unravel the issues

behind these findings. It is suggested that there may be a link between the economy of a region and the school attendance patterns of pupils and complementary research could be needed to determine the destinations of pupils leaving the schools.

Finally, the combined effects of the 1899 Regulation that raised the level of exemption from Standard 4 to Standard 5 along with the 1901 School Attendance Act (which increased the number of times pupils had to attend school) may have had an effect on school attendance and thus be responsible for at least some of the changes seen around the turn of the century. How these changes affected school populations in various Education District may have varied and would require a detailed study of individual Education Districts.

Thus, further regional investigations could be conducted at the Education District level to determine the possible causes of the changes in the patterns of school attendance over the time period considered in this study. Of particular interest would be the period around the turn of the twentieth century, where there are clear changes in patterns of school attendance in many of the Education Districts. This period would warrant close study considering a number of aspects as noted above, covering legislation and regulations, employment prospects for school leavers, and social considerations such as views on the changing role and position of women in society.

Summary of conclusions and suggestions for further research

The results of the present study indicate that in most of the Education Districts, and thus in most areas of New Zealand, there were changes in the patterns of school attendance around the beginning of the twentieth century. Trends seen in all or most of the Education Districts may need to be explained on a nation-wide basis rather than on a regional basis. The various aspects of employment of school leavers would need to be studied along with possible social changes such as the notion of the “cult of domesticity” as outlined by some writers (Tennant, 1977; Novitz 1982). Thus, the patterns of school attendance and school retention must be explained in the context of the times.

The change in the exemption level in 1899 (which came into operation in 1900) may have accounted for some of the changes seen in Standards retention of pupils and the change in the pattern of retention seen around the turn of the twentieth century. This change in retention pattern, with lower percentage losses of pupils from Standard 4 to Standard 5 than from Standard 5 to Standard 6, was found in about half of the Education Districts (Auckland, Hawke's Bay, Wanganui, Wellington, North Canterbury, South Canterbury, Otago), but was not seen in the remaining Education Districts (Taranaki, Nelson, Grey, Westland, Southland).

The suggestion is made that the raising of the level of exemption had a much more noticeable effect of school pupil retention that the earlier legislation relating to how frequently pupils were required to attend school. This is the point that has been suggested by McKenzie (1982) and others, who note that the pattern of pupil attendance at schools preceded any changes in legislation. However, for some Education Districts different factors appear to have been operating and this may have been because of the type of employment available to school leavers in these regions; for example, school leavers may have worked principally on family farms of in family businesses if there were few industrial or professional jobs available.

In summary, the years at the beginning of the twentieth century need to be studied in more detail with employment opportunities for school leavers in various regions of New Zealand being a crucial part of this research. As part of this research, a study of the different opportunities for males and females must be considered along with variations in different regions.

Chapter 6

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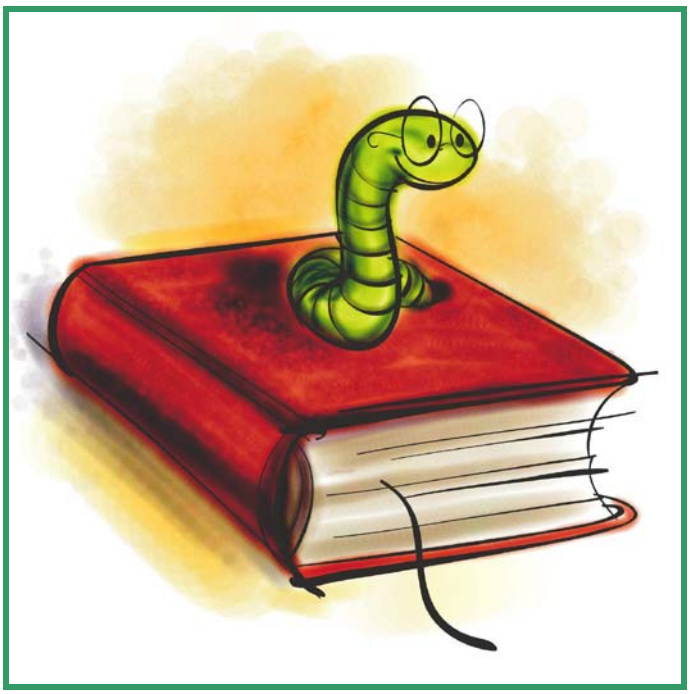

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Appendices

Appendix 1.1 – Auckland Education District raw age data and gender ratios for 7-9 y age groups (source E1 reports)

No. pupils by age												
		1879	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***
Under 5 y	**Males**	33	0									
	Females	17	0									
	Total	50	0									
5-6 y	**Males**	1693	1767	1853	1940	1850	2016	2158	2100	1897	2000	2048
	Females	1464	1530	1620	1572	1644	1888	1972	1899	1727	1748	1769
	Total	3157	3297	3473	*3512*	3494	3904	4130	3999	3624	3748	3817
7-9 y	**Males**	2699	2835	3009	2983	3320	3562	3843	3969	4016	4007	4013
	Females	2383	2518	2562	2674	2946	3094	3490	3600	3767	3674	3743
	Total	5082	5353	5571	5657	6266	6656	7333	7569	7783	7681	7756
10-12 y	**Males**	2187	2345	2493	2485	2590	2808	3025	3179	3540	3775	3745
	Females	1982	2194	2371	2368	2474	2550	2798	3001	3112	3412	3476
	Total	4169	4539	4864	4853	5064	5358	5823	6180	6652	7187	7221
13-14 y	**Males**	620	722	788	771	869	949	1009	1096	1135	1213	1228
	Females	630	754	790	932	1009	1076	1133	1079	1223	1220	1219
	Total	1250	1476	1578	1703	1878	2025	2142	2175	2358	2433	2447
Over 15 y	**Males**	102	118	115	125	156	157	176	217	245	212	201
	Females	149	156	229	251	262	289	299	329	339	252	242
	Total	251	274	344	376	418	446	475	546	584	464	443
All ages	**Males**	7334	7787	8258	8304	8785	9492	10211	10561	10833	11207	11235
	Females	6625	7152	7572	7797	8335	8897	9692	9908	10168	10306	10449
	Total	13959	14939	15830	16101	17120	18389	19903	20469	21001	21513	21684
All ages 5 y & over	**Males 5 y & over**	7301	7787	8258	8304	8785	9492	10211	10561	10833	11207	11235
	Females 5 y & over	6608	7152	7572	7797	8335	8897	9692	9908	10168	10306	10449
	Total 5 y & over	13909	14939	15830	16101	17120	18389	19903	20469	21001	21513	21684
All 5-15 y	**Males 5-15 y**	7199	7669	8143	8179	8629	9335	10035	10344	10588	10995	11034
	Females 5-15 y	6459	6996	7343	7546	8073	8608	9393	9579	9829	10054	10207
	Total 5-15 y	13658	14665	15486	15725	16702	17943	19428	19923	20417	21049	21241

Appendix 1.1 continued (2)

		1890	*1891*	*1892*	*1893*	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	2087	2104	2178	2213	2264	2254	2385	2576	2540	2617	2598
	Females	1861	1896	1944	2004	2056	2071	2172	2241	2236	2330	2398
	Total	3948	4000	4122	4217	4320	4325	4557	4817	4776	4947	4996
7-9 y	**Males**	4124	4178	4328	4356	4506	4624	4751	4947	4921	4999	4962
	Females	3715	3791	3910	4058	4146	4277	4448	4553	4445	4397	4473
	Total	7839	7969	8238	8414	8652	8901	9199	9500	9366	9396	9435
10-12 y	**Males**	3852	3842	3945	4134	4271	4509	4566	4788	4760	4891	4890
	Females	3685	3707	3714	3813	3959	4145	4318	4452	4490	4589	4549
	Total	7537	7549	7659	7947	8230	8654	8884	9240	9250	9480	9439
13-14 y	**Males**	1291	1361	1387	1448	1550	1551	1743	1776	1789	1847	1894
	Females	1321	1390	1519	1593	1625	1570	1639	1774	1736	1703	1674
	Total	2612	2751	2906	3041	3175	3121	3382	3550	3525	3550	3568
Over 15 y	**Males**	203	202	206	219	247	253	240	241	281	275	283
	Females	240	278	340	416	395	340	345	335	359	366	329
	Total	443	480	546	635	642	593	585	576	640	641	612
All ages	**Males**	11557	11687	12044	12370	12838	13191	13685	14328	14291	14628	14627
	Females	10822	11062	11427	11884	12181	12403	12922	13355	13266	13385	13418
	Total	22379	22749	23471	24254	25019	25594	26607	27683	27557	28013	28045
All ages 5 y & over	**Males 5 y & over**	11557	11687	12044	12370	12838	13191	13685	14328	14291	14628	14627
	Females 5 y & over	10822	11062	11427	11884	12181	12403	12922	13355	13266	13385	13418
	Total 5 y & over	22379	22749	23471	24254	25019	25594	26607	27683	27557	28013	28045
All 5-15 y	**Males 5-15 y**	11354	11485	11838	12151	12591	12938	13445	14087	14010	14354	14344
	Females 5-15 y	10582	10784	11087	11468	11786	12063	12577	13020	12907	13019	13094
	Total 5-15 y	21936	22269	22925	23619	24377	25001	26022	27107	26917	27373	27438

Appendix 1.1 continued (3)

		1901	*1902*	*1903*	*1904*	*1905*	*1906*	*1907*	*1908*	*1909*	*1910*	*1911*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	2613	2615	2809	2951	3132	3210	3232	3488	3981	3958	4216
	Females	2430	2364	2523	2659	2840	2939	2989	3198	3656	3547	3801
	Total	5043	4979	5332	5610	5972	6149	6221	6686	7637	7505	8017
7-9 y	**Males**	5146	5108	5257	5327	5631	5828	6050	6445	6750	6958	7461
	Females	4654	4703	4733	4868	5077	5291	5535	5992	6228	6545	7098
	Total	9800	9811	9990	10195	10708	11119	11585	12437	12978	13503	14559
10-12 y	**Males**	4875	5043	5191	5379	5442	5602	5642	6177	6376	6445	6882
	Females	4457	4461	4624	4822	4973	4978	5037	5518	5806	5902	6358
	Total	9332	9504	9815	10201	10415	10580	10675	11696	12182	12347	13240
13-14 y	**Males**	1909	1976	1900	2013	2200	2176	2262	2455	2501	2926	2945
	Females	1728	1769	1651	1635	1777	1860	1866	1945	2063	2440	2452
	Total	3637	3745	3551	3648	3977	4036	4128	4400	4564	5366	5397
Over 15 y	**Males**	294	259	255	297	311	300	265	283	261	475	472
	Females	281	286	315	256	256	271	296	309	247	392	364
	Total	575	545	570	553	567	571	561	592	508	867	791
All ages	**Males**	14837	15001	15412	15967	16716	17116	17451	18848	19869	20762	21976
	Females	13550	13583	13846	14240	14923	15339	15723	16962	18000	18826	20073
	Total	28387	28584	29258	30207	31639	32455	33174	35810	37869	39588	42049
All ages 5 y & over	**Males 5 y & over**	14837	15001	15412	15967	16716	17116	17451	18848	19869	20762	21976
	Females 5 y & over	13550	13583	13846	14240	14923	15339	15723	16962	18000	18826	20073
	Total 5 y & over	28387	28584	29258	30207	31639	32455	33174	35810	37869	39588	42049
All 5-15 y	**Males 5-15 y**	14543	14742	15157	15670	16405	16816	17186	18565	19608	20287	21504
	Females 5-15 y	13269	13297	13531	13984	14667	15068	15427	16653	17753	18434	19709
	Total 5-15 y	27812	28039	28688	29654	31072	31884	32613	35218	37361	38721	41213

Appendix 1.2 – Auckland Education District gender age ratios for 5-6 y age groups and 13-14 y age group to 7-9 y age group (source E1 reports)

Age ratios																
Males	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***
5-6 y/7-9 y	0.6158	0.6504	0.5572	0.5660	0.5615	0.5291	0.4724	0.4991	0.5103	0.5061	0.5036	0.5032	0.5080	0.5024	0.4875	0.5020
13-14 y/7-9 y	0.2619	0.2585	0.2617	0.2664	0.2626	0.2761	0.2826	0.3027	0.3060	0.3130	0.3258	0.3205	0.3324	0.3440	0.3354	0.3669
Females	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***
5-6 y/7-9 y	0.6323	0.5879	0.5580	0.6102	0.5650	0.5275	0.4585	0.4758	0.4726	0.5009	0.5001	0.4972	0.4938	0.4959	0.4842	0.4883
13-14 y/7-9 y	0.3084	0.3485	0.3425	0.3478	0.3246	0.2997	0.3247	0.3321	0.3257	0.3556	0.3667	0.3885	0.3926	0.3919	0.3671	0.3685

Males	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.5207	0.5162	0.5235	0.5236	0.5078	0.5119	0.5343	0.5540	0.5562	0.5508	0.5342	0.5412	0.5898	0.5688	0.5651
13-14 y/7-9 y	0.3590	0.3635	0.3695	0.3817	0.3710	0.3868	0.3614	0.3779	0.3907	0.3734	0.3739	0.3809	0.3705	0.4205	0.3947
Females	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.4922	0.5030	0.5299	0.5361	0.5221	0.5027	0.5331	0.5462	0.5594	0.5555	0.5400	0.5337	0.5870	0.5419	0.5355
13-14 y/7-9 y	0.3896	0.3906	0.3873	0.3742	0.3713	0.3761	0.3488	0.3359	0.3500	0.3515	0.3371	0.3246	0.3312	0.3728	0.3454

Appendix 1.3 – Auckland Education District raw Standards level data and pass/fail rates (source E1 reports)

	1879	*1880*	*1881*	*1882*	*1883*	*1884*	*1885*	*1886*	*1887*	*1888*	*1889*	*1890*	*1891*	*1892*
Total no.	13959	14939	15830	16101	17120	18389	19903	20469	21001	21513	21684	22379	22749	23471
Total males	7334	7787	8258	8304	8785	9492	10211	10561	10833	11207	11235	11557	11687	12044
Total females	6625	7152	7572	7797	8335	8897	9692	9908	10168	10306	10449	10822	11062	11427
Total below Std 1	3299	3737	4051	4489	4448	5044	5608	5661	5578	5938	6106	6219	6302	5666
Males below Std 1	1770	2001	2177	2425	2416	2745	3011	3033	2904	3176	3314	3387	3417	3039
Females below Std 1	1529	1736	1874	2064	2032	2299	2597	2628	2674	2762	2792	2832	2885	2627
Below Std 1 pass rate	n/a	n/a												
Below Std 1 fail rate	n/a	n/a												
Total Std 1	3826	3660	3705	3492	4007	3945	3858	3623	3543	3449	3455	3368	3411	3828
Males Std 1	2036	1951	1977	1862	2121	2049	2039	1896	1938	1821	1740	1753	1783	2046
Females Std 1	1790	1709	1728	1630	1886	1896	1819	1727	1605	1628	1715	1615	1628	1782
Std 1 pass rate of presented	n/a	0.75	0.794	0.779	0.736	0.79	0.722	0.864	0.9	0.9	0.917	0.928	0.923	0.933
Std 1 pass rate of total Std 1									0.688	0.691	0.696	0.774	0.758	0.808
Std 1 fail rate of presented	n/a	0.25	0.206	0.221	0.264	0.21	0.278	0.136	0.1	0.1	0.083	0.072	0.077	0.067
Std 1 fail rate of total Std 1									0.076					
Total Std 2	2587	3211	3076	2993	3120	3257	3691	3479	3311	3285	3223	3328	3147	3593
Males Std 2	1337	1648	1596	1503	1532	1677	1856	1778	1722	1715	1710	1675	1592	1859
Females Std 2	1250	1563	1480	1490	1588	1580	1835	1701	1589	1570	1513	1653	1555	1734
Std 2 pass rate of presented	n/a	0.69	0.715	0.636	0.68	0.768	0.687	0.804	0.83	0.835	0.856	0.877	0.918	0.908
Std 2 pass rate of total Std 2									0.714		0.736	0.754	0.868	0.727
Std 2 fail rate of presented	n/a	0.31	0.285	0.364	0.32	0.232	0.313	0.196	0.17	0.165	0.144	0.123	0.082	0.092
Std 2 fail rate of total Std 2									0.146					
Total Std 3	2145	2438	2752	2515	2810	2959	3109	3223	3293	3372	3283	3324	3420	3369
Males Std 3	1086	1189	1406	1270	1424	1488	1567	1672	1638	1744	1699	1708	1741	1693
Females Std 3	1059	1249	1346	1245	1386	1471	1542	1551	1655	1628	1584	1616	1679	1676
Std 3 pass rate of presented	n/a	0.58	0.605	0.565	0.538	0.643	0.635	0.75	0.726	0.752	0.779	0.778	0.819	0.832
Std 3 pass rate of total Std 3									0.581		0.634	0.646	0.689	0.725
Std 3 fail rate of presented	n/a	0.42	0.395	0.435	0.462	0.357	0.365	0.25	0.274	0.248	0.221	0.222	0.181	0.168
Std 3 fail rate of total Std 3									0.22					

Total Std 4	1521	1411	1486	1533	1574	1734	2038	2437	2689	2679	2733	2896	3040	3045
Males Std 4	795	730	714	758	761	897	996	1190	1414	1353	1358	1463	1498	1528
Females Std 4	726	681	772	775	813	837	1042	1247	1275	1326	1375	1433	1542	1517
Std 4 pass rate of presented	n/a	0.5	0.625	0.656	0.604	0.751	0.592	0.747	0.706	0.735	0.707	0.728	0.73	0.784
Std 4 pass rate of total Std 4									0.5		0.54	0.576	0.56	0.653
Std 4 fail rate of presented	n/a	0.5	0.375	0.344	0.396	0.249	0.408	0.253	0.294	0.265	0.293	0.272	0.27	0.216
Std 4 fail rate of total Std 4									0.208					
Total Std 5	506	438	611	774	755	958	1055	1323	1616	1830	1852	2094	2099	2225
Males Std 5	270	242	307	352	362	464	522	676	733	923	939	1017	1026	1103
Females Std 5	236	196	304	422	393	494	533	647	883	907	913	1077	1073	1122
Std 5 pass rate of presented	n/a	0.62	0.696	0.611	0.647	0.603	0.548	0.626	0.634	0.6	0.601	0.608	0.663	0.768
Std 5 pass rate of total Std 5									0.389		0.408	0.39	0.494	0.552
Std 5 fail rate of presented	n/a	0.38	0.304	0.389	0.353	0.397	0.452	0.374	0.366	0.41	0.399	0.392	0.337	0.233
Std 5 fail rate of total Std 5									0.225					
Total Std 6	75	42	133	278	353	413	470	579	743	793	846	975	1102	1348
Males Std 6	40	24	71	121	140	148	194	251	391	395	395	475	543	617
Females Std 6	35	18	62	157	213	265	276	328	352	398	451	500	559	731
Std 6 pass rate of presented	n/a	0.87	0.825	0.529	0.635	0.628	0.527	0.735	0.72	0.748	0.727	0.675	0.749	0.83
Std 6 pass rate of total Std 6									0.408		0.437	0.392	0.468	0.521
Std 6 fail rate of presented	n/a	0.13	0.175	0.471	0.365	0.372	0.473	0.265	0.28	0.252	0.273	0.325	0.251	0.17
Std 6 fail rate of total Std 6									0.159					
Total above Std 6	0	2	16	27	53	79	74	144	228	167	186	175	228	397
Males above Std 6	0	2	10	13	29	24	26	65	93	80	80	79	87	159
Females above Std 6	0	0	6	14	24	55	48	79	135	87	106	96	141	238

Appendix 1.3 continued (2)

	1893	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*	*1901*	*1902*	*1903*	*1904*	*1905*	*1906*
Total no.	24254	25019	25594	26607	27683	27557	28013	28045	28387	28584	29258	30207	31639	32455
Total males	12370	12838	13191	13685	14328	14291	14628	14627	14837	15001	15412	15967	16716	17116
Total females	11884	12181	12403	12922	13355	13266	13385	13418	13550	13583	13846	14240	14923	15339
Total below Std 1	5951	6218	6355	7074	7387	7337	7804	7847	8298	8327	8829	9427	10028	10524
Males below Std 1	3198	3340	3401	3763	4027	3982	4209	4223	4410	4444	4824	5061	5350	5626
Females below Std 1	2753	2878	2954	3311	3360	3355	3595	3624	3888	3883	4005	4366	4678	4898
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	3687	3517	3471	3378	3585	3372	3383	3360	3293	3417	3425	3395	3823	3932
Males Std 1	1968	1877	1815	1783	1874	1785	1804	1747	1758	1796	1773	1824	2002	2061
Females Std 1	1719	1640	1656	1595	1711	1587	1579	1613	1535	1621	1652	1571	1821	1871
Std 1 pass rate of presented	0.913	0.924	0.953	0.962	0.966	0.973	0.966	0.941	0.953	0.976	0.976	n/a	n/a	n/a
Std 1 pass rate of total Std 1	0.772													
Std 1 fail rate of presented	0.087	0.076	0.047	0.038	0.034	0.027	0.034	0.059	0.047	0.024	0.024	n/a	n/a	n/a
Std 1 fail rate of total Std 1														
Total Std 2	3679	3683	3607	3520	3573	3673	3476	3414	3506	3430	3671	3693	3709	3966
Males Std 2	1876	1893	1884	1816	1867	1897	1826	1776	1832	1814	1890	1914	1974	2061
Females Std 2	1803	1790	1723	1704	1706	1776	1650	1638	1674	1616	1781	1779	1735	1905
Std 2 pass rate of presented	0.872	0.865	0.904	0.901	0.92	0.933	0.92	0.909	0.896	0.923	0.933	n/a	n/a	n/a
Std 2 pass rate of total Std 2	0.76													
Std 2 fail rate of presented	0.128	0.135	0.096	0.099	0.08	0.067	0.08	0.091	0.104	0.077	0.067	n/a	n/a	n/a
Std 2 fail rate of total Std 2														
Total Std 3	3599	3844	3862	3938	3887	3789	3906	3698	3648	3643	3628	3773	3779	3762
Males Std 3	1794	1955	1971	2054	1984	1988	2043	1962	1877	1889	1944	1958	1964	2014
Females Std 3	1805	1889	1891	1884	1903	1801	1863	1736	1741	1754	1684	1815	1815	1748
Std 3 pass rate of presented	0.832	0.768	0.837	0.812	0.828	0.82	0.802	0.876	0.859	0.877	0.901	n/a	n/a	n/a
Std 3 pass rate of total Std 3	0.648													
Std 3 fail rate of presented	0.168	0.232	0.163	0.188	0.172	0.18	0.198	0.124	0.141	0.123	0.099	n/a	n/a	n/a
Std 3 fail rate of total Std 3														

Total Std 4	3163	3506	3738	3825	3914	3790	3902	3796	3467	3443	3504	3554	3578	3542
Males Std 4	1603	1764	1930	1913	2021	1922	1968	1960	1818	1807	1789	1884	1872	1826
Females Std 4	1560	1742	1808	1912	1893	1868	1934	1836	1649	1636	1715	1670	1706	1716
Std 4 pass rate of presented	0.734	0.652	0.767	0.687	0.711	0.763	0.687	0.85	0.862	0.873	0.88	n/a	n/a	n/a
Std 4 pass rate of total Std 4	0.555													
Std 4 fail rate of presented	0.266	0.348	0.233	0.313	0.289	0.237	0.313	0.15	0.138	0.127	0.12	n/a	n/a	n/a
Std 4 fail rate of total Std 4														
Total Std 5	2296	2293	2555	2706	2833	2896	2841	3036	3127	3078	3007	3064	3233	3345
Males Std 5	1057	1127	1273	1383	1370	1446	1460	1507	1617	1587	1565	1616	1729	1749
Females Std 5	1239	1166	1282	1323	1463	1450	1381	1529	1510	1491	1442	1448	1504	1596
Std 5 pass rate of presented	0.708	0.684	0.778	0.703	0.768	0.777	0.711	0.853	0.85	0.828	0.846	n/a	n/a	n/a
Std 5 pass rate of total Std 5	0.51													
Std 5 fail rate of presented	0.292	0.316	0.222	0.297	0.232	0.223	0.289	0.147	0.15	0.172	0.154	n/a	n/a	n/a
Std 5 fail rate of total Std 5														
Total Std 6	1383	1337	1453	1599	1854	1826	1855	2029	2282	2303	2246	2275	2448	2357
Males Std 6	680	620	682	751	940	902	966	1051	1135	1202	1176	1186	1314	1262
Females Std 6	703	717	771	848	914	924	889	978	1147	1101	1070	1089	1134	1095
Std 6 pass rate of presented	0.756	0.767	0.878	0.77	0.799	0.868	0.787	0.713	0.762	0.759	0.755	n/a	n/a	n/a
Std 6 pass rate of total Std 6	0.541													
Std 6 fail rate of presented	0.244	0.233	0.122	0.23	0.201	0.132	0.213	0.287	0.238	0.241	0.245	n/a	n/a	n/a
Std 6 fail rate of total Std 6														
Total above Std 6	496	621	553	567	650	874	846	865	796	943	948	1026	1041	1027
Males above Std 6	194	262	235	222	245	369	352	401	390	462	451	524	511	517
Females above Std 6	302	359	318	345	405	505	494	464	406	481	497	502	530	510

Appendix 1.3 continued (3)

	1907	*1908*	*1909*	*1910*	*1911*
Total no.	33174	35810	37869	39588	42049
Total males	17451	18848	19869	20762	21976
Total females	15723	16962	18000	18826	20073
Total below Std 1	10862	11667	14905	15674	16913
Males below Std 1	5746	6153	7878	8318	8941
Females below Std 1	5116	5514	7027	7356	7972
Below Std 1 pass rate					
Below Std 1 fail rate					
Total Std 1	4056	4394	4725	4883	5258
Males Std 1	2123	2307	2450	2499	2686
Females Std 1	1933	2087	2275	2384	2572
Std 1 pass rate of presented	n/a	n/a	n/a	n/a	n/a
Std 1 pass rate of total Std 1					
Std 1 fail rate of presented	n/a	n/a	n/a	n/a	n/a
Std 1 fail rate of total Std 1					
Total Std 2	4070	4457	4526	4741	5025
Males Std 2	2151	2362	2366	2439	2577
Females Std 2	1919	2095	2160	2302	2448
Std 2 pass rate of presented	n/a	n/a	n/a	n/a	n/a
Std 2 pass rate of total Std 2					
Std 2 fail rate of presented	n/a	n/a	n/a	n/a	n/a
Std 2 fail rate of total Std 2					
Total Std 3	3913	4241	4197	4408	4734
Males Std 3	2033	2213	2161	2326	2425
Females Std 3	1880	2028	2036	2082	2309
Std 3 pass rate of presented	n/a	n/a	n/a	n/a	n/a
Std 3 pass rate of total Std 3					
Std 3 fail rate of presented	n/a	n/a	n/a	n/a	n/a
Std 3 fail rate of total Std 3					

Total Std 4	3608	3883	3788	3950	4175
Males Std 4	1934	2080	1986	2039	2202
Females Std 4	1674	1803	1802	1911	1973
Std 4 pass rate of presented	n/a	n/a	n/a	n/a	n/a
Std 4 pass rate of total Std 4					
Std 4 fail rate of presented	n/a	n/a	n/a	n/a	n/a
Std 4 fail rate of total Std 4					
Total Std 5	3196	3458	3091	3333	3463
Males Std 5	1651	1790	1652	1754	1817
Females Std 5	1545	1668	1439	1579	1646
Std 5 pass rate of presented	n/a	n/a	n/a	n/a	n/a
Std 5 pass rate of total Std 5					
Std 5 fail rate of presented	n/a	n/a	n/a	n/a	n/a
Std 5 fail rate of total Std 5					
Total Std 6	2521	2716	2271	2166	2139
Males Std 6	1335	1440	1183	1164	1148
Females Std 6	1186	1276	1088	1002	991
Std 6 pass rate of presented	n/a	n/a	n/a	n/a	n/a
Std 6 pass rate of total Std 6					
Std 6 fail rate of presented	n/a	n/a	n/a	n/a	n/a
Std 6 fail rate of total Std 6					
Total above Std 6	948	994	366	433	342
Males above Std 6	478	503	193	223	180
Females above Std 6	470	491	173	210	162

Appendix 1.4 – Auckland Education District observed and calculated expected pupil numbers for Standards 4, 5, and 6 (ob = observed; ex = expected; S3 to S4 = {S4 ob – previous year S3 ob}/ previous year S3 ob, as a %), this is the change in pupil numbers in successive years for successive Standards levels expressed as a percentage of the lower level; similarly for S4 to S5 and S5 to S6)

	1881	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
S3 ob	2752	2515	2810	2959	3109	3223	3293	3372	3283	3324	3420	3369
S4 ob	1486	1533	1574	1734	2038	2437	2689	2679	2733	2896	3040	3045
S3 pass rate	0.605	0.565	0.538	0.643	0.635	0.75	0.726	0.752	0.779	0.778	0.819	0.832
S4 fail rate	0.375	0.344	0.396	0.249	0.408	0.253	0.294	0.265	0.293	0.272	0.27	0.216
S4 ex	2119.54	2222.21	1948.33	2135.08	2334.40	2805.72	3033.81	3181.28	3245.68	3358.23	3373.78	3621.78
S3 to S4	-39.0484	-44.2951	-37.4155	-38.2918	-31.1254	-21.6147	-16.5684	-18.6456	-18.9502	-11.7880	-8.5439	-10.9649
S4 Ob/Ex	0.7011	0.6899	0.8079	0.8121	0.8730	0.8686	0.8863	0.8421	0.8420	0.8624	0.9011	0.8407
S5 ob	611	774	755	958	1055	1323	1616	1830	1852	2094	2099	2225
S4 pass rate	0.625	0.656	0.604	0.751	0.592	0.747	0.706	0.735	0.707	0.728	0.73	0.784
S5 fail rate	0.304	0.389	0.353	0.397	0.452	0.374	0.366	0.41	0.399	0.392	0.337	0.233
S5 ex	871.94	1114.49	1306.73	1217.21	1682.56	1683.36	2315.24	2489.89	2719.37	2671.18	2929.14	2926.56
S4 to S5	-56.6974	-47.9139	-50.7502	-39.1360	-39.1580	-35.0834	-33.6890	-31.9450	-30.8697	-23.3809	-27.5207	-26.8092
S5 Ob/Ex	0.7007	0.6945	0.5778	0.7870	0.6270	0.7859	0.6980	0.7350	0.6810	0.7839	0.7166	0.7603
S6 ob	133	278	353	413	470	579	743	793	846	975	1102	1348
S5 pass rate	0.696	0.611	0.647	0.603	0.548	0.626	0.634	0.6	0.601	0.608	0.663	0.768
S6 fail rate	0.175	0.471	0.365	0.372	0.473	0.265	0.28	0.252	0.273	0.325	0.251	0.17
S6 ex	277.02	448.53	603.85	617.33	731.31	800.45	981.63	1232.58	1297.84	1344.01	1590.03	1668.24
S5 to S6	-69.6347	-54.5008	-54.3928	-45.2980	-50.9395	-45.1185	-43.8398	-50.9282	-53.7705	-47.3542	-47.3734	-35.7789
S6 Ob/Ex	0.4801	0.6198	0.5846	0.6690	0.6427	0.7233	0.7569	0.6434	0.6519	0.7254	0.6931	0.8080

Appendix 1.4 (continued)

	1893	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*	*1901*	*1902*	*1903*	*1904*
S3 ob	3599	3844	3862	3938	3887	3789	3906	3698	3648	3643	3628	3773
S4 ob	3163	3506	3738	3825	3914	3790	3902	3796	3467	3443	3504	3554
S3 pass rate	0.832	0.768	0.837	0.812	0.828	0.82	0.802	0.876	0.859	0.877	0.901	n/a
S4 fail rate	0.266	0.348	0.233	0.313	0.289	0.237	0.313	0.15	0.138	0.127	0.12	n/a
S4 ex	3460.73	3835.73	4172.28	4103.45	4394.88	4349.58	4005.21	4353.94	3808.85	3612.08	3632.17	3689.31
S3 to S4	-6.1146	-2.5841	-2.7575	-0.9581	-0.6094	-2.4955	2.9823	-2.8162	-6.2466	-5.6195	-3.8155	-2.0397
S4 Ob/Ex	0.9140	0.9140	0.8959	0.9321	0.8906	0.8713	0.9742	0.8719	0.9102	0.9532	0.9647	0.9633
S5 ob	2296	2293	2555	2706	2833	2896	2841	3036	3127	3078	3007	3064
S4 pass rate	0.734	0.652	0.767	0.687	0.711	0.763	0.687	0.85	0.862	0.873	0.88	n/a
S5 fail rate	0.292	0.316	0.222	0.297	0.232	0.223	0.289	0.147	0.15	0.172	0.154	n/a
S5 ex	2905.71	2992.07	3010.50	3434.26	3431.46	3440.11	3537.58	3501.72	3672.89	3457.60	3535.16	3546.60
S4 to S5	-24.5977	-27.5055	-27.1249	-27.6083	-25.9346	-26.0092	-25.0396	-22.1937	-17.6238	-11.2201	-12.6634	-12.5571
S5 Ob/Ex	0.7902	0.7664	0.8487	0.7879	0.8256	0.8418	0.8031	0.8670	0.8514	0.8902	0.8506	0.8639
S6 ob	1383	1337	1453	1599	1854	1826	1855	2029	2282	2303	2246	2275
S5 pass rate	0.708	0.684	0.778	0.703	0.768	0.777	0.711	0.853	0.85	0.828	0.846	n/a
S6 fail rate	0.244	0.233	0.122	0.23	0.201	0.132	0.213	0.287	0.238	0.241	0.245	n/a
S6 ex	1937.96	1963.02	1879.93	2165.06	2270.09	2548.40	2491.22	2415.07	3172.03	3201.07	3103.61	3094.19
S5 to S6	-37.8427	-41.7683	-36.6332	-37.4168	-31.4856	-35.5454	-35.9461	-28.5815	-24.8353	-26.3511	-27.0305	-24.3432
S6 Ob/Ex	0.7136	0.6811	0.7729	0.7385	0.8167	0.7165	0.7446	0.8401	0.7194	0.7194	0.7237	0.7352

Appendix 2.1 – Hawke's Bay Education District raw age data and gender ratios for 7-9 y age groups (source E1 reports)

		1879	*1880*	*1881*	*1882*	*1883*	*1884*	*1885*	*1886*	*1887*	*1888*	*1889*
Under 5 y	**Males**	108	74									
	Females	110	86									
	Total	218	160	[20]								
5-6 y	**Males**	328	405	436	472	488	519	624	593	628	523	642
	Females	284	367	390	391	433	470	536	559	551	480	578
	Total	612	772	826	863	921	989	1160	1152	1179	1003	1220
7-9 y	**Males**	484	555	661	677	773	858	894	1033	1097	1173	1126
	Females	423	485	526	564	685	732	886	914	1063	1050	1073
	Total	907	1040	1187	1241	1458	1590	1780	1947	2160	2223	2199
10-12 y	**Males**	380	460	472	532	555	601	677	766	866	1031	991
	Females	332	395	419	421	431	542	595	697	762	863	878
	Total	712	855	891	953	986	1146	1272	1463	1628	1894	1869
13-14 y	**Males**	116	117	138	126	152	168	213	240	227	244	321
	Females	98	115	104	138	146	169	185	191	207	249	265
	Total	214	232	242	264	298	337	398	431	434	493	586
Over 15 y	**Males**	22	14	30	23	10	24	18	27	24	30	44
	Females	12	12	10	19	24	24	26	32	37	57	51
	Total	34	26	40	42	34	48	44	59	61	87	95
All ages	**Males**	1438	1625	1737	1830	1978	2173	2426	2659	2842	3001	3124
	Females	1259	1460	1449	1533	1719	1937	2228	2893	2620	2699	2845
	Total	2697	3085	3186	3363	3697	4110	4654	5062	5462	5700	5969
All ages 5 y & over	**Males 5 y & over**	1330	1551	1737	1830	1978	2173	2426	2659	2842	3001	3124
	Females 5 y & over	1149	1374	1449	1533	1719	1937	2228	2893	2620	2699	2845
	Total 5 y & over	2479	2925	3186	3363	3697	4110	4654	5052	5462	5700	5969
All 5-15 y	**Males 5-15 y**	1308	1537	1707	1807	1968	2149	2408	2632	2818	2971	3080
	Females 5-15 y	1137	1362	1439	1514	1695	1913	2202	2361	2583	2642	2794
	Total 5-15 y	2445	2899	3146	3321	3663	4062	4610	4993	5401	5613	5874

Appendix 2.1 continued (2)

		1890	*1891*	*1892*	*1893*	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	578	640	705	719	679	676	691	718	672	689	735
	Females	535	563	571	620	652	600	601	633	634	618	664
	Total	1113	1203	1276	1339	1331	1276	1292	1351	1306	1307	1403
7-9 y	**Males**	1230	1212	1263	1329	1405	1440	1427	1460	1490	1479	1457
	Females	1142	1072	1163	1182	1172	1270	1296	1278	1296	1288	1346
	Total	2372	2284	2426	2511	2577	2710	2723	2738	2786	2767	2803
10-12 y	**Males**	975	1025	1048	1091	1157	1261	1255	1299	1334	1406	1377
	Females	900	1026	1023	1033	1124	1161	1128	1115	1215	1299	1265
	Total	1875	2051	2071	2124	2281	2422	2383	2418	2549	2705	2642
13-14 y	**Males**	291	306	338	346	372	424	479	458	517	535	533
	Females	261	291	323	357	383	367	375	456	425	389	455
	Total	552	597	661	703	755	791	854	914	942	924	988
Over 15 y	**Males**	52	53	48	54	60	68	59	79	78	82	83
	Females	48	40	41	51	58	80	72	79	65	75	78
	Total	100	93	89	105	118	148	131	158	143	157	161
All ages	**Males**	3126	3236	3402	3539	3673	3869	3911	4014	4091	4191	4189
	Females	2886	2992	3121	3243	3389	3478	3472	3565	3635	3669	3808
	Total	6012	6228	6523	6782	7062	7347	7383	7579	7726	7860	7997
All ages 5 y & over	**Males 5 y & over**	3126	3236	3402	3539	3673	3869	3911	4014	4091	4191	4189
	Females 5 y & over	2886	2992	3121	3243	3389	3478	3472	3565	3635	3669	3808
	Total 5 y & over	6012	6228	6523	6743	7062	7347	7383	7579	7726	7860	7997
All 5-15 y	**Males 5-15 y**	3074	3233	3354	3485	3613	3801	3852	3935	4013	4105	4106
	Females 5-15 y	2838	2952	3080	3192	3331	3398	3400	3486	3570	3594	3730
	Total 5-15 y	5912	6185	6434	6677	6944	7199	7252	7421	7583	7703	7836

Appendix 2.1 continued (3)

		1901	*1902*	*1903*	*1904*	*1905*	*1906*	*1907*	*1908*	*1909*	*1910*	*1911*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	712	732	754	766	818	859	861	914	993	1022	1009
	Females	690	703	677	711	728	780	752	806	868	930	936
	Total	1402	1435	1431	1477	1546	1639	1613	1720	1861	1952	1945
7-9 y	**Males**	1546	1524	1552	1601	1639	1679	1644	1794	1807	1873	1981
	Females	1360	1341	1426	1472	1536	1528	1579	1652	1700	1706	1851
	Total	2906	2865	2978	3073	3175	3207	3223	3446	3507	3579	3832
10-12 y	**Males**	1418	1425	1435	1558	1528	1634	1614	1637	1656	1666	1726
	Females	1234	1280	1244	1326	1305	1428	1454	1521	1500	1505	1533
	Total	2652	2705	2679	2884	2833	3062	3068	3158	3156	3171	3259
13-14 y	**Males**	515	587	577	574	610	592	693	691	738	726	706
	Females	511	496	529	539	505	482	548	583	674	659	627
	Total	1026	1083	1106	1113	1119	1074	1241	1274	1412	1385	1333
Over 15 y	**Males**	90	94	111	110	88	84	124	133	119	108	115
	Females	64	84	121	108	109	83	94	112	83	95	107
	Total	154	178	232	218	197	167	218	245	202	203	222
All ages	**Males**	4281	4362	4429	4609	4683	4848	4936	5169	5313	5395	5537
	Females	3859	3904	3997	4156	4187	4301	4427	4674	4825	4895	5054
	Total	8140	8266	8426	8765	8870	9149	9363	9843	10138	10290	10591
All ages 5 y & over	**Males 5 y & over**	4281	4362	4429	4609	4683	4848	4936	5169	5313	5395	5537
	Females 5 y & over	3859	3904	3997	4156	4187	4301	4427	4674	4825	4895	5054
	Total 5 y & over	8140	8266	8426	8765	8870	9149	9363	9843	10138	10290	10591
All 5-15 y	**Males 5-15 y**	4191	4268	4318	4499	4595	4764	4812	5036	5194	5287	5422
	Females 5-15 y	3795	3820	3876	4048	4078	4218	4333	4562	4742	4800	4947
	Total 5-15 y	7986	8088	8194	8547	8673	8982	9145	9598	9936	10087	10369

Appendix 2.2 – Hawke's Bay Education District gender age ratios for 5-6 y age groups and 13-14 y age group to 7-9 y age group (source E1 reports)

Age ratios																	
Males	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***
5-6 y/7-9 y	0.7297	0.6596	0.6972	0.6313	0.6049	0.6980	0.5741	0.5725	0.4459	0.5702	0.4699	0.5281	0.5582	0.5410	0.4833	0.4694	0.4842
13-14 y/7-9 y	0.2108	0.2088	0.1861	0.1966	0.1958	0.2383	0.2323	0.2069	0.2080	0.2851	0.2366	0.2525	0.2676	0.2603	0.2648	0.2944	0.3357
Females	**1880**	**1881**	**1882**	**1883**	**1884**	**1885**	**1886**	**1887**	**1888**	**1889**	**1890**	**1891**	**1892**	**1893**	**1894**	**1895**	**1896**
5-6 y/7-9 y	0.7567	0.7414	0.6933	0.6321	0.6421	0.6050	0.6116	0.5183	0.4571	0.5387	0.4685	0.5252	0.4910	0.5245	0.5563	0.4724	0.4637
13-14 y/7-9 y	0.2371	0.1977	0.2447	0.2131	0.2309	0.2088	0.2090	0.1947	0.2371	0.2470	0.2285	0.2715	0.2777	0.3020	0.3268	0.2890	0.2894

Males	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.4918	0.4510	0.4659	0.5045	0.4605	0.4803	0.4858	0.4785	0.4991	0.5116	0.5237	0.5095	0.5495	0.5456	0.5093
13-14 y/7-9 y	0.3137	0.3470	0.3617	0.3658	0.3331	0.3852	0.3718	0.3585	0.3722	0.3526	0.4215	0.3852	0.4084	0.3876	0.3564
Females	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.4953	0.4892	0.4798	0.4933	0.5074	0.5242	0.4748	0.4830	0.4740	0.5105	0.4763	0.4879	0.5106	0.5451	0.5057
13-14 y/7-9 y	0.3568	0.3279	0.3020	0.3380	0.3757	0.3699	0.3710	0.3662	0.3288	0.3154	0.3471	0.3529	0.3965	0.3863	0.3387

Appendix 2.3 – Hawke's Bay Education District raw Standards level data and pass/fail rates (source E1 reports)

	1879	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
Total no.	2479	2925	3206	3363	3697	4110	4654	5052	5462	5700	5969	6012	6228	6523
Total males	1330	1551	1749	1830	1978	2173	2426	2659	2842	3001	3124	3126	3236	3402
Total females	1149	1374	1457	1533	1719	1937	2228	2393	2620	2699	2845	2886	2992	3121
Total below Std 1	674	875	902	939	910	796	1062	1289	1262	1359	1560	1505	1632	1757
Males below Std 1	370	467	466	525	475	421	570	707	670	745	824	804	902	977
Females below Std 1	304	408	436	414	435	375	492	582	592	614	736	701	730	780
Below Std 1 pass rate	n/a													
Below Std 1 fail rate	n/a													
Total Std 1	717	686	694	699	926	1022	1204	911	1244	1167	1063	1078	1085	1033
Males Std 1	376	364	401	367	513	530	607	470	648	609	558	565	557	533
Females Std 1	341	322	293	332	413	492	597	441	596	558	505	513	528	500
Std 1 pass rate of presented	n/a	0.681	0.691	0.760	0.796	0.840	0.804	0.802	0.800	0.770	0.887	0.869	0.870	0.849
Std 1 pass rate of total Std 1	n/a													
Std 1 fail rate of presented	n/a	0.319	0.309	0.240	0.204	0.160	0.196	0.198	0.200	0.230	0.113	0.131	0.130	0.151
Std 1 fail rate of total Std 1	n/a													
Total Std 2	536	602	536	549	615	805	758	915	862	939	955	986	952	965
Males Std 2	276	303	290	294	315	404	394	467	432	490	478	496	472	490
Females Std 2	260	299	246	255	300	401	364	448	430	449	477	490	480	475
Std 2 pass rate of presented	n/a	0.648	0.742	0.674	0.791	0.761	0.792	0.835	0.819	0.794	0.861	0.831	0.831	0.863
Std 2 pass rate of total Std 2	n/a													
Std 2 fail rate of presented	n/a	0.352	0.258	0.326	0.209	0.239	0.208	0.165	0.181	0.206	0.139	0.169	0.169	0.137
Std 2 fail rate of total Std 2	n/a													
Total Std 3	463	493	518	501	536	569	678	780	860	862	913	833	932	1020
Males Std 3	242	249	276	271	286	316	348	393	446	445	489	423	483	515
Females Std 3	221	244	242	230	250	253	330	387	414	417	424	410	449	505
Std 3 pass rate of presented	n/a	0.670	0.695	0.788	0.731	0.770	0.740	0.685	0.732	0.704	0.758	0.795	0.803	0.810
Std 3 pass rate of total Std 3	n/a													
Std 3 fail rate of presented	n/a	0.330	0.305	0.212	0.269	0.230	0.260	0.315	0.269	0.296	0.242	0.205	0.197	0.190
Std 3 fail rate of total Std 3	n/a													

Total Std 4	238	278	355	401	355	508	466	561	606	674	660	747	734	818
Males Std 4	130	143	193	210	192	291	252	308	316	356	339	388	381	409
Females Std 4	108	135	162	191	163	217	214	253	289	318	321	359	353	409
Std 4 pass rate of presented	n/a	0.611	0.776	0.653	0.726	0.644	0.740	0.838	0.699	0.689	0.768	0.775	0.738	0.685
Std 4 pass rate of total Std 4	n/a											0.225		
Std 4 fail rate of presented	n/a	0.389	0.224	0.347	0.274	0.356	0.260	0.162	0.301	0.311	0.232		0.262	0.315
Std 4 fail rate of total Std 4	n/a													
Total Std 5	67	125	156	185	245	256	344	376	390	392	473	485	550	554
Males Std 5	42	80	94	99	136	134	182	187	211	201	247	261	261	288
Females Std 5	25	45	62	86	109	122	162	189	179	191	226	224	289	266
Std 5 pass rate of presented	n/a	0.694	0.685	0.604	0.643	0.554	0.443	0.681	0.697	0.662	0.682	0.649	0.604	0.657
Std 5 pass rate of total Std 5	n/a													
Std 5 fail rate of presented	n/a	0.306	0.315	0.396	0.357	0.446	0.557	0.319	0.303	0.338	0.318	0.351	0.396	0.343
Std 5 fail rate of total Std 5	n/a													
Total Std 6	2	26	44	71	82	119	117	162	178	217	209	294	270	299
Males Std 6	2	19	28	51	47	59	53	95	83	117	116	150	147	148
Females Std 6	0	7	16	20	35	60	64	67	95	100	93	144	123	151
Std 6 pass rate of presented	n/a	0.000	0.770	0.840	0.895	0.690	0.851	0.843	0.789	0.776	0.851	0.672	0.713	0.763
Std 6 pass rate of total Std 6	n/a													
Std 6 fail rate of presented	n/a	0.000	0.230	0.160	0.105	0.310	0.149	0.157	0.211	0.224	0.149	0.328	0.287	0.237
Std 6 fail rate of total Std 6	n/a													
Total above Std 6	0	0	1	18	28	35	25	58	61	90	136	84	73	77
Males above Std 6	0	0	1	13	14	18	20	32	36	38	73	39	33	42
Females above Std 6	0	0	0	5	14	17	5	26	25	52	63	45	40	35

Appendix 2.3 continued (2)

	1893	***1894***	***1895***	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***
Total no.	6782	7062	7347	7383	7579	7726	7860	7997	8140	8266	8426	8765	8870	9149
Total males	3539	3673	3869	3911	4014	4091	4191	4189	4281	4362	4429	4609	4683	4818
Total females	3243	3389	3478	3472	3565	3635	3669	3808	3859	3904	3997	4156	4187	4301
Total below Std 1	1897	2022	2201	2115	2172	2042	2005	2097	2132	2135	2167	2259	2367	2967
Males below Std 1	1036	1079	1189	1175	1179	1106	1078	1143	1141	1138	1144	1218	1260	1579
Females below Std 1	861	943	1012	940	993	936	927	954	991	997	1023	1041	1107	1388
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	1049	1042	1025	1057	1101	1154	1132	1086	1090	1085	1141	1071	1138	1197
Males Std 1	582	573	536	530	607	625	612	560	583	577	613	548	598	636
Females Std 1	467	469	489	527	494	529	520	526	507	508	528	523	540	561
Std 1 pass rate of presented	0.808	0.849	0.866	0.903	0.890	0.939	0.917	0.914	0.897	0.913	0.880			
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	0.192	0.151	0.134	0.097	0.110	0.061	0.083	0.086	0.103	0.087	0.120			
Std 1 fail rate of total Std 1														
Total Std 2	1007	989	1025	1056	1055	1095	1086	1068	1048	1129	1040	1246	1134	1170
Males Std 2	493	510	563	543	562	591	585	569	536	604	562	679	608	627
Females Std 2	514	479	462	513	493	504	501	499	512	525	478	567	526	543
Std 2 pass rate of presented	0.798	0.857	0.890	0.880	0.890	0.895	0.928	0.901	0.892	0.895	0.863			
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented	0.202	0.143	0.110	0.120	0.110	0.105	0.072	0.099	0.108	0.105	0.137			
Std 2 fail rate of total Std 2														
Total Std 3	1074	1074	1052	1104	1045	1130	1150	1099	1160	1061	1176	1054	1188	1158
Males Std 3	553	535	531	620	541	572	632	589	627	545	616	561	634	610
Females Std 3	521	539	521	484	504	558	518	510	533	516	560	493	554	548
Std 3 pass rate of presented	0.709	0.793	0.787	0.759	0.822	0.839	0.869	0.859	0.860	0.859	0.812			
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented	0.291	0.207	0.213	0.241	0.178	0.161	0.131	0.141	0.140	0.141	0.188			
Std 3 fail rate of total Std 3														

Total Std 4	801	892	914	865	962	938	1043	1003	997	1095	1010	1239	1067	1071
Males Std 4	411	453	454	440	504	489	521	517	526	588	532	644	567	583
Females Std 4	390	439	460	425	458	449	522	486	471	507	478	595	500	488
Std 4 pass rate of presented	0.697	0.763	0.738	0.792	0.756	0.835	0.828	0.869	0.851	0.834	0.811			
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented	0.303	0.237	0.262	0.208	0.244	0.165	0.172	0.131	0.149	0.166	0.189			
Std 4 fail rate of total Std 4														
Total Std 5	550	593	680	651	670	775	774	885	861	882	907	881	984	852
Males Std 5	263	304	366	326	343	416	401	422	453	460	468	463	522	445
Females Std 5	287	289	314	325	327	359	373	463	408	422	439	418	462	407
Std 5 pass rate of presented	0.699	0.710	0.622	0.736	0.743	0.765	0.775	0.841	0.796	0.799	0.774			
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented	0.301	0.290	0.378	0.264	0.257	0.235	0.225	0.159	0.204	0.201	0.226			
Std 5 fail rate of total Std 5														
Total Std 6	312	356	330	410	427	434	507	578	627	640	656	702	690	591
Males Std 6	163	174	181	223	203	217	273	313	313	339	330	352	354	298
Females Std 6	149	182	149	187	224	217	234	265	314	301	326	350	336	293
Std 6 pass rate of presented	0.706	0.657	0.713	0.688	0.846	0.792	0.701	0.727	0.729	0.611	0.691			
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented	0.294	0.343	0.287	0.312	0.154	0.208	0.299	0.273	0.271	0.389	0.309			
Std 6 fail rate of total Std 6														
Total above Std 6	92	94	120	125	147	158	163	181	225	239	329	313	302	143
Males above Std 6	38	45	49	54	75	75	89	76	102	111	164	144	140	70
Females above Std 6	54	49	71	71	72	83	74	105	123	128	165	169	162	73

Appendix 2.3 continued (3)

	1907	***1908***	***1909***	***1910***	***1911***
Total no.	9363	9843	10138	10290	10591
Total males	4936	5169	5313	5395	5537
Total females	4427	4674	4825	4895	5054
Total below Std 1	3191	3638	3707	3781	3837
Males below Std 1	1693	1943	1965	2012	2038
Females below Std 1	1498	1695	1742	1769	1799
Below Std 1 pass rate					
Below Std 1 fail rate					
Total Std 1	1153	1237	1286	1343	1361
Males Std 1	597	634	692	714	696
Females Std 1	556	603	594	629	665
Std 1 pass rate of presented					
Std 1 pass rate of total Std 1					
Std 1 fail rate of presented					
Std 1 fail rate of total Std 1					
Total Std 2	1238	1064	1272	1258	1426
Males Std 2	662	562	657	674	744
Females Std 2	576	502	615	584	682
Std 2 pass rate of presented					
Std 2 pass rate of total Std 2					
Std 2 fail rate of presented					
Std 2 fail rate of total Std 2					
Total Std 3	1137	1207	1070	1210	1217
Males Std 3	584	644	541	615	665
Females Std 3	553	563	529	595	552
Std 3 pass rate of presented					
Std 3 pass rate of total Std 3					
Std 3 fail rate of presented					
Std 3 fail rate of total Std 3					

Total Std 4	1058	1070	1121	1035	1116
Males Std 4	571	530	613	514	581
Females Std 4	487	540	508	521	535
Std 4 pass rate of presented					
Std 4 pass rate of total Std 4					
Std 4 fail rate of presented					
Std 4 fail rate of total Std 4					
Total Std 5	891	868	906	957	855
Males Std 5	489	464	444	517	404
Females Std 5	402	404	462	440	451
Std 5 pass rate of presented					
Std 5 pass rate of total Std 5					
Std 5 fail rate of presented					
Std 5 fail rate of total Std 5					
Total Std 6	587	600	672	587	674
Males Std 6	298	326	354	292	356
Females Std 6	289	274	318	295	318
Std 6 pass rate of presented					
Std 6 pass rate of total Std 6					
Std 6 fail rate of presented					
Std 6 fail rate of total Std 6					
Total above Std 6	108	159	104	119	105
Males above Std 6	42	66	47	57	53
Females above Std 6	66	93	57	62	52

Appendix 2.4 – Hawke's Bay Education District observed and calculated expected pupil numbers for Standards 4, 5, and 6 (ob = observed; ex = expected; S3 to S4 = {S4 ob – previous year S3 ob}/ previous year S3 ob, as a %), this is the change in pupil numbers in successive years for successive Standards levels expressed as a percentage of the lower level; similarly for S4 to S5 and S5 to S6)

	1880	*1881*	*1882*	*1883*	*1884*	*1885*	*1886*	*1887*	*1888*	*1889*	*1890*	*1891*	*1892*
S3 ob	493	518	501	536	569	678	780	860	862	913	833	932	1020
S4 ob	278	355	401	355	508	466	561	606	674	660	747	734	818
S3 pass rate	0.67	0.695	0.788	0.731	0.77	0.74	0.685	0.732	0.704	0.758	0.795	0.803	0.81
S4 fail rate	0.389	0.224	0.347	0.274	0.356	0.26	0.162	0.301	0.311	0.232		0.262	0.315
S4 ex		438.452	439.53	533.935	489.086	618.978	622.88	625.182	811.926	816.462	845.174	662.235	940.704
S3 to S4		-27.9919	-22.5869	-29.1417	-5.22388	-18.1019	-17.2566	-22.3077	-21.6279	-23.4339	-18.1818	-11.8848	-12.2318
S4 Ob/Ex		0.809667	0.912338	0.664875	1.038672	0.752854	0.900655	0.969318	0.830125	0.808366	0.883842	1.108368	0.869562
S5 ob	125	156	185	245	256	344	376	390	392	473	485	550	554
S4 pass rate	0.611	0.776	0.653	0.726	0.644	0.74	0.838	0.699	0.689	0.768	0.775	0.738	0.685
S5 fail rate	0.306	0.315	0.396	0.357	0.446	0.557	0.319	0.303	0.338	0.318	0.351	0.396	0.343
S5 ex		208.108	324.62	335.113	345.195	441.328	536.448	590.062	541.764	596.882	657.294	749.16	759.492
S4 to S5		-43.8849	-47.8873	-38.9027	-27.8873	-32.2835	-19.3133	-30.4813	-35.3135	-29.822	-26.5152	-26.3722	-24.5232
S5 Ob/Ex		0.749611	0.569897	0.731097	0.74161	0.779466	0.700907	0.660947	0.723562	0.792451	0.737874	0.734156	0.729435
S6 ob	26	44	71	82	119	117	162	178	217	209	294	270	299
S5 pass rate	0.694	0.685	0.604	0.643	0.554	0.443	0.681	0.697	0.662	0.682	0.649	0.604	0.657
S6 fail rate	0	0.23	0.16	0.105	0.31	0.149	0.157	0.211	0.224	0.149	0.328	0.287	0.237
S6 ex		86.75	116.98	123.1	166.145	178.714	169.825	281.49	309.388	308.112	353.727	411.197	409.69
S5 to S6		-64.8	-54.4872	-55.6757	-51.4286	-54.2969	-52.907	-52.6596	-44.359	-46.6837	-37.8436	-44.3299	-45.6364
S6 Ob/Ex		0.211429	0.218717	0.244694	0.344733	0.265109	0.301986	0.301663	0.400543	0.350153	0.447288	0.360404	0.393684

Appendix 2.4 (continued)

	1893	***1894***	***1895***	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***
S3 ob	1074	1074	1052	1104	1045	1130	1150	1099	1160	1061	1176	1054
S4 ob	801	892	914	865	962	938	1043	1003	997	1095	1010	1239
S3 pass rate	0.709	0.793	0.787	0.759	0.822	0.839	0.869	0.859	0.86	0.859	0.812	
S4 fail rate	0.303	0.237	0.262	0.208	0.244	0.165	0.172	0.131	0.149	0.166	0.189	
S4 ex	1083.87	1004.169	1063.086	1067.392	1017.856	1093.718	1102.84	1178.746	1075.434	1146.153	1093.169	
S3 to S4	-21.4706	-16.946	-14.8976	-17.7757	-12.8623	-10.2392	-7.69912	-12.7826	-9.28116	-5.60345	-4.80679	
S4 Ob/Ex	0.739019	0.888297	0.859761	0.810386	0.945124	0.857625	0.94574	0.850904	0.927068	0.95537	0.923919	
S5 ob	550	593	680	651	670	775	774	885	861	882	907	881
S4 pass rate	0.697	0.763	0.738	0.792	0.756	0.835	0.828	0.869	0.851	0.834	0.811	
S5 fail rate	0.301	0.29	0.378	0.264	0.257	0.235	0.225	0.159	0.204	0.201	0.226	
S5 ex	750.352	723.847	852.566	931.572	856.944	899.462	965.355	1037.754	1012.322	1024.091	1090.512	
S4 to S5	-32.7628	-25.9675	-23.7668	-28.7746	-22.5434	-19.4387	-17.484	-15.1486	-14.1575	-11.5346	-17.1689	
S5 Ob/Ex	0.732989	0.819234	0.797592	0.698819	0.781848	0.861626	0.801778	0.852803	0.85052	0.861252	0.831719	
S6 ob	312	356	330	410	427	434	507	578	627	640	656	702
S5 pass rate	0.699	0.71	0.622	0.736	0.743	0.765	0.775	0.841	0.796	0.799	0.774	
S6 fail rate	0.294	0.343	0.287	0.312	0.154	0.208	0.299	0.273	0.271	0.389	0.309	
S6 ex	434.841	476.178	543.138	517.67	607.056	563.568	683.147	751.443	902.079	855.273	953.678	
S5 to S6	-43.6823	-35.2727	-44.3508	-39.7059	-34.4086	-35.2239	-34.5806	-25.323	-29.1525	-25.6678	-25.6236	
S6 Ob/Ex	0.415805	0.491817	0.387067	0.440116	0.498282	0.482511	0.525195	0.556972	0.619368	0.624944	0.601552	

Appendix 3.1 – Taranaki Education District raw age data and gender ratios for 7-9 y age groups (source E1 reports)

No. pupils by age												
		1879	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***
Under 5 yrs	**Males**	34	13									
	Females	43	8									
	Total	77	21									
5-6 y	**Males**	139	160	204	256	254	250	268	243	222	183	203
	Females	106	157	185	232	228	189	223	214	199	192	199
	Total	245	317	389	488	482	439	491	457	421	375	402
7-9 y	**Males**	261	310	323	371	403	412	451	500	517	498	487
	Females	220	257	274	341	350	368	403	402	415	396	432
	Total	481	567	597	712	753	780	854	902	932	894	919
10-12 y	**Males**	186	261	272	297	313	333	323	354	371	433	465
	Females	181	231	269	278	289	300	311	377	358	418	420
	Total	367	492	541	575	602	633	634	731	729	851	885
13-14 y	**Males**	50	70	82	88	79	125	125	111	140	105	139
	Females	64	75	80	99	113	101	113	120	116	143	161
	Total	114	145	162	187	192	226	238	231	256	248	300
Over 15 y	**Males**	10	10	5	11	4	13	22	21	26	25	21
	Females	8	7	15	12	27	22	22	26	31	22	38
	Total	18	17	20	23	31	35	44	47	57	47	59
All ages	**Males**	680	824	886	1023	1053	1133	1189	1229	1276	1244	1315
	Females	622	735	823	962	1007	980	1072	1139	1119	1171	1250
	Total	1303	1559	1709	1985	2060	2113	2261	2368	2395	2415	2565
All ages over 5 y	**Males >5 yrs**	646	811	886	1023	1053	1133	1189	1229	1276	1244	1315
	Females >5 yrs	579	727	823	962	1007	980	1072	1139	1119	1171	1250
	Total >5 yrs	1225	1538	1709	1985	2060	2113	2261	2368	2395	2415	2565
All 5-15 y	**Males 5-15 yrs**	636	801	881	1012	1049	1120	1167	1208	1276	1219	1294
	Females 5-15 yrs	571	720	808	950	980	958	1050	1113	1119	1149	1212
	Total 5-15 yrs	1207	1521	1689	1962	2029	2078	2217	2321	2395	2368	2506

Appendix 3.1 continued (2)

No. pupils by age												
		1890	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***	***1897***	***1898***	***1899***	***1900***
Under 5 yrs	**Males**											
	Females											
	Total											
5-6 y	**Males**	215	244	257	267	332	335	319	311	303	351	358
	Females	190	207	231	242	256	251	274	301	303	299	324
	Total	405	451	488	509	588	586	593	612	606	650	682
7-9 y	**Males**	505	577	603	619	670	723	728	693	764	711	746
	Females	446	522	543	571	602	631	659	621	634	666	688
	Total	951	1099	1146	1190	1272	1354	1387	1314	1398	1377	1434
10-12 y	**Males**	495	541	580	624	663	681	682	708	690	757	712
	Females	418	495	520	547	579	634	627	643	660	644	612
	Total	913	1036	1100	1171	1242	1315	1309	1351	1350	1401	1324
13-14 y	**Males**	146	180	190	217	252	242	252	246	285	286	288
	Females	164	172	173	208	216	201	218	235	242	223	245
	Total	310	352	363	425	468	443	470	481	527	509	533
Over 15 y	**Males**	19	26	22	31	29	44	38	42	54	54	54
	Females	31	33	29	32	38	27	30	45	46	48	34
	Total	50	59	51	63	67	71	68	87	100	102	88
All ages	**Males**	1380	1568	1652	1758	1946	2025	2019	2000	2096	2159	2158
	Females	1249	1429	1496	1600	1691	1744	1808	1845	1885	1880	1903
	Total	2629	2997	3148	3358	3637	3769	3827	3845	3981	4039	4061
All ages over 5 y	**Males over 5 y**	1380	1568	1652	1758	1946	2025	2019	2000	2096	2159	2158
	Females over 5 y	1249	1429	1496	1600	1691	1744	1808	1845	1885	1880	1903
	Total over 5 y	2629	2997	3148	3358	3637	3769	3827	3845	3981	4039	4061
All 5-15 y	**Males 5-15 y**	1361	1542	1630	1727	1917	1981	1981	1958	2042	2105	2104
	Females 5-15 y	1218	1396	1467	1568	1653	1717	1778	1800	1839	1832	1869
	Total 5-15 y	2579	2938	3097	3295	3570	3698	3759	3758	3881	3937	3973

Appendix 3.1 continued (3)

No. pupils by age												
		1901	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
Under 5 yrs	**Males**											
	Females											
	Total											
5-6 y	**Males**	404	421	420	482	472	469	470	545	595	647	582
	Females	371	386	410	368	395	459	468	465	498	519	521
	Total	775	807	830	850	867	928	938	1010	1093	1166	1103
7-9 y	**Males**	759	844	893	898	945	933	935	971	1058	1100	1166
	Females	717	796	799	854	855	838	840	914	985	1039	1045
	Total	1476	1640	1692	1752	1800	1771	1775	1885	3136	2139	2211
10-12 y	**Males**	535	792	797	849	859	878	859	933	950	920	1000
	Females	459	714	725	740	772	782	786	809	872	920	924
	Total	994	1506	1522	1589	1631	1660	1645	1742	1822	1840	1924
13-14 y	**Males**	291	321	328	307	300	329	336	308	387	411	416
	Females	210	245	253	237	266	260	274	292	318	340	335
	Total	501	566	581	544	566	589	610	600	705	751	751
Over 15 y	**Males**	64	77	69	62	62	61	66	66	63	61	63
	Females	45	38	24	37	26	31	47	50	67	64	85
	Total	109	115	93	99	88	92	113	116	130	125	148
All ages	**Males**	2320	2455	2507	2598	2638	2670	2666	2823	3053	3139	3227
	Females	2014	2179	2211	2236	2314	2370	2415	2530	2740	2882	2910
	Total	4334	4634	4718	4834	4952	5040	5081	5353	5793	6021	6137
All ages over 5 y	**Males over 5 y**	2320	2455	2507	2598	2638	2670	2666	2823	3053	3139	3227
	Females over 5 y	2014	2179	2211	2236	2314	2370	2415	2530	2740	2882	2910
	Total over 5 y	4334	4634	4718	4034	4952	5040	5081	5353	5793	6021	6137
All 5-15 y	**Males 5-15 y**	2256	2378	2438	2536	2576	2609	2600	2757	2990	3078	3164
	Females 5-15 y	1969	2141	2187	2199	2288	2339	2368	2480	2673	2818	2825
	Total 5-15 y	4225	4519	4625	4735	4864	4948	4968	5237	5663	5896	5989

Appendix 3.2 – Taranaki Education District gender age ratios for 5-6 y age groups and 13-14 y age group to 7-9 y age group (source E1 reports)

Males	***1879***	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***
5-6 y/7-9 y	0.5326	0.5161	0.6316	0.6900	0.6303	0.6068	0.5942	0.4860	0.4294	0.3675	0.4168	0.4257	0.4229	0.4262	0.4313	0.4955	0.4633	0.4382
13-14 y/7-9 y	0.1916	0.2258	0.2539	0.2372	0.1960	0.3034	0.2772	0.2220	0.2708	0.2108	0.2854	0.2891	0.3120	0.3151	0.3506	0.3761	0.3347	0.3462
Females	***1879***	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***
5-6 y/7-9 y	0.4818	0.6109	0.6752	0.6804	0.6514	0.5136	0.5533	0.5323	0.4795	0.4848	0.4606	0.4260	0.3966	0.4254	0.4238	0.4252	0.3978	0.4158
13-14 y/7-9 y	0.2909	0.2918	0.2920	0.2903	0.3229	0.2745	0.2804	0.2985	0.2795	0.3611	0.3727	0.3677	0.3295	0.3186	0.3643	0.3588	0.3185	0.3308

Males	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.4488	0.3966	0.4937	0.4799	0.5323	0.4988	0.4703	0.5367	0.4995	0.5027	0.5027	0.5613	0.5624	0.5882	0.4991
13-14 y/7-9 y	0.3550	0.3730	0.4023	0.3861	0.3834	0.3803	0.3673	0.3419	0.3175	0.3526	0.3594	0.3172	0.3658	0.3736	0.3568
Females	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.4847	0.4779	0.4489	0.4709	0.5174	0.4849	0.5131	0.4309	0.4620	0.5477	0.5571	0.5088	0.5056	0.4995	0.4986
13-14 y/7-9 y	0.3784	0.3817	0.3348	0.3561	0.2929	0.3078	0.3166	0.2775	0.3111	0.3103	0.3262	0.3195	0.3228	0.3272	0.3206

Appendix 3.3 – Taranaki Education District raw Standards level data and pass/fail rates (source E1 reports)

	1879	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
Total no.	1225	1538	1709	1985	2060	2113	2261	2368	2395	2415	2565	2629	2997	3148
Total males	646	811	886	1023	1053	1133	1189	1229	1276	1244	1315	1380	1568	1652
Total females	579	727	823	962	1007	980	1072	1139	1119	1171	1250	1249	1429	1496
Total below Std 1	190	200	215	245	186	189	391	544	554	622	748	846	975	1004
Males below Std 1	87	95	94	131	104	125	220	298	297	319	404	465	536	549
Females below Std 1	103	105	121	114	82	64	171	246	257	303	344	381	439	455
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	431	519	531	637	699	783	683	548	519	446	415	377	408	503
Males Std 1	236	280	291	337	373	418	374	299	294	238	204	193	212	267
Females Std 1	195	239	240	300	326	365	309	249	225	208	211	184	196	236
Std 1 pass rate of presented	n/a	n/a	0.601	0.587	0.586	0.71	0.726	0.795	0.888	0.886	0.926	0.951	0.877	0.885
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	n/a	n/a	0.399	0.413	0.414	0.290	0.274	0.205	0.112	0.114	0.074	0.049	0.123	0.115
Std 1 fail rate of total Std 1														
Total Std 2	276	329	334	354	392	443	506	477	456	423	437	410	418	452
Males Std 2	132	154	170	168	203	233	248	240	232	223	230	215	204	245
Females Std 2	144	175	164	186	189	210	258	237	224	200	207	195	214	207
Std 2 pass rate of presented			0.744	0.721	0.734	0.342	0.566	0.741	0.696	0.807	0.800	0.877	0.916	0.895
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented			0.256	0.279	0.266	0.658	0.434	0.259	0.304	0.193	0.200	0.123	0.084	0.105
Std 2 fail rate of total Std 2														
Total Std 3	232	313	316	375	409	351	360	460	420	464	449	461	512	530
Males Std 3	122	177	154	189	212	183	203	237	232	256	243	258	271	265
Females Std 3	110	136	162	186	197	168	157	223	188	208	206	203	241	265
Std 3 pass rate of presented			0.583	0.561	0.705	0.307	0.465	0.519	0.588	0.597	0.626	0.676	0.640	0.765
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented			0.417	0.439	0.295	0.693	0.535	0.481	0.412	0.403	0.374	0.324	0.360	0.235
Std 3 fail rate of total Std 3														

Total Std 4	140	135	213	246	214	218	200	204	289	261	297	317	392	358
Males Std 4	82	73	115	132	88	96	90	92	141	110	143	147	206	180
Females Std 4	58	62	98	114	126	122	110	112	148	151	154	170	186	178
Std 4 pass rate of presented			0.690	0.507	0.609	0.354	0.602	0.404	0.567	0.647	0.672	0.576	0.703	0.631
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented			0.310	0.493	0.391	0.646	0.398	0.596	0.433	0.353	0.328	0.424	0.297	0.369
Std 4 fail rate of total Std 4														
Total Std 5	29	53	73	100	113	88	96	105	118	153	163	159	209	206
Males Std 5	19	37	45	51	45	53	42	48	59	75	62	79	98	102
Females Std 5	10	16	28	49	68	35	54	57	59	78	101	80	111	104
Std 5 pass rate of presented			0.585	0.611	0.740	0.273	0.438	0.542	0.407	0.586	0.579	0.553	0.539	0.693
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented			0.415	0.389	0.260	0.727	0.562	0.458	0.593	0.414	0.421	0.447	0.461	0.307
Std 5 fail rate of total Std 5														
Total Std 6	4	10	26	18	39	35	18	28	36	44	54	53	72	78
Males Std 6	2	8	16	9	23	19	8	13	18	21	28	22	35	37
Females Std 6	2	2	10	9	16	16	10	15	18	23	26	31	37	41
Std 6 pass rate of presented			0.333	0.917	0.727	0.273	0.833	0.455	0.550	0.737	0.800	0.605	0.667	0.696
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented			0.667	0.083	0.273	0.727	0.167	0.545	0.450	0.263	0.200	0.395	0.333	0.304
Std 6 fail rate of total Std 6														
Total above Std 6	0	0	1	10	8	6	7	2	3	2	2	6	11	17
Males above Std 6	0	0	1	6	5	6	4	2	3	2	1	1	6	7
Females above Std 6	0	0	0	4	3	0	3	0	0	0	1	5	5	10

Appendix 3.3 continued (2)

	1893	***1894***	***1895***	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***
Total no.	3358	3637	3769	3827	3845	3981	4039	4061	4334	4634	4718	4834	4952	5040
Total males	1758	1946	2025	2019	2000	2096	2159	2158	2320	2455	2507	2598	2638	2670
Total females	1600	1691	1744	1808	1845	1885	1880	1903	2014	2179	2211	2236	2314	2370
Total below Std 1	1051	1175	1187	1153	1122	1128	1116	1162	1376	1373	1416	1417	1428	1548
Males below Std 1	577	667	664	526	615	600	606	633	745	734	758	794	791	815
Females below Std 1	474	508	523	1153	507	528	510	529	631	639	658	623	637	733
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	518	538	529	589	528	580	548	510	544	630	603	600	677	637
Males Std 1	273	287	312	319	276	320	290	259	288	319	331	327	355	350
Females Std 1	245	251	217	270	252	260	258	251	256	311	272	273	322	287
Std 1 pass rate of presented	0.947	0.871	0.824	0.770	0.816	0.864	0.897	0.854	0.865	0.863	0.857			
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	0.053	0.129	0.176	0.230	0.184	0.136	0.103	0.146	0.135	0.137	0.143			
Std 1 fail rate of total Std 1														
Total Std 2	507	526	576	562	604	614	623	558	559	629	679	694	653	650
Males Std 2	259	279	289	309	317	324	346	301	295	325	350	364	344	346
Females Std 2	248	247	287	253	287	290	277	257	264	304	329	330	309	304
Std 2 pass rate of presented	0.905	0.874	0.762	0.758	0.758	0.840	0.851	0.793	0.816	0.816	0.843			
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented	0.095	0.126	0.238	0.241	0.242	0.160	0.149	0.207	0.184	0.184	0.157			
Std 2 fail rate of total Std 2														
Total Std 3	504	620	606	608	608	623	652	609	572	602	644	685	675	654
Males Std 3	271	331	317	307	324	325	354	322	292	320	316	337	362	330
Females Std 3	233	289	289	301	284	298	298	287	280	282	328	348	313	324
Std 3 pass rate of presented	0.643	0.627	0.578	0.615	0.636	0.714	0.768	0.792	0.769	0.720	0.813			
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented	0.357	0.373	0.422	0.385	0.364	0.286	0.232	0.208	0.231	0.280	0.187			
Std 3 fail rate of total Std 3														

Total Std 4	417	410	513	524	506	547	561	582	541	581	570	615	623	585
Males Std 4	208	199	258	258	241	298	305	316	297	308	306	323	299	316
Females Std 4	209	211	255	266	265	249	256	266	244	273	264	292	324	269
Std 4 pass rate of presented	0.627	0.518	0.528	0.545	0.505	0.610	0.674	0.769	0.714	0.658	0.697			
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented	0.373	0.482	0.472	0.455	0.495	0.390	0.326	0.231	0.286	0.342	0.303			
Std 4 fail rate of total Std 4														
Total Std 5	235	253	245	272	318	323	342	397	429	440	438	441	473	497
Males Std 5	111	128	125	136	144	154	164	215	235	242	234	239	253	239
Females Std 5	124	125	120	136	174	169	178	182	194	198	204	202	220	258
Std 5 pass rate of presented	0.520	0.347	0.515	0.484	0.533	0.555	0.668	0.728	0.712	0.643	0.711			
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented	0.480	0.653	0.485	0.516	0.467	0.445	0.332	0.272	0.288	0.357	0.289			
Std 5 fail rate of total Std 5														
Total Std 6	107	95	95	98	128	130	158	192	233	288	257	271	318	332
Males Std 6	53	46	52	52	67	54	74	85	128	153	143	151	176	188
Females Std 6	54	49	43	46	61	76	84	107	105	135	114	120	142	144
Std 6 pass rate of presented	0.640	0.529	0.646	0.561	0.683	0.721	0.703	0.774	0.728	0.726	0.720			
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented	0.360	0.471	0.354	0.439	0.317	0.279	0.297	0.226	0.272	0.274	0.280			
Std 6 fail rate of total Std 6														
Total above Std 6	19	20	18	21	31	36	39	51	80	91	111	111	105	137
Males above Std 6	6	9	8	11	16	21	20	27	40	54	69	63	58	86
Females above Std 6	13	11	10	10	15	15	19	24	40	37	42	48	47	51

Appendix 3.3 continued (3)

	1907	***1908***	***1909***	***1910***	***1911***
Total no.	5081	5353	5793	6021	6137
Total males	2666	2823	3053	3139	3227
Total females	2415	2530	2740	2882	2910
Total below Std 1	1516	1767	2186	2335	2354
Males below Std 1	785	933	1177	1251	1252
Females below Std 1	731	834	1009	1084	1102
Below Std 1 pass rate					
Below Std 1 fail rate					
Total Std 1	636	636	724	728	739
Males Std 1	348	346	385	374	391
Females Std 1	288	290	339	354	348
Std 1 pass rate of presented					
Std 1 pass rate of total Std 1					
Std 1 fail rate of presented					
Std 1 fail rate of total Std 1					
Total Std 2	671	642	668	725	738
Males Std 2	369	341	343	380	376
Females Std 2	302	301	325	345	362
Std 2 pass rate of presented					
Std 2 pass rate of total Std 2					
Std 2 fail rate of presented					
Std 2 fail rate of total Std 2					
Total Std 3	612	683	687	674	681
Males Std 3	306	382	372	350	363
Females Std 3	306	301	315	324	318
Std 3 pass rate of presented					
Std 3 pass rate of total Std 3					
Std 3 fail rate of presented					
Std 3 fail rate of total Std 3					

Total Std 4	590	609	626	622	628
Males Std 4	301	294	315	322	337
Females Std 4	289	315	311	300	291
Std 4 pass rate of presented					
Std 4 pass rate of total Std 4					
Std 4 fail rate of presented					
Std 4 fail rate of total Std 4					
Total Std 5	532	469	475	501	518
Males Std 5	287	248	243	253	284
Females Std 5	245	221	232	248	234
Std 5 pass rate of presented					
Std 5 pass rate of total Std 5					
Std 5 fail rate of presented					
Std 5 fail rate of total Std 5					
Total Std 6	373	405	312	307	346
Males Std 6	186	207	162	150	170
Females Std 6	187	198	150	157	176
Std 6 pass rate of presented					
Std 6 pass rate of total Std 6					
Std 6 fail rate of presented					
Std 6 fail rate of total Std 6					
Total above Std 6	151	142	115	129	133
Males above Std 6	84	72	56	59	54
Females above Std 6	67	70	59	70	79

Appendix 3.4 – Taranaki Education District observed and calculated expected pupil numbers for Standards 4, 5, and 6 (ob = observed; ex = expected; S3 to S4 = {S4 ob – previous year S3 ob}/ previous year S3 ob, as a %), this is the change in pupil numbers in successive years for successive Standards levels expressed as a percentage of the lower level; similarly for S4 to S5 and S5 to S6)

	1880	*1881*	*1882*	*1883*	*1884*	*1885*	*1886*	*1887*	*1888*	*1889*	*1890*	*1891*	*1892*
S3 ob	313	316	375	409	351	360	460	420	464	449	461	512	530
S4 ob	135	213	246	214	218	200	204	289	261	297	317	392	358
S3 pass rate		0.583	0.561	0.705	0.307	0.465	0.519	0.588	0.597	0.626	0.676	0.64	0.765
S4 fail rate		0.31	0.493	0.391	0.646	0.398	0.596	0.433	0.353	0.328	0.424	0.297	0.369
S4 ex			250.26	331.65	372.02	248.59	247.00	360.32	372.10	369.14	378.49	446.04	444.10
S3 to S4			-22.1519	-42.9333	-46.6993	-43.0199	-43.3333	-37.1739	-37.8571	-35.9914	-29.3987	-14.9675	-30.0781
S4 Ob/Ex			0.9830	0.6453	0.5860	0.8046	0.8259	0.8021	0.7014	0.8046	0.8375	0.8788	0.8061
S5 ob	53	73	100	113	88	96	105	118	153	163	159	209	206
S4 pass rate		0.69	0.507	0.609	0.354	0.602	0.404	0.567	0.647	0.672	0.576	0.703	0.631
S5 fail rate		0.415	0.389	0.26	0.727	0.562	0.458	0.593	0.414	0.421	0.447	0.461	0.307
S5 ex			177.27	163.62	159.71	141.15	174.35	130.51	233.84	232.21	268.21	253.67	371.93
S4 to S5			-53.0516	-54.0650	-58.8785	-55.9633	-47.5000	-42.1569	-47.0588	-37.5479	-46.4646	-34.0694	-47.4490
S5 Ob/Ex			0.5641	0.6906	0.5510	0.6801	0.6022	0.9042	0.6543	0.7020	0.5928	0.8239	0.5539
S6 ob	10	26	18	39	35	18	28	36	44	54	53	72	78
S5 pass rate		0.585	0.611	0.74	0.273	0.438	0.542	0.407	0.586	0.579	0.553	0.539	0.693
S6 fail rate		0.667	0.083	0.273	0.727	0.167	0.545	0.45	0.263	0.2	0.395	0.333	0.304
S6 ex			60.05	62.59	94.27	49.47	45.05	72.17	64.23	101.23	105.18	108.86	136.63
S5 to S6			-75.3425	-61.0000	-69.0265	-79.5455	-70.8333	-65.7143	-62.7119	-64.7059	-67.4847	-54.7170	-62.6794
S6 Ob/Ex			0.2998	0.6231	0.3713	0.3639	0.6215	0.4988	0.6851	0.5334	0.5039	0.6614	0.5709

Appendix 3.4 continued

	1893	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*	*1901*	*1902*	*1903*	*1904*
S3 ob	504	620	606	608	608	623	652	609	572	602	644	685
S4 ob	417	410	513	524	506	547	561	582	541	581	570	615
S3 pass rate	0.643	0.627	0.578	0.615	0.636	0.714	0.768	0.792	0.769	0.72	0.813	
S4 fail rate	0.373	0.482	0.472	0.455	0.495	0.39	0.326	0.231	0.286	0.342	0.303	
S4 ex	537.55	479.61	586.36	592.40	612.34	637.16	658.15	683.62	616.77	594.59	632.14	696.28
S3 to S4	-21.3208	-18.6508	-17.2581	-13.5314	-16.7763	-10.0329	-9.9518	-10.7362	-11.1658	1.5734	-5.3156	-4.5031
S4 Ob/Ex	0.7757	0.8549	0.8749	0.8845	0.8263	0.8585	0.8524	0.8513	0.8772	0.9771	0.9017	0.8833
S5 ob	235	253	245	272	318	323	342	397	429	440	438	441
S4 pass rate	0.627	0.518	0.528	0.545	0.505	0.61	0.674	0.769	0.714	0.658	0.697	
S5 fail rate	0.48	0.653	0.485	0.516	0.467	0.445	0.332	0.272	0.288	0.357	0.289	
S5 ex	289.14	374.26	377.59	389.69	425.93	404.04	477.41	491.66	555.54	509.83	539.38	523.87
S4 to S5	-34.3575	-39.3285	-40.2439	-46.9786	-39.3130	-36.1660	-37.4771	-29.2335	-26.2887	-18.6691	-24.6127	-22.6316
S5 Ob/Ex	0.8128	0.6760	0.6489	0.6980	0.7466	0.7994	0.7164	0.8075	0.7722	0.8630	0.8120	0.8418
S6 ob	107	95	95	98	128	130	158	192	233	288	257	271
S5 pass rate	0.52	0.347	0.515	0.484	0.533	0.555	0.668	0.728	0.712	0.643	0.711	
S6 fail rate	0.36	0.471	0.354	0.439	0.317	0.279	0.297	0.226	0.272	0.274	0.28	
S6 ex	166.47	160.72	132.54	159.81	174.67	210.07	215.54	275.38	332.41	368.82	361.83	383.38
S5 to S6	-48.0583	-59.5745	-62.4506	-60.0000	-52.9412	-59.1195	-51.0836	-43.8596	-41.3098	-32.8671	-41.5909	-38.1279
S6 Ob/Ex	0.6428	0.5911	0.7168	0.6132	0.7328	0.6188	0.7331	0.6972	0.7009	0.7809	0.7103	0.7069

Appendix 4.1 – Wanganui Education District raw age data and gender ratios for 7-9 y age groups (source E1 reports)

No. pupils by age												
		1879	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***
Under 5 y	**Males**	106	141									
	Females	106	118									
	Total	212	259									
5-6 y	**Males**	397	476	527	714	698	663	619	580	636	648	677
	Females	376	477	551	572	544	580	525	536	572	579	601
	Total	773	953	1078	1286	1242	1243	1144	1116	1208	1227	1278
7-9 y	**Males**	710	820	844	1253	1038	1088	1237	1311	1320	1398	1415
	Females	610	702	722	1159	979	994	1098	1143	1225	1244	1338
	Total	1320	1522	1566	2412	2017	2082	2335	2454	2545	2642	2753
10-12 y	**Males**	543	623	688	1003	782	789	892	967	1126	1207	1269
	Females	485	566	638	875	732	790	837	916	1047	1079	1164
	Total	1028	1189	1326	1878	1514	1579	1729	1883	2173	2286	2433
13-14 y	**Males**	172	185	213	306	283	343	307	306	338	339	379
	Females	166	187	212	297	278	284	256	242	298	320	341
	Total	338	372	425	603	561	627	563	548	636	659	720
Over 15 y	**Males**	40	49	43	43	46	40	64	50	63	56	42
	Females	34	50	50	49	66	56	64	54	54	48	49
	Total	74	99	93	92	112	96	128	104	117	104	91
All ages	**Males**	1968	2294	2315	3319	2847	2923	3119	3214	3483	3648	3782
	Females	1777	2100	2173	2952	2599	2704	2780	2891	3196	3270	3493
	Total	3745	4394	4488	6271	5446	5627	5899	6105	6679	6918	7275
All ages 5 y & over	**Males 5 y & over**	1862	2153	2315	3319	2847	2923	3119	3214	3483	3648	3782
	Females 5 y & over	1671	1982	2173	2952	2599	2704	2780	2891	3196	3270	3493
	Total 5 y & over	3533	4135	4488	6271	5446	5627	5899	6105	6679	6918	7275
All 5-15 y	**Males 5-15 y**	1822	2104	2272	3276	2801	2883	3055	3164	3420	3592	3740
	Females 5-15 y	1637	1932	2123	2903	2533	2648	2716	2837	3142	3222	3444
	Total 5-15 y	3459	4036	4395	6179	5334	5531	5771	6001	6562	6814	7184

Appendix 4.1 continued (2)

		1890	*1891*	*1892*	*1893*	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	686	706	726	744	855	822	866	877	853	872	922
	Females	638	661	680	709	736	750	860	847	814	842	896
	Total	1324	1367	1406	1453	1591	1572	1726	1724	1667	1714	1818
7-9 y	**Males**	1497	1559	1588	1622	1721	1765	1765	1819	1798	1852	1926
	Females	1344	1422	1515	1526	1637	1656	1644	1698	1737	1777	1841
	Total	2841	2981	3103	3148	3358	3421	3409	3517	3535	3629	3767
10-12 y	**Males**	1368	1385	1429	1479	1604	1693	1746	1725	1800	1782	1784
	Females	1268	1281	1298	1351	1458	1561	1626	1655	1634	1631	1683
	Total	2636	2666	2727	2830	3062	3254	3372	3380	3434	3413	3467
13-14 y	**Males**	418	456	492	546	556	586	612	699	665	670	725
	Females	403	415	422	458	499	583	574	597	631	655	613
	Total	821	871	914	1004	1055	1169	1186	1296	1296	1325	1338
Over 15 y	**Males**	50	47	74	85	93	103	111	141	142	130	125
	Females	66	83	70	75	85	95	123	132	131	110	114
	Total	116	130	144	160	178	198	234	273	173	240	239
All ages	**Males**	4019	4153	4309	4476	4829	4969	5100	5261	5258	5306	5482
	Females	3719	3862	3985	4119	4415	4645	4827	4929	4947	5015	5147
	Total	7738	8015	8294	8595	9244	9614	9927	10190	10205	10321	10629
All ages 5 y & over	**Males 5 y & over**	4019	4153	4309	4476	4829	4969	5100	5261	5258	5306	5482
	Females 5 y & over	3719	3862	3985	4119	4415	4645	4827	4929	4947	5015	5147
	Total 5 y & over	7738	8015	8294	8595	9244	9614	9927	10190	10205	10321	10629
All 5-15 y	**Males 5-15 y**	3969	4106	4235	4391	4736	4866	4989	5120	5116	5176	5357
	Females 5-15 y	3653	3779	3915	4044	4330	4550	4704	4797	4816	4905	5033
	Total 5-15 y	7622	7885	8150	8435	9066	9416	9693	9917	9932	10081	10390

Appendix 4.1 continued (3)

		1901	*1902*	*1903*	*1904*	*1905*	*1906*	*1907*	*1908*	*1909*	*1910*	*1911*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	1013	972	1099	1143	1177	1263	1265	1295	1322	1382	1374
	Females	939	897	946	1050	1046	1010	1039	1098	1154	1206	1214
	Total	1952	1869	2045	2193	2223	2273	2304	2393	2476	2588	2588
7-9 y	**Males**	1939	2030	2125	2277	2360	2406	2410	2452	2505	2600	2712
	Females	1854	1910	2033	2013	2107	2090	2154	2219	2308	2325	2447
	Total	3793	3040	4158	4290	4467	4496	4564	4671	4813	4925	5159
10-12 y	**Males**	1886	1914	1985	2019	2099	2161	2254	2324	2349	2430	2500
	Females	1740	1797	1834	1952	1989	2064	2009	2095	2024	2118	2235
	Total	3626	3711	3819	3971	4088	4225	4263	4419	4373	4548	4735
13-14 y	**Males**	724	751	777	809	797	835	887	951	1012	1029	1100
	Females	518	666	664	689	686	738	787	788	848	854	883
	Total	1242	1417	1441	1498	1483	1573	1674	1739	1860	1883	1983
Over 15 y	**Males**	140	187	170	136	121	148	129	146	177	172	183
	Females	133	133	169	113	104	116	112	144	150	153	147
	Total	273	320	339	249	225	264	241	293	327	325	330
All ages	**Males**	5702	5854	6156	6384	6554	6813	6945	7168	7365	7613	7869
	Females	5264	5403	5646	5817	5932	6018	6101	6344	6484	6656	6926
	Total	10966	11257	11802	12201	12486	12831	13046	13512	13849	14269	14795
All ages 5 y & over	**Males 5 y & over**	5702	5854	6156	6384	6554	6813	6945	7168	7365	7613	7869
	Females 5 y & over	5264	5403	5646	5817	5932	6018	6101	6344	6484	6656	6926
	Total 5 y & over	10966	11257	11802	12201	12486	12831	13046	13512	13849	14269	14795
All 5-15 y	**Males 5-15 y**	5562	5667	5986	6248	6433	6665	6816	7022	7188	7441	7686
	Females 5-15 y	5131	5270	5477	5704	5828	5902	5989	6200	6334	6503	6779
	Total 5-15 y	10693	10937	11463	11952	12261	12567	12805	13222	13522	13944	14465

Appendix 4.2 – Wanganui Education District gender age ratios for 5-6 y age groups and 13-14 y age group to 7-9 y age group (source E1 reports)

Males	***1879***	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***
5-6 y/7-9 y	0.5592	0.5805	0.6244	0.5698	0.6724	0.6094	0.5004	0.4424	0.4818	0.4635	0.4784	0.4582	0.4529	0.4572	0.4587	0.4968	0.4657
13-14 y/7-9 y	0.2423	0.2256	0.2524	0.2442	0.2726	0.3153	0.2482	0.2334	0.2561	0.2425	0.2678	0.2792	0.2925	0.3098	0.3366	0.3231	0.3320
Females	***1879***	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***
5-6 y/7-9 y	0.6164	0.6795	0.7632	0.4935	0.5557	0.5835	0.4781	0.4689	0.4669	0.4654	0.4492	0.4747	0.4648	0.4488	0.4646	0.4496	0.4529
13-14 y/7-9 y	0.2721	0.2664	0.2936	0.2563	0.2840	0.2857	0.2332	0.2117	0.2433	0.2572	0.2549	0.2999	0.2918	0.2785	0.3001	0.3048	0.3521

Males	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.4907	0.4821	0.4744	0.4708	0.4787	0.5224	0.4788	0.5172	0.5020	0.4987	0.5249	0.5249	0.5281	0.5277	0.5315	0.5066
13-14 y/7-9 y	0.3467	0.3843	0.3699	0.3618	0.3764	0.3734	0.3700	0.3656	0.3553	0.3377	0.3470	0.3680	0.3878	0.4040	0.3958	0.4056
Females	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.5231	0.4988	0.4686	0.4738	0.4867	0.5065	0.4696	0.4653	0.5216	0.4964	0.4833	0.4824	0.4948	0.5000	0.5187	0.4961
13-14 y/7-9 y	0.3491	0.3516	0.3633	0.3686	0.3330	0.2794	0.3487	0.3266	0.3423	0.3256	0.3531	0.3654	0.3551	0.3674	0.3673	0.3609

Appendix 4.3 – Wanganui Education District raw Standards level data and pass/fail rates (source E1 reports)

	1879	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
Total no.	1090	5225	4488	5004	5466	5627	5899	6105	6679	6918	7275	7738	8015	8294
Total males	574	2153	2315	2587	2847	2923	3119	3214	3483	3648	3782	4019	4153	4309
Total females	516	1982	2173	2417	2599	2704	2780	2891	3196	3270	3493	3719	3862	3985
Total below Std 1	190	1076	803	935	1111	1340	1489	1468	1690	2078	2231	2441	2482	2379
Males below Std 1	87	563	390	511	618	723	846	791	909	1128	1197	1336	1294	1260
Females below Std 1	103	513	413	424	493	617	643	677	781	950	1034	1105	1188	1119
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	431	939	1082	1136	1117	1237	1370	1415	1405	1151	1134	1169	1252	1412
Males Std 1	236	490	568	602	592	673	725	768	734	632	588	614	670	709
Females Std 1	195	449	514	534	525	564	645	647	671	519	546	555	582	703
Std 1 pass rate of presented	n/a	0.834	0.857	0.811	0.893	0.635	0.593	0.829	0.849	0.878	0.872	0.887	0.905	0.868
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	n/a	0.166	0.143	0.189	0.107	0.365	0.407	0.171	0.151	0.122	0.128	0.113	0.095	0.132
Std 1 fail rate of total Std 1														
Total Std 2	276	894	841	861	938	891	873	1045	1181	1126	1146	1117	1130	1259
Males Std 2	132	479	446	437	484	434	455	543	627	573	612	555	600	651
Females Std 2	144	415	395	424	454	457	418	502	554	553	534	562	530	608
Std 2 pass rate of presented		0.787	0.790	0.798	0.900	0.665	0.597	0.758	0.783	0.850	0.828	0.876	0.909	0.881
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented		0.213	0.210	0.202	0.100	0.335	0.403	0.242	0.217	0.150	0.172	0.124	0.091	0.119
Std 2 fail rate of total Std 2														
Total Std 3	232	811	772	904	871	893	872	880	1064	1170	1176	1208	1246	1280
Males Std 3	122	423	391	473	456	466	412	430	540	623	608	639	641	668
Females Std 3	110	388	381	431	415	427	460	450	524	547	568	569	605	612
Std 3 pass rate of presented		0.721	0.779	0.599	0.849	0.568	0.556	0.650	0.641	0.660	0.693	0.800	0.708	0.700
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented		0.279	0.221	0.401	0.151	0.432	0.444	0.350	0.359	0.340	0.307	0.200	0.292	0.300
Std 3 fail rate of total Std 3														

Total Std 4	140	430	588	620	688	655	627	687	695	765	898	1015	1008	968
Males Std 4	82	199	308	306	345	316	328	351	332	362	437	501	519	507
Females Std 4	58	231	280	314	343	339	299	336	363	403	461	514	489	461
Std 4 pass rate of presented		0.570	0.768	0.678	0.856	0.520	0.596	0.542	0.606	0.667	0.598	0.694	0.623	0.650
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented		0.430	0.232	0.322	0.144	0.480	0.404	0.458	0.394	0.333	0.402	0.306	0.377	0.350
Std 4 fail rate of total Std 4														
Total Std 5	29	146	260	349	409	380	417	365	408	366	455	507	551	618
Males Std 5	19	79	130	157	207	203	220	193	217	182	229	239	277	332
Females Std 5	10	67	130	192	202	177	197	172	191	184	226	268	274	286
Std 5 pass rate of presented		0.822	0.904	0.694	0.938	0.510	0.575	0.562	0.647	0.706	0.606	0.751	0.650	0.652
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented		0.178	0.096	0.306	0.062	0.490	0.425	0.438	0.353	0.294	0.394	0.249	0.350	0.348
Std 5 fail rate of total Std 5														
Total Std 6	4	66	93	145	220	169	182	190	182	222	179	212	280	294
Males Std 6	2	38	51	69	99	79	97	107	99	128	84	102	124	146
Females Std 6	2	28	42	76	121	90	85	83	83	94	95	110	156	148
Std 6 pass rate of presented		0.903	0.977	0.778	0.979	0.695	0.700	0.628	0.652	0.832	0.660	0.781	0.636	0.780
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented		0.097	0.023	0.222	0.021	0.305	0.300	0.372	0.347	0.168	0.340	0.219	0.364	0.220
Std 6 fail rate of total Std 6														
Total above Std 6	0	32	49	54	92	62	69	55	54	40	56	69	66	84
Males above Std 6	0	23	31	32	46	29	36	31	25	20	27	33	28	36
Females above Std 6	0	9	18	22	46	33	33	24	29	20	29	36	38	48

Appendix 4.3 continued (2)

	1893	***1894***	***1895***	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***
Total no.	8595	9244	9614	9927	10190	10205	10321	10629	10966	11257	11802	12201	12486	12831
Total males	4476	4829	4969	5100	5261	5258	5306	5482	5702	5854	6156	6384	6554	6813
Total females	4119	4415	4645	4827	4929	4947	5015	5147	5264	5403	5646	5817	5932	6018
Total below Std 1	2373	2524	2563	2664	2633	2534	2630	2942	2993	2969	3160	3458	3521	3711
Males below Std 1	1222	1355	1356	1374	1383	1311	1353	1528	1594	1590	1720	1874	1920	2065
Females below Std 1	1151	1169	1207	1290	1250	1223	1277	1414	1399	1379	1440	1584	1601	1646
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	1477	1505	1408	1448	1386	1404	1327	1285	1397	1395	1448	1449	1581	1653
Males Std 1	796	806	762	772	713	711	689	655	721	725	734	774	848	878
Females Std 1	681	699	646	676	673	693	638	630	676	670	714	675	733	755
Std 1 pass rate of presented	0.834	0.862	0.892	0.917	0.935	0.969	0.941	0.91	0.911	0.933	0.951			
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	0.166	0.138	0.108	0.083	0.065	0.031	0.059	0.09	0.089	0.067	0.049			
Std 1 fail rate of total Std 1														
Total Std 2	1358	1515	1520	1442	1395	1420	1376	1391	1385	1479	1539	1524	1504	1658
Males Std 2	679	772	763	761	726	753	693	724	684	767	806	786	819	877
Females Std 2	679	743	757	681	669	667	683	667	701	712	733	738	685	781
Std 2 pass rate of presented	0.852	0.83	0.888	0.895	0.914	0.941	0.944	0.931	0.912	0.895	0.922			
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented	0.148	0.17	0.112	0.105	0.086	0.059	0.056	0.069	0.088	0.105	0.078			
Std 2 fail rate of total Std 2														
Total Std 3	1302	1464	1620	1626	1570	1518	1595	1498	1477	1408	1544	1642	1617	1545
Males Std 3	709	746	813	813	848	807	837	750	776	689	797	860	819	825
Females Std 3	593	718	807	813	722	711	758	748	701	719	747	782	798	720
Std 3 pass rate of presented	0.733	0.705	0.737	0.752	0.785	0.825	0.793	0.861	0.821	0.869	0.878			
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented	0.267	0.295	0.263	0.248	0.215	0.175	0.207	0.139	0.179	0.131	0.122			
Std 3 fail rate of total Std 3														

Total Std 4	1081	1199	1234	1402	1513	1474	1413	1428	1393	1465	1430	1465	1496	1481
Males Std 4	545	632	626	713	748	771	753	754	736	780	692	727	780	755
Females Std 4	536	567	608	689	765	703	660	674	657	685	738	738	716	726
Std 4 pass rate of presented	0.629	0.654	0.709	0.647	0.711	0.8	0.762	0.877	0.796	0.823	0.868			
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented	0.371	0.346	0.291	0.353	0.289	0.2	0.238	0.123	0.204	0.177	0.132			
Std 4 fail rate of total Std 4														
Total Std 5	606	619	793	782	969	1070	1071	1134	1186	1188	1234	1273	1286	1363
Males Std 5	314	293	419	386	477	522	547	593	621	601	653	631	615	707
Females Std 5	292	326	374	396	492	548	524	541	565	587	581	642	671	656
Std 5 pass rate of presented	0.693	0.618	0.626	0.641	0.752	0.745	0.67	0.858	0.783	0.845	0.879			
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented	0.307	0.382	0.374	0.359	0.248	0.255	0.33	0.142	0.217	0.155	0.121			
Std 5 fail rate of total Std 5														
Total Std 6	314	324	359	437	521	538	645	683	750	817	872	959	981	1034
Males Std 6	175	177	165	228	252	281	313	356	383	437	471	500	501	501
Females Std 6	139	147	194	209	269	257	332	327	367	380	401	459	480	533
Std 6 pass rate of presented	0.754	0.569	0.679	0.64	0.764	0.891	0.663	0.835	0.779	0.849	0.809			
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented	0.246	0.431	0.321	0.37	0.236	0.109	0.337	0.165	0.221	0.151	0.191			
Std 6 fail rate of total Std 6														
Total above Std 6	84	94	117	126	203	247	264	268	385	536	575	431	500	386
Males above Std 6	36	48	65	53	114	102	121	122	187	265	283	232	252	205
Females above Std 6	48	46	52	73	89	145	143	146	198	271	292	199	248	181

Appendix 4.3 continued (3)

	1907	***1908***	***1909***	***1910***	***1911***
Total no.	13046	13512	13849	14269	14795
Total males	6945	7168	7365	7613	7869
Total females	6101	6344	6484	6656	6926
Total below Std 1	4190	4734	5088	5209	5536
Males below Std 1	2312	2573	2730	2854	2977
Females below Std 1	1878	2161	2358	2355	2559
Below Std 1 pass rate					
Below Std 1 fail rate					
Total Std 1	1578	1708	1741	1760	1918
Males Std 1	845	908	886	931	1035
Females Std 1	733	800	855	829	883
Std 1 pass rate of presented					
Std 1 pass rate of total Std 1					
Std 1 fail rate of presented					
Std 1 fail rate of total Std 1					
Total Std 2	1642	1609	1600	1709	1663
Males Std 2	872	849	857	879	868
Females Std 2	770	760	743	830	795
Std 2 pass rate of presented					
Std 2 pass rate of total Std 2					
Std 2 fail rate of presented					
Std 2 fail rate of total Std 2					
Total Std 3	1618	1671	1603	1620	1775
Males Std 3	878	876	858	838	918
Females Std 3	740	795	745	782	857
Std 3 pass rate of presented					
Std 3 pass rate of total Std 3					
Std 3 fail rate of presented					
Std 3 fail rate of total Std 3					

Total Std 4	1418	1426	1436	1503	1474
Males Std 4	740	782	777	801	785
Females Std 4	678	644	659	702	689
Std 4 pass rate of presented					
Std 4 pass rate of total Std 4					
Std 4 fail rate of presented					
Std 4 fail rate of total Std 4					
Total Std 5	1366	1287	1244	1267	1271
Males Std 5	695	653	677	673	670
Females Std 5	671	634	567	594	601
Std 5 pass rate of presented					
Std 5 pass rate of total Std 5					
Std 5 fail rate of presented					
Std 5 fail rate of total Std 5					
Total Std 6	886	843	880	923	909
Males Std 6	424	410	441	499	490
Females Std 6	462	433	439	424	419
Std 6 pass rate of presented					
Std 6 pass rate of total Std 6					
Std 6 fail rate of presented					
Std 6 fail rate of total Std 6					
Total above Std 6	348	234	257	278	249
Males above Std 6	179	117	139	138	126
Females above Std 6	169	117	118	140	123

Appendix 4.4 – Wanganui Education District observed and calculated expected pupil numbers for Standards 4, 5, and 6 (ob = observed; ex = expected; S3 to S4 = {S4 ob – previous year S3 ob}/ previous year S3 ob, as a %), this is the change in pupil numbers in successive years for successive Standards levels expressed as a percentage of the lower level; similarly for S4 to S5 and S5 to S6)

	1880	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
S3 ob	811	772	904	871	893	872	880	1064	1170	1176	1208	1246	1280
S4 ob	430	588	620	688	655	627	687	695	765	898	1015	1008	968
S3 pass rate	0.721	0.779	0.599	0.849	0.568	0.556	0.65	0.641	0.66	0.693	0.8	0.708	0.7
S4 fail rate	0.43	0.232	0.322	0.144	0.48	0.404	0.458	0.394	0.333	0.402	0.306	0.377	0.35
S4 ex		769.63	737.80	741.14	838.55	821.62	738.14	886.65	955.85	1026.95	1175.96	1276.99	1262.18
S3 to S4		-27.4969	-19.6891	-23.8938	-24.7991	-29.7872	-21.2156	-21.0227	-28.1015	-23.2479	-13.6905	-16.5563	-22.3114
S4 Ob/Ex		0.7640	0.8403	0.9283	0.7811	0.7631	0.9307	0.7839	0.8003	0.8744	0.8631	0.7894	0.7669
S5 ob	146	260	349	409	380	417	365	408	366	455	507	551	618
S4 pass rate	0.57	0.768	0.678	0.856	0.52	0.596	0.542	0.606	0.667	0.598	0.694	0.623	0.65
S5 fail rate	0.178	0.096	0.306	0.062	0.49	0.425	0.438	0.353	0.294	0.394	0.249	0.35	0.348
S5 ex		271.09	476.54	527.15	614.29	526.80	550.92	532.22	565.19	617.86	716.27	830.65	820.83
S4 to S5		-39.5349	-40.6463	-34.0323	-44.7674	-36.3359	-41.7863	-40.6114	-47.3381	-40.5229	-43.5412	-45.7143	-38.6905
S5 Ob/Ex		0.9591	0.7324	0.7759	0.6186	0.7916	0.6625	0.7666	0.6476	0.7364	0.7078	0.6633	0.7529
S6 ob	66	93	145	220	169	182	190	182	222	179	212	280	294
S5 pass rate	0.822	0.904	0.694	0.938	0.51	0.575	0.562	0.647	0.706	0.606	0.751	0.65	0.652
S6 fail rate	0.097	0.023	0.222	0.021	0.305	0.3	0.372	0.347	0.168	0.34	0.219	0.364	0.22
S6 ex		126.41	237.18	274.40	388.26	245.35	294.38	275.81	327.13	295.69	336.59	427.19	460.07
S5 to S6		-36.3014	-44.2308	-36.9628	-58.6797	-52.1053	-54.4365	-50.1370	-45.5882	-51.0929	-53.4066	-44.7732	-46.6425
S6 Ob/Ex		0.7357	0.6114	0.8018	0.4353	0.7418	0.6454	0.6599	0.6786	0.6054	0.6298	0.6555	0.6390

Appendix 4.4 continued

	1893	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*	*1901*	*1902*	*1903*	*1904*
S3 ob	1302	1464	1620	1626	1570	1518	1595	1498	1477	1408	1544	1642
S4 ob	1081	1199	1234	1402	1513	1474	1413	1428	1393	1465	1430	1465
S3 pass rate	0.733	0.705	0.737	0.752	0.785	0.825	0.793	0.861	0.821	0.869	0.878	
S4 fail rate	0.371	0.346	0.291	0.353	0.289	0.2	0.238	0.123	0.204	0.177	0.132	
S4 ex	1234.80	1355.42	1446.97	1553.03	1717.66	1669.71	1547.15	1601.13	1465.42	1496.79	1482.86	1544.39
S3 to S4	-15.5469	-7.9109	-15.7104	-13.4568	-6.9496	-6.1146	-6.9170	-10.4702	-7.0093	-0.8125	1.5625	-5.1166
S4 Ob/Ex	0.8754	0.8846	0.8528	0.9027	0.8809	0.8828	0.9133	0.8919	0.9506	0.9788	0.9644	0.9486
S5 ob	606	619	793	782	969	1070	1071	1134	1186	1188	1234	1273
S4 pass rate	0.629	0.654	0.709	0.647	0.711	0.8	0.762	0.877	0.796	0.823	0.868	
S5 fail rate	0.307	0.382	0.374	0.359	0.248	0.255	0.33	0.142	0.217	0.155	0.121	
S5 ex	844.26	865.99	1020.60	1171.49	1187.83	1316.06	1452.05	1430.14	1413.38	1366.19	1389.84	1390.55
S4 to S5	-37.3967	-42.7382	-33.8616	-36.6288	-30.8845	-29.2796	-27.3406	-19.7452	-16.9468	-14.7164	-15.7679	-10.9790
S5 Ob/Ex	0.7178	0.7148	0.7770	0.6675	0.8158	0.8130	0.7376	0.7929	0.8391	0.8696	0.8879	0.9155
S6 ob	314	324	359	437	521	538	645	683	750	817	872	959
S5 pass rate	0.693	0.618	0.626	0.641	0.752	0.745	0.67	0.858	0.783	0.845	0.879	
S6 fail rate	0.246	0.431	0.321	0.37	0.236	0.109	0.337	0.165	0.221	0.151	0.191	
S6 ex	467.62	497.20	522.19	611.66	662.95	851.64	855.79	934.94	1085.67	1094.39	1127.23	1251.24
S5 to S6	-49.1909	-46.5347	-42.0032	-44.8928	-33.3760	-44.4788	-39.7196	-36.2278	-33.8624	-31.1130	-26.5993	-22.2853
S6 Ob/Ex	0.6715	0.6516	0.6875	0.7145	0.7859	0.6317	0.7537	0.7305	0.6908	0.7465	0.7736	0.7664

Appendix 5.1 – Wellington Education District raw age data and gender ratios for 7-9 y age groups (source E1 reports)

No. pupils by age												
		1879	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***
Under 5 y	**Males**	198	150									
	Females	167	168									
	Total	365	318									
5-6 y	**Males**	657	734	787	714	869	831	1044	978	818	910	994
	Females	583	669	728	572	741	796	871	884	749	943	958
	Total	1240	1403	1515	1286	1610	1627	1915	1862	1567	1853	1952
7-9 y	**Males**	1096	1097	1151	1253	1312	1530	1672	1752	1797	1966	1929
	Females	864	928	979	1159	1209	1318	1588	1660	1684	1797	1918
	Total	1960	2025	2130	2412	2521	2848	3260	3412	3481	3763	3847
10-12 y	**Males**	852	929	1005	1003	1050	1076	1092	1409	1844	1673	1744
	Females	716	780	824	875	913	1008	986	1277	1706	1518	1648
	Total	1568	1709	1829	1878	1963	2084	2078	2686	3550	3191	3392
13-14 y	**Males**	227	281	294	306	325	336	344	396	442	440	540
	Females	204	268	276	297	309	363	328	369	424	456	527
	Total	431	549	570	603	634	699	672	765	866	896	1067
Over 15 y	**Males**	26	37	46	43	36	56	58	50	65	64	73
	Females	43	41	57	49	76	81	56	69	82	70	88
	Total	69	78	103	92	112	137	114	119	147	134	161
All ages	**Males**	3056	3228	3283	3319	3592	3829	4210	4585	4966	5053	5280
	Females	2577	2854	2864	2952	3248	3566	3829	4259	4645	4784	5139
	Total	5633	6082	6147	6271	6840	7395	8039	8844	9611	9837	10419
All ages 5 y & over	**Males 5 y & over**	2858	3078	3283	3319	3592	3829	4210	4585	4966	5053	5280
	Females 5 y & over	2410	2686	2864	2952	3248	3566	3829	4259	4645	4784	5139
	Total 5 y & over	5268	5764	6147	6271	6840	7395	8039	8844	9611	9837	10419
All 5-15 y	**Males 5-15 y**	2832	3041	3237	3276	3556	3773	4152	4535	4901	4989	5207
	Females 5-15 y	2367	2645	2807	2903	3172	3485	3773	4190	4563	4714	5051
	Total 5-15 y	5199	5686	6044	6179	6728	7258	7925	8725	9464	9703	10258

Appendix 5.1 continued (2)

		1890	*1891*	*1892*	*1893*	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	1023	1058	1157	1129	1190	1207	1265	1251	1362	1367	1369
	Females	971	993	1090	1094	1098	1056	1152	1216	1194	1194	1195
	Total	1994	2051	2247	2223	2288	2263	2417	2467	2556	2561	2564
7-9 y	**Males**	1993	2087	2185	2290	2275	2376	2448	2549	2666	2644	2642
	Females	1942	1941	2045	2168	2216	2285	2449	2348	2403	2465	2422
	Total	3935	4028	4234	4458	4491	4661	4897	4897	5069	5109	5064
10-12 y	**Males**	1812	1961	1995	2043	2162	2284	2324	2370	2453	2570	2573
	Females	1677	1782	1918	1904	1980	2091	2083	2202	2363	2387	2381
	Total	3489	3743	3913	3947	4142	4375	4407	4572	4816	4957	4954
13-14 y	**Males**	568	643	663	744	761	790	875	979	908	959	946
	Females	532	538	620	700	721	729	721	875	819	905	872
	Total	1100	1181	1283	1444	1482	1519	1596	1854	1727	1864	1818
Over 15 y	**Males**	61	81	81	100	88	120	121	107	134	130	125
	Females	74	74	87	82	81	110	103	134	130	147	133
	Total	135	155	168	182	169	230	224	241	264	277	258
All ages	**Males**	5457	5830	6085	6306	6476	6777	7033	7256	7523	7670	7655
	Females	5196	5328	5755	5948	6096	6271	6508	6775	6909	7098	7003
	Total	10653	11158	11840	12254	12572	13048	13541	14031	14432	14768	14658
All ages 5 y & over	**Males 5 y & over**	5457	5830	6085	6306	6476	6777	7033	7256	7523	7670	7655
	Females 5 y & over	5196	5328	5755	5948	6096	6271	6508	6775	6909	7098	7003
	Total 5 y & over	10653	11158	11840	12254	12572	13048	13541	14031	14432	14768	14658
All 5-15 y	**Males 5-15 y**	5396	5749	6004	6206	6388	6657	6912	7149	7389	7540	7530
	Females 5-15 y	5122	5254	5668	5866	6015	6161	6405	6641	6779	6951	6870
	Total 5-15 y	10518	11003	11672	12072	12403	12818	13317	13790	14168	14491	14400

Appendix 5.1 continued (3)

		1901	*1902*	*1903*	*1904*	*1905*	*1906*	*1907*	*1908*	*1909*	*1910*	*1911*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	1433	1375	1444	1466	1555	1615	1545	1800	1750	1835	1819
	Females	1231	1277	1400	1324	1271	1388	1351	1500	1594	1589	1645
	Total	2664	2652	2844	2790	2826	3003	2896	3300	3344	3424	3464
7-9 y	**Males**	2644	2700	2795	2759	2793	2864	2982	3101	3225	3206	3239
	Females	2418	2393	2487	2587	2698	2642	2635	2704	2756	2856	2908
	Total	5062	5093	5282	5346	5491	5506	5617	5805	5981	6062	6147
10-12 y	**Males**	2566	2585	2715	2763	2847	2800	2820	2904	2837	2865	2877
	Females	2407	2414	2427	2467	2530	2530	2695	2749	2672	2663	2646
	Total	4973	4999	5142	5230	5377	5330	5515	5653	5509	5528	5523
13-14 y	**Males**	1018	1012	1021	1177	1191	1099	1163	1117	1203	1168	1234
	Females	932	908	945	972	1001	959	935	1019	1080	1099	1192
	Total	1950	1920	1966	2149	2192	2058	2098	2136	2283	2267	2426
Over 15 y	**Males**	139	132	137	145	182	167	167	179	203	191	188
	Females	105	99	137	171	187	176	177	181	166	176	153
	Total	244	231	274	316	369	343	344	360	369	367	341
All ages	**Males**	7800	7804	8112	8310	8568	8545	8677	9101	9218	9265	9357
	Females	7093	7091	7396	7521	7687	7667	7793	8153	8268	8383	8544
	Total	14893	14895	15508	15831	16255	16212	16470	17254	17486	17648	17901
All ages 5 y & over	**Males 5 y & over**	7800	7804	8112	8310	8568	8545	8677	9101	9218	9265	9357
	Females 5 y & over	7093	7091	7396	7521	7687	7667	7793	8153	8268	8383	8544
	Total 5 y & over	14893	14895	15508	15831	16255	16212	16470	17254	17486	17648	17901
All 5-15 y	**Males 5-15 y**	7661	7672	7975	8165	8386	8378	8510	8922	9015	9074	9169
	Females 5-15 y	6988	6992	7259	7350	7500	7491	7616	7972	8102	8207	8391
	Total 5-15 y	14649	14664	15234	15515	15886	15869	16126	16894	17117	17281	17560

Appendix 5.2 – Wellington Education District gender age ratios for 5-6 y age groups and 13-14 y age group to 7-9 y age group (source E1 reports)

Males	***1879***	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***
5-6 y/7-9 y	0.5995	0.6691	0.6838	0.5698	0.6623	0.5431	0.6244	0.5582	0.4552	0.4629	0.5153	0.5133	0.5069	0.5295	0.4930	0.5231	0.5080	0.5167
13-14 y/7-9 y	0.2071	0.2562	0.2554	0.2442	0.2477	0.2196	0.2057	0.2260	0.2460	0.2238	0.2799	0.2850	0.3081	0.3034	0.3249	0.3345	0.3325	0.3574
Females	***1879***	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***
5-6 y/7-9 y	0.6748	0.7209	0.7436	0.4935	0.6129	0.6039	0.5485	0.5325	0.4448	0.5248	0.4995	0.5000	0.5116	0.5330	0.5046	0.4955	0.4621	0.4704
13-14 y/7-9 y	0.2361	0.2888	0.2819	0.2563	0.2556	0.2754	0.2065	0.2223	0.2518	0.2538	0.2748	0.2739	0.2772	0.3032	0.3229	0.3254	0.3190	0.2944

Males	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.4908	0.5109	0.5170	0.5182	0.5420	0.5093	0.5166	0.5314	0.5567	0.5639	0.5181	0.5805	0.5426	0.5724	0.5616
13-14 y/7-9 y	0.3841	0.3406	0.3627	0.3581	0.3850	0.3748	0.3653	0.4266	0.4264	0.3837	0.3900	0.3602	0.3730	0.3643	0.3810
Females	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.5179	0.4969	0.4844	0.4934	0.5091	0.5336	0.5629	0.5118	0.4711	0.5254	0.5127	0.5547	0.5784	0.5564	0.5657
13-14 y/7-9 y	0.3727	0.3408	0.3671	0.3600	0.3854	0.3794	0.3800	0.3757	0.3710	0.3630	0.3548	0.3768	0.3919	0.3848	0.4099

Appendix 5.3 – Wellington Education District raw Standards level data and pass/fail rates (source E1 reports)

	1879	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
Total no.	5268	5764	6147	6271	6840	7395	8039	8844	9611	9837	10419	10653	11158	11840
Total males	2858	3078	3283	3319	3592	3829	4210	4585	4966	5053	5280	5457	5830	6085
Total females	2410	2686	2864	2952	3248	3566	3829	4259	4645	4784	5139	5196	5328	5755
Total below Std 1	1425	1418	1526	1763	1978	2026	2220	2413	2830	2289	2675	2638	2632	3012
Males below Std 1	775	753	795	948	1047	1069	1169	1293	1431	1113	1399	1368	1404	1571
Females below Std 1	650	665	731	815	931	957	1051	1120	1399	1176	1276	1270	1228	1441
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	1000	1196	1059	966	1063	1219	1307	1566	1635	1679	1177	1287	1399	1366
Males Std 1	550	644	572	501	538	592	639	751	790	849	584	630	687	698
Females Std 1	450	552	487	465	525	627	668	815	845	830	593	657	712	668
Std 1 pass rate of presented	n/a	0.790	0.831	0.930	0.890	0.971	0.800	0.963	0.979	0.986	0.980	0.988	0.987	0.998
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	n/a	0.210	0.169	0.070	0.110	0.029	0.200	0.037	0.021	0.014	0.020	0.012	0.013	0.002
Std 1 fail rate of total Std 1														
Total Std 2	971	867	868	803	1023	1286	1229	1399	1454	1608	1698	1589	1542	1621
Males Std 2	505	460	475	436	519	661	618	698	746	870	783	818	769	781
Females Std 2	466	407	393	367	504	625	611	701	708	738	915	771	773	840
Std 2 pass rate of presented		0.880	0.817	0.930	0.830	0.893	0.730	0.868	0.903	0.847	0.918	0.924	0.942	0.968
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented		0.120	0.183	0.070	0.170	0.107	0.270	0.132	0.097	0.153	0.082	0.076	0.058	0.032
Std 2 fail rate of total Std 2														
Total Std 3	924	1020	1030	1003	1104	1105	1328	1350	1384	1502	1712	1680	1689	1708
Males Std 3	509	511	538	518	583	557	728	689	725	755	923	830	870	888
Females Std 3	415	509	492	485	521	548	600	661	659	747	789	850	819	820
Std 3 pass rate of presented		0.780	0.580	0.740	0.600	0.744	0.575	0.743	0.853	0.826	0.822	0.905	0.896	0.920
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented		0.220	0.420	0.260	0.400	0.256	0.425	0.257	0.147	0.174	0.178	0.095	0.104	0.080
Std 3 fail rate of total Std 3														

Total Std 4	748	799	786	805	775	714	817	1028	1110	1229	1276	1464	1558	1549
Males Std 4	412	434	399	406	419	385	455	546	613	646	623	769	810	782
Females Std 4	336	365	387	399	356	329	392	482	497	583	653	695	748	767
Std 4 pass rate of presented		0.680	0.690	0.730	0.660	0.912	0.620	0.826	0.841	0.804	0.852	0.943	0.920	0.923
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented		0.320	0.310	0.270	0.340	0.088	0.380	0.174	0.159	0.196	0.148	0.057	0.080	0.077
Std 4 fail rate of total Std 4														
Total Std 5	297	522	511	551	518	578	573	568	743	844	914	994	1194	1317
Males Std 5	132	281	301	291	273	309	326	305	401	457	469	498	666	672
Females Std 5	165	241	210	260	245	269	247	263	342	387	445	496	528	645
Std 5 pass rate of presented		0.550	0.760	0.670	0.630	0.845	0.668	0.764	0.782	0.845	0.926	0.944	0.918	0.915
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented		0.450	0.240	0.330	0.370	0.155	0.332	0.236	0.218	0.155	0.074	0.056	0.082	0.085
Std 5 fail rate of total Std 5														
Total Std 6	202	202	296	283	242	339	389	382	426	527	659	657	723	825
Males Std 6	131	109	161	154	127	179	199	229	247	292	341	369	385	455
Females Std 6	71	93	135	129	115	160	190	153	179	235	318	288	338	370
Std 6 pass rate of presented		0.540	0.760	0.650	0.860	0.800	0.664	0.560	0.780	0.697	0.818	0.856	0.883	0.919
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented		0.460	0.240	0.350	0.140	0.200	0.336	0.440	0.220	0.303	0.182	0.144	0.117	0.081
Std 6 fail rate of total Std 6														
Total above Std 6	66	58	71	97	137	128	146	138	29	159	308	344	421	442
Males above Std 6	42	36	42	65	86	77	76	74	13	71	158	175	239	238
Females above Std 6	24	22	29	32	51	51	70	64	16	88	150	169	182	204

Appendix 5.3 continued (2)

	1893	***1894***	***1895***	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***
Total no.	12254	12572	13048	13541	14031	14432	14768	14658	14893	14895	15508	15831	16255	16212
Total males	6306	6476	6777	7033	7256	7523	7670	7655	7800	7804	8112	8310	8568	8545
Total females	5948	6096	6271	6508	6775	6909	7098	7003	7093	7091	7396	7521	7687	7667
Total below Std 1	3098	3293	3373	3484	3502	3768	3531	3834	3905	3942	4173	4487	4471	4630
Males below Std 1	1620	1739	1798	1856	1850	2018	1916	2075	2130	2122	2161	2363	2410	2520
Females below Std 1	1478	1554	1575	1628	1652	1750	1615	1759	1775	1820	2012	2124	2061	2110
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	1598	1366	1607	1644	1597	1611	1738	1473	1580	1517	1618	1771	1841	1741
Males Std 1	778	677	819	826	791	861	884	799	848	807	873	918	972	932
Females Std 1	820	689	788	818	806	750	854	674	732	710	745	853	869	809
Std 1 pass rate of presented	0.990	0.964	0.959	0.964	0.974	0.975	0.972	0.942	0.955	0.953	0.957			
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	0.010	0.036	0.041	0.036	0.026	0.025	0.028	0.058	0.045	0.047	0.043			
Std 1 fail rate of total Std 1														
Total Std 2	1537	1657	1661	1772	1801	1835	1748	1763	1836	1890	1855	1922	1972	2003
Males Std 2	769	795	816	921	913	918	954	868	949	985	999	1045	1012	1027
Females Std 2	768	862	845	851	888	917	794	895	887	905	856	877	960	976
Std 2 pass rate of presented	0.936	0.895	0.910	0.921	0.928	0.944	0.919	0.891	0.905	0.919	0.907			
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented	0.064	0.105	0.090	0.079	0.072	0.056	0.081	0.109	0.095	0.081	0.093			
Std 2 fail rate of total Std 2														
Total Std 3	1722	1826	1886	1908	2048	2012	2072	1984	1881	1940	2045	2012	2058	2049
Males Std 3	865	961	945	978	1076	1038	1050	1072	939	1021	1089	1078	1106	1059
Females Std 3	857	865	941	930	972	974	1022	912	942	919	956	934	952	990
Std 3 pass rate of presented	0.876	0.760	0.819	0.826	0.835	0.859	0.805	0.810	0.861	0.876	0.852			
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented	0.124	0.240	0.181	0.174	0.165	0.141	0.195	0.190	0.139	0.124	0.148			
Std 3 fail rate of total Std 3														

Total Std 4	1612	1690	1762	1851	1863	1924	1890	1948	1905	1834	1935	1983	1954	1936
Males Std 4	837	850	936	897	958	983	964	986	1003	919	1009	1019	1035	1028
Females Std 4	775	840	826	954	905	941	926	962	902	915	926	964	919	908
Std 4 pass rate of presented	0.837	0.718	0.765	0.799	0.814	0.869	0.840	0.812	0.854	0.876	0.845			
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented	0.163	0.282	0.235	0.201	0.186	0.131	0.160	0.188	0.146	0.124	0.155			
Std 4 fail rate of total Std 4														
Total Std 5	1254	1254	1360	1409	1525	1578	1781	1652	1708	1649	1652	1658	1732	1695
Males Std 5	664	656	700	730	747	811	924	834	869	867	841	870	886	912
Females Std 5	590	598	660	679	778	767	857	818	839	782	811	788	846	783
Std 5 pass rate of presented	0.892	0.707	0.744	0.744	0.808	0.808	0.8	0.803	0.824	0.856	0.816			
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented	0.108	0.293	0.256	0.256	0.192	0.192	0.2	0.197	0.176	0.144	0.184			
Std 5 fail rate of total Std 5														
Total Std 6	943	923	873	962	1066	1042	1156	1159	1203	1270	1241	1207	1490	1465
Males Std 6	486	506	477	543	554	524	577	617	623	653	657	611	778	731
Females Std 6	457	417	396	419	512	518	579	542	580	617	584	596	712	734
Std 6 pass rate of presented	0.859	0.612	0.760	0.704	0.833	0.869	0.810	0.779	0.822	0.826	0.817			
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented	0.141	0.388	0.240	0.296	0.167	0.131	0.190	0.221	0.178	0.174	0.183			
Std 6 fail rate of total Std 6														
Total above Std 6	490	563	526	511	629	662	852	845	875	853	989	791	737	693
Males above Std 6	287	292	286	282	367	370	401	404	439	430	483	406	369	336
Females above Std 6	203	271	240	229	262	292	451	441	436	423	506	385	368	357

Appendix 5.3 continued (3)

	1907	***1908***	***1909***	***1910***	***1911***
Total no.	16470	17254	17486	17648	17901
Total males	8677	9101	9218	9265	9357
Total females	7793	8153	8268	8383	8544
Total below Std 1	5387	5757	5832	6009	6278
Males below Std 1	2939	3127	3142	3218	3341
Females below Std 1	2448	2630	2690	2791	2937
Below Std 1 pass rate					
Below Std 1 fail rate					
Total Std 1	1840	1958	1974	2037	1947
Males Std 1	989	1072	1051	1033	1018
Females Std 1	851	886	923	1004	929
Std 1 pass rate of presented					
Std 1 pass rate of total Std 1					
Std 1 fail rate of presented					
Std 1 fail rate of total Std 1					
Total Std 2	1987	1945	2097	2117	2191
Males Std 2	1036	1021	1119	1153	1167
Females Std 2	951	924	978	964	1024
Std 2 pass rate of presented					
Std 2 pass rate of total Std 2					
Std 2 fail rate of presented					
Std 2 fail rate of total Std 2					
Total Std 3	2092	2083	2022	2050	2024
Males Std 3	1070	1075	1051	1086	1035
Females Std 3	1022	1008	971	964	989
Std 3 pass rate of presented					
Std 3 pass rate of total Std 3					
Std 3 fail rate of presented					
Std 3 fail rate of total Std 3					

Total Std 4	1876	2067	2059	1907	1965
Males Std 4	1000	1077	1089	999	1024
Females Std 4	876	990	970	908	941
Std 4 pass rate of presented					
Std 4 pass rate of total Std 4					
Std 4 fail rate of presented					
Std 4 fail rate of total Std 4					
Total Std 5	1616	1660	1736	1829	1746
Males Std 5	863	879	878	939	917
Females Std 5	753	781	858	890	829
Std 5 pass rate of presented					
Std 5 pass rate of total Std 5					
Std 5 fail rate of presented					
Std 5 fail rate of total Std 5					
Total Std 6	1085	1279	1378	1339	1408
Males Std 6	515	631	716	683	714
Females Std 6	570	648	662	656	694
Std 6 pass rate of presented					
Std 6 pass rate of total Std 6					
Std 6 fail rate of presented					
Std 6 fail rate of total Std 6					
Total above Std 6	587	505	388	360	342
Males above Std 6	265	219	172	154	141
Females above Std 6	322	286	216	206	201

Appendix 5.4 – Wellington Education District observed and calculated expected pupil numbers for Standards 4, 5, and 6 (ob = observed; ex = expected; S3 to S4 = {S4 ob – previous year S3 ob}/ previous year S3 ob, as a %), this is the change in pupil numbers in successive years for successive Standards levels expressed as a percentage of the lower level; similarly for S4 to S5 and S5 to S6)

	1880	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
S3 ob	1020	1030	1003	1104	1105	1328	1350	1384	1502	1712	1680	1689	1708
S4 ob	799	786	805	775	714	817	1028	1110	1229	1276	1464	1558	1549
S3 pass rate	0.78	0.58	0.74	0.6	0.744	0.575	0.743	0.853	0.826	0.822	0.905	0.896	0.92
S4 fail rate	0.32	0.31	0.27	0.34	0.088	0.38	0.174	0.159	0.196	0.148	0.057	0.08	0.077
S4 ex		1051.28	841.06	959.57	925.90	884.95	1074.06	1181.92	1357.04	1481.54	1596.11	1603.85	1637.98
S3 to S4		-22.9412	-21.8447	-22.7318	-35.3261	-26.0633	-22.5904	-17.7778	-11.1994	-15.0466	-14.4860	-7.2619	-8.2889
S4 Ob/Ex		0.7477	0.9571	0.8077	0.7711	0.9232	0.9571	0.9391	0.9056	0.8613	0.9172	0.9714	0.9457
S5 ob	522	511	551	518	578	573	568	743	844	914	994	1194	1317
S4 pass rate	0.68	0.69	0.73	0.66	0.912	0.62	0.826	0.841	0.804	0.852	0.943	0.92	0.923
S5 fail rate	0.45	0.24	0.33	0.37	0.155	0.332	0.236	0.218	0.155	0.074	0.056	0.082	0.085
S5 ex		778.22	664.98	769.48	703.16	740.76	696.78	983.18	1095.48	1118.94	1154.79	1436.22	1531.27
S4 to S5		-36.0451	-29.8982	-35.6522	-25.4194	-19.7479	-30.4774	-27.7237	-23.9640	-25.6306	-22.1003	-18.4426	-15.4685
S5 Ob/Ex		0.6566	0.8286	0.6732	0.8220	0.7735	0.8152	0.7557	0.7704	0.8168	0.8608	0.8314	0.8601
S6 ob	202	296	283	242	339	389	382	426	527	659	657	723	825
S5 pass rate	0.55	0.76	0.67	0.63	0.845	0.668	0.764	0.782	0.845	0.926	0.944	0.918	0.915
S6 fail rate	0.46	0.24	0.35	0.14	0.2	0.336	0.44	0.22	0.303	0.182	0.144	0.117	0.081
S6 ex		380.02	459.40	468.22	360.22	556.21	513.47	602.03	674.75	872.86	966.30	1032.94	1180.68
S5 to S6		-43.2950	-44.6184	-56.0799	-34.5560	-32.6990	-33.3333	-25.0000	-29.0713	-21.9194	-28.1182	-27.2636	-30.9045
S6 Ob/Ex		0.7789	0.6160	0.5169	0.9411	0.6994	0.7440	0.7076	0.7810	0.7550	0.6799	0.6999	0.6987

Appendix 5.4 continued

	1893	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*	*1901*	*1902*	*1903*	*1904*
S3 ob	1722	1826	1886	1908	2048	2012	2072	1984	1881	1940	2045	2012
S4 ob	1612	1690	1762	1851	1863	1924	1890	1948	1905	1834	1935	1983
S3 pass rate	0.876	0.76	0.819	0.826	0.835	0.859	0.805	0.81	0.861	0.876	0.852	
S4 fail rate	0.163	0.282	0.235	0.201	0.186	0.131	0.16	0.188	0.146	0.124	0.155	
S4 ex	1690.63	1771.23	1864.34	1958.70	1948.06	2056.60	1980.35	1970.36	1973.26	1897.67	1926.86	2042.27
S3 to S4	-5.6206	-1.8583	-3.5049	-1.8558	-2.3585	-6.0547	-6.0636	-5.9846	-3.9819	-2.4987	-0.2577	-3.0318
S4 Ob/Ex	0.9535	0.9541	0.9451	0.9450	0.9563	0.9355	0.9544	0.9887	0.9654	0.9664	1.0042	0.9710
S5 ob	1254	1254	1360	1409	1525	1578	1781	1652	1708	1649	1652	1658
S4 pass rate	0.837	0.718	0.765	0.799	0.814	0.869	0.84	0.812	0.854	0.876	0.845	
S5 fail rate	0.108	0.293	0.256	0.256	0.192	0.192	0.2	0.197	0.176	0.144	0.184	
S5 ex	1541.67	1484.68	1580.84	1696.09	1839.65	1809.28	1974.93	1943.80	1907.22	1927.48	1844.04	1939.04
S4 to S5	-19.0445	-22.2084	-19.5266	-20.0341	-17.6121	-15.2979	-7.4324	-12.5926	-12.3203	-13.4383	-9.9237	-14.3152
S5 Ob/Ex	0.8134	0.8446	0.8603	0.8307	0.8290	0.8722	0.9018	0.8499	0.8955	0.8555	0.8959	0.8551
S6 ob	943	923	873	962	1066	1042	1156	1159	1203	1270	1241	1207
S5 pass rate	0.892	0.707	0.744	0.744	0.808	0.808	0.8	0.803	0.824	0.856	0.816	
S6 fail rate	0.141	0.388	0.24	0.296	0.167	0.131	0.19	0.221	0.178	0.174	0.183	
S6 ex	1271.88	1251.53	1244.70	1221.36	1333.05	1410.22	1411.53	1644.44	1582.70	1621.53	1632.52	1575.14
S5 to S6	-28.3979	-26.3955	-30.3828	-29.2647	-24.3435	-31.6721	-26.7427	-34.9242	-27.1792	-25.6440	-24.7423	-26.9370
S6 Ob/Ex	0.7414	0.7375	0.7014	0.7876	0.7997	0.7389	0.8190	0.7048	0.7601	0.7832	0.7602	0.7663

Appendix 6.1 – Marlborough Education District raw age data and gender ratios for 7-9 y age groups (source E1 reports)

		1879	*1880*	*1881*	*1882*	*1883*	*1884*	*1885*	*1886*	*1887*	*1888*	*1889*
Under 5 y	**Males**	27	20									
	Females	31	12									
	Total	58	32									
5-6 y	**Males**	99	139	154	174	190	177	178	178	144	155	194
	Females	120	134	145	180	179	147	150	145	157	150	165
	Total	219	273	299	354	369	324	328	323	301	305	359
7-9 y	**Males**	217	236	251	234	276	309	319	317	357	359	344
	Females	177	211	216	247	236	270	288	308	329	319	302
	Total	394	447	467	481	512	579	607	625	686	678	646
10-12 y	**Males**	151	168	212	224	203	229	247	284	275	275	304
	Females	151	166	192	197	197	204	204	243	267	286	301
	Total	302	334	404	421	400	433	451	527	542	561	605
13-14 y	**Males**	57	53	76	66	78	56	92	80	106	97	115
	Females	33	51	58	65	94	76	83	67	71	88	96
	Total	90	104	134	131	172	132	175	147	177	185	211
Over 15 y	**Males**	9	18	13	13	15	7	12	10	21	20	17
	Females	7	4	4	14	18	18	13	18	7	11	16
	Total	16	22	17	27	33	25	25	28	28	31	33
All ages	**Males**	560	634	706	711	762	778	818	869	903	906	974
	Females	519	578	615	703	724	715	738	781	831	854	880
	Total	1079	1212	1321	1414	1486	1493	1586	1650	1734	1760	1854
All ages 5 y & over	**Males 5 y & over**	533	614	706	711	762	778	818	869	903	906	974
	Females 5 y 7 over	488	566	615	703	724	715	738	781	831	854	880
	Total 5 y & over	1021	1180	1321	1414	1486	1493	1586	1650	1734	1760	1854
All 5-15 y	**Males 5-15 y**	524	596	693	698	747	771	806	859	882	886	957
	Females 5-15 y	512	562	611	689	706	697	725	763	824	843	864
	Total 5-15 y	1036	1158	1304	1387	1453	1468	1531	1622	1706	1729	1821

Appendix 6.1 continued (2)

		1890	*1891*	*1892*	*1893*	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	194	175	167	152	167	191	165	195	185	157	195
	Females	153	144	171	145	169	173	152	150	148	155	165
	Total	347	319	338	297	336	364	317	345	333	312	360
7-9 y	**Males**	334	389	393	409	378	390	361	360	371	360	368
	Females	313	337	328	349	362	370	359	332	338	323	335
	Total	647	726	721	758	740	760	720	692	709	683	703
10-12 y	**Males**	348	362	339	329	381	396	402	371	351	361	374
	Females	318	344	336	301	324	352	363	350	335	341	320
	Total	666	706	675	630	705	748	765	721	686	702	694
13-14 y	**Males**	127	133	162	148	151	131	138	167	152	156	155
	Females	110	111	124	124	146	138	156	163	163	157	161
	Total	237	244	286	272	297	269	294	330	315	313	316
Over 15 y	**Males**	32	16	19	26	33	36	34	38	28	32	27
	Females	18	29	30	35	31	52	53	54	50	58	46
	Total	50	45	49	61	64	88	87	92	78	90	73
All ages	**Males**	1035	1075	1080	1064	1110	1144	1100	1131	1087	1066	1119
	Females	912	965	989	954	1032	1085	1083	1049	1034	1034	1027
	Total	1947	2040	2069	2018	2142	2229	2183	2180	2121	2100	2146
All ages 5 y & over	**Males 5 y & over**	1035	1075	1080	1064	1110	1144	1100	1131	1087	1066	1119
	Females 5 y & over	912	965	989	954	1032	1085	1083	1049	1034	1034	1027
	Total 5 y & over	1947	2040	2069	2018	2142	2229	2183	2180	2121	2100	2146
All 5-15 y	**Males 5-15 y**	1003	1059	1061	1038	1077	1108	1066	1093	1059	1034	1092
	Females 5-15 y	894	936	959	919	1001	1033	1030	995	984	976	981
	Total 5-15 y	1897	1995	2020	1957	2078	2141	2096	2088	2043	2010	2073

Appendix 6.1 continued (3)

		1901	*1902*	*1903*	*1904*	*1905*	*1906*	*1907*	*1908*	*1909*	*1910*	*1911*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	185	161	165	168	161	172	158	177	209	206	229
	Females	181	175	161	158	153	162	161	166	171	184	187
	Total	366	336	326	326	314	334	319	343	380	390	416
7-<9 y	**Males**	349	357	349	340	317	361	391	380	409	400	423
	Females	328	304	314	329	326	335	350	370	377	364	368
	Total	677	661	663	669	643	696	741	750	786	764	791
10-12 y	**Males**	365	354	343	343	364	375	394	371	384	384	393
	Females	329	312	325	311	288	324	345	369	352	345	353
	Total	694	666	668	654	652	699	739	740	736	729	746
13-14 y	**Males**	149	150	131	154	129	127	146	165	158	163	176
	Females	136	145	118	104	112	118	113	122	147	150	153
	Total	285	295	249	258	241	245	259	287	305	313	329
Over 15 y	**Males**	23	12	26	13	25	16	16	22	36	25	34
	Females	44	37	30	23	21	25	21	21	27	23	29
	Total	67	49	56	36	46	41	37	43	63	48	63
All ages	**Males**	1071	1034	1014	1018	996	1051	1105	1115	1196	1178	1255
	Females	1018	973	948	925	900	964	990	1048	1074	1066	1090
	Total	2089	2007	1962	1943	1896	2015	2095	2163	2270	2244	2345
All ages 5 y & over	**Males 5 y & over**	1071	1034	1014	1018	996	1051	1105	1115	1196	1178	1255
	Females 5 y & over	1018	973	948	925	900	964	990	1048	1074	1066	1090
	Total 5 y & over	2089	2007	1962	1943	1896	2015	2095	2163	2270	2244	2345
All 5-15 y	**Males 5-15 y**	1048	1022	988	1005	971	1035	1089	1093	1160	1153	1221
	Females 5-15 y	974	936	918	902	879	939	969	1027	1047	1043	1061
	Total 5-15 y	2022	1958	1906	1907	1850	1974	2058	2120	2207	2196	2282

Appendix 6.2 – Marlborough Education District gender age ratios for 5-6 y age groups and 13-14 y age group to 7-9 y age group (source E1 reports)

Males	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***
5-6 y/7-9 y	0.5890	0.6135	0.7436	0.6884	0.5728	0.5580	0.5615	0.4034	0.4318	0.5640	0.5808	0.4499	0.4249	0.3716	0.4418	0.4897	0.4571
13-14 y/7-9 y	0.2512	0.3519	0.2672	0.3305	0.2074	0.3194	0.2597	0.3222	0.3041	0.3808	0.4058	0.3947	0.4939	0.4241	0.4171	0.3541	0.3844
Females	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***
5-6 y/7-9 y	0.6351	0.6713	0.7287	0.7585	0.5444	0.5208	0.4708	0.4772	0.4702	0.5464	0.4888	0.4273	0.5213	0.4155	0.4669	0.4676	0.4234
13-14 y/7-9 y	0.2417	0.2685	0.2632	0.3983	0.2815	0.2882	0.2175	0.2158	0.2759	0.3179	0.3514	0.3294	0.3780	0.3553	0.4033	0.3730	0.4345

Males	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.5417	0.4987	0.4361	0.5299	0.5301	0.4510	0.4728	0.4941	0.5079	0.4765	0.4041	0.4658	0.5110	0.5150	0.5414
13-14 y/7-9 y	0.5030	0.4497	0.4830	0.4627	0.4543	0.4934	0.4172	0.4681	0.3957	0.3791	0.4171	0.4459	0.4191	0.4478	0.4783
Females	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.4518	0.4379	0.4799	0.4925	0.5518	0.5757	0.5127	0.4802	0.4693	0.4836	0.4600	0.4486	0.4536	0.5055	0.5082
13-14 y/7-9 y	0.4910	0.4822	0.4861	0.4806	0.4146	0.4770	0.3758	0.3161	0.3436	0.3522	0.3229	0.3297	0.3899	0.4121	0.4158

Appendix 6.3 – Marlborough Education District raw Standards level data and pass/fail rates (source E1 reports)

	1879	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
Total no.	1021	1180	1321	1414	1486	1493	1586	1650	1734	1760	1854	1947	2040	2069
Total males	533	614	706	711	762	778	818	869	903	906	974	1035	1075	1080
Total females	488	566	615	703	724	715	738	781	831	854	880	912	965	989
Total below Std 1	242	174	281	336	432	0	340	360	416	518	525	659	594	571
Males below Std 1	113	91	143	162	214	0	188	191	224	292	288	365	335	294
Females below Std 1	129	83	138	174	218	0	152	169	192	226	237	294	259	277
Below Std 1 pass rate	n/a													
Below Std 1 fail rate	n/a													
Total Std 1	236	310	245	289	329	728	408	363	337	267	313	252	331	306
Males Std 1	133	168	118	147	170	379	216	203	173	121	177	131	171	172
Females Std 1	103	142	127	142	159	349	192	160	164	146	136	121	160	134
Std 1 pass rate of presented	n/a	0.734	0.853	0.861	0.857	0.966	0.930	0.850	0.916	0.934	0.815	n/a	0.876	0.851
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented		0.266	0.147	0.139	0.143	0.034	0.070	0.150	0.084	0.066	0.185	n/a	0.124	0.149
Std 1 fail rate of total Std 1														
Total Std 2	234	201	201	204	224	247	280	245	275	249	262	242	285	300
Males Std 2	115	99	116	103	118	130	146	129	140	121	129	129	155	164
Females Std 2	119	102	85	101	106	117	134	116	135	128	133	113	130	136
Std 2 pass rate of presented		0.825	0.835	0.768	0.918	0.899	0.957	0.754	0.855	0.835	0.817	n/a	0.818	0.922
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented		0.175	0.165	0.232	0.082	0.101	0.043	0.246	0.145	0.165	0.183	n/a	0.182	0.078
Std 2 fail rate of total Std 2														
Total Std 3	204	243	225	190	176	213	221	265	230	257	261	280	300	321
Males Std 3	102	120	121	101	95	111	118	130	115	131	133	138	154	163
Females Std 3	102	123	104	89	81	102	103	135	115	126	128	142	146	158
Std 3 pass rate of presented		0.857	0.814	0.839	0.900	0.839	0.930	0.839	0.771	0.761	0.802	n/a	0.734	0.683
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented		0.143	0.186	0.161	0.100	0.161	0.070	0.161	0.229	0.239	0.198	n/a	0.266	0.317
Std 3 fail rate of total Std 3														

Total Std 4	88	170	171	195	169	124	171	203	236	202	198	231	236	258
Males Std 4	54	91	87	86	82	63	75	109	119	107	99	125	115	124
Females Std 4	34	79	84	109	87	61	96	94	117	95	99	106	121	134
Std 4 pass rate of presented		0.615	0.705	0.750	0.905	0.663	0.850	0.686	0.848	0.764	0.743	n/a	0.746	0.720
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented		0.385	0.295	0.250	0.095	0.337	0.150	0.314	0.152	0.236	0.257	n/a	0.254	0.280
Std 4 fail rate of total Std 4														
Total Std 5	43	61	120	124	104	112	78	139	127	162	171	150	167	159
Males Std 5	28	36	75	68	54	55	49	64	65	77	83	73	79	76
Females Std 5	15	25	45	56	50	57	29	75	62	85	88	77	88	83
Std 5 pass rate of presented		0.778	0.750	0.620	0.833	0.814	0.920	0.901	0.750	0.700	0.798	n/a	0.657	0.687
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented		0.222	0.250	0.380	0.167	0.186	0.080	0.099	0.250	0.300	0.202	n/a	0.343	0.313
Std 5 fail rate of total Std 5														
Total Std 6	22	30	53	52	42	56	66	51	90	76	88	95	91	102
Males Std 6	8	16	32	34	23	34	39	27	46	36	41	51	53	53
Females Std 6	14	14	21	18	19	22	27	24	44	40	47	44	38	49
Std 6 pass rate of presented		0.955	0.700	0.800	0.921	0.750	0.950	0.842	0.582	0.863	0.742	n/a	0.797	0.937
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented		0.045	0.300	0.200	0.079	0.250	0.050	0.158	0.418	0.137	0.258	n/a	0.203	0.063
Std 6 fail rate of total Std 6														
Total above Std 6	10	23	25	24	10	13	22	24	23	29	36	38	36	52
Males above Std 6	7	13	14	10	6	6	17	16	21	21	24	23	13	34
Females above Std 6	3	10	11	14	4	7	5	8	2	8	12	15	23	18

Appendix 6.3 continued (2)

	1893	***1894***	***1895***	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***
Total no.	2018	2142	2229	2183	2180	2121	2100	2146	2089	2007	1962	1943	1896	2015
Total males	1064	1110	1144	1100	1131	1087	1066	1119	1071	1034	1014	1018	996	1051
Total females	954	1032	1085	1083	1049	1034	1034	1027	1018	973	948	925	900	964
Total below Std 1	515	530	452	416	544	446	481	558	463	482	469	425	404	494
Males below Std 1	275	272	247	218	304	245	245	305	248	252	243	222	213	257
Females below Std 1	240	258	205	198	240	201	236	253	215	230	226	203	191	237
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	300	295	297	248	220	254	248	228	251	243	216	236	219	200
Males Std 1	152	158	154	136	116	139	132	116	126	135	117	118	109	107
Females Std 1	148	137	143	112	104	115	116	112	125	108	99	118	110	93
Std 1 pass rate of presented	0.913	0.925	0.961	0.959	0.963	0.978	0.989	0.934	0.970	0.931	0.969			
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	0.087	0.075	0.039	0.041	0.037	0.022	0.011	0.066	0.030	0.069	0.031			
Std 1 fail rate of total Std 1														
Total Std 2	290	320	321	280	244	248	269	264	236	230	278	249	216	233
Males Std 2	157	155	162	135	126	128	142	139	112	120	153	137	109	121
Females Std 2	133	165	159	145	118	120	127	125	120	110	125	112	107	112
Std 2 pass rate of presented	0.917	0.917	0.926	0.955	0.949	0.965	0.983	0.929	0.957	0.936	0.962			
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented	0.083	0.083	0.074	0.045	0.051	0.035	0.017	0.071	0.043	0.064	0.038			
Std 2 fail rate of total Std 2														
Total Std 3	315	321	321	350	346	273	269	290	266	262	245	255	248	256
Males Std 3	165	183	169	174	179	142	144	164	143	122	120	148	142	134
Females Std 3	150	138	152	176	167	131	125	126	123	140	125	107	106	122
Std 3 pass rate of presented	0.837	0.825	0.852	0.700	0.792	0.850	0.780	0.900	0.920	0.919	0.916			
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented	0.163	0.175	0.148	0.300	0.208	0.150	0.220	0.100	0.080	0.081	0.084			
Std 3 fail rate of total Std 3														

Total Std 4	268	276	335	316	323	317	277	279	267	253	241	271	277	266
Males Std 4	145	128	169	160	159	161	138	144	150	140	114	137	159	162
Females Std 4	123	148	166	156	164	156	139	135	117	113	127	134	118	104
Std 4 pass rate of presented	0.837	0.844	0.798	0.758	0.747	0.797	0.711	0.890	0.913	0.926	0.918			
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented	0.163	0.156	0.202	0.242	0.253	0.203	0.289	0.110	0.087	0.074	0.082			
Std 4 fail rate of total Std 4														
Total Std 5	187	203	225	296	260	275	257	223	255	261	237	213	240	266
Males Std 5	93	112	113	146	128	132	133	108	131	133	121	106	122	136
Females Std 5	94	91	112	150	132	143	124	115	124	128	116	107	118	130
Std 5 pass rate of presented	0.852	0.797	0.823	0.598	0.757	0.790	0.752	0.897	0.941	0.838	0.888			
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented	0.148	0.203	0.177	0.402	0.243	0.210	0.248	0.103	0.059	0.162	0.112			
Std 5 fail rate of total Std 5														
Total Std 6	90	130	150	140	148	187	182	188	207	179	200	196	193	203
Males Std 6	47	66	72	64	71	88	83	95	97	97	107	104	91	93
Females Std 6	43	64	78	76	77	99	99	93	110	82	93	92	102	110
Std 6 pass rate of presented	0.930	0.734	0.928	0.797	0.815	0.689	0.842	0.748	0.791	0.707	0.804			
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented	0.070	0.266	0.072	0.203	0.185	0.311	0.158	0.252	0.209	0.293	0.196			
Std 6 fail rate of total Std 6														
Total above Std 6	53	67	128	137	95	121	117	116	144	97	76	98	99	97
Males above Std 6	30	36	58	67	48	52	49	48	60	35	39	46	51	41
Females above Std 6	23	31	70	70	47	69	68	68	84	62	37	52	48	56

Appendix 6.3 continued (3)

	1907	***1908***	***1909***	***1910***	***1911***
Total no.	2095	2163	2270	2244	2345
Total males	1105	1115	1196	1178	1255
Total females	990	1048	1074	1066	1090
Total below Std 1	652	732	771	804	773
Males below Std 1	333	373	415	431	439
Females below Std 1	319	359	356	373	334
Below Std 1 pass rate					
Below Std 1 fail rate					
Total Std 1	243	250	293	263	312
Males Std 1	138	127	147	130	165
Females Std 1	105	123	146	133	147
Std 1 pass rate of presented					
Std 1 pass rate of total Std 1					
Std 1 fail rate of presented					
Std 1 fail rate of total Std 1					
Total Std 2	224	222	262	265	276
Males Std 2	117	122	134	143	135
Females Std 2	107	100	128	122	141
Std 2 pass rate of presented					
Std 2 pass rate of total Std 2					
Std 2 fail rate of presented					
Std 2 fail rate of total Std 2					
Total Std 3	265	273	244	284	319
Males Std 3	149	152	136	148	160
Females Std 3	116	121	108	136	159
Std 3 pass rate of presented					
Std 3 pass rate of total Std 3					
Std 3 fail rate of presented					
Std 3 fail rate of total Std 3					

Total Std 4	262	263	269	245	255
Males Std 4	135	134	143	135	136
Females Std 4	127	129	126	110	119
Std 4 pass rate of presented					
Std 4 pass rate of total Std 4					
Std 4 fail rate of presented					
Std 4 fail rate of total Std 4					
Total Std 5	231	251	227	206	217
Males Std 5	128	131	116	104	121
Females Std 5	103	120	111	102	96
Std 5 pass rate of presented					
Std 5 pass rate of total Std 5					
Std 5 fail rate of presented					
Std 5 fail rate of total Std 5					
Total Std 6	176	133	175	154	169
Males Std 6	86	60	93	78	85
Females Std 6	90	73	82	76	84
Std 6 pass rate of presented					
Std 6 pass rate of total Std 6					
Std 6 fail rate of presented					
Std 6 fail rate of total Std 6					
Total above Std 6	42	39	29	23	24
Males above Std 6	19	16	12	9	14
Females above Std 6	23	23	17	14	10

Appendix 6.4 – Marlborough Education District observed and calculated expected pupil numbers for Standards 4, 5, and 6 (ob = observed; ex = expected; S3 to S4 = {S4 ob – previous year S3 ob}/ previous year S3 ob, as a %), this is the change in pupil numbers in successive years for successive Standards levels expressed as a percentage of the lower level; similarly for S4 to S5 and S5 to S6)

	1880	*1881*	*1882*	*1883*	*1884*	*1885*	*1886*	*1887*	*1888*	*1889*	*1890*	*1891*	*1892*
S3 ob	243	225	190	176	213	221	265	230	257	261	280	300	321
S4 ob	170	171	195	169	124	171	203	236	202	198	231	236	258
S3 pass rate	0.857	0.814	0.839	0.9	0.839	0.93	0.839	0.771	0.761	0.802	n/a	0.734	0.683
S4 fail rate	0.385	0.295	0.25	0.095	0.337	0.15	0.314	0.152	0.236	0.257	n/a	0.254	0.28
S4 ex		273.70	233.60	208.16	174.46	220.50	231.18	286.08	213.20	243.25	260.21		280.14
S3 to S4		-29.6296	-13.3333	-11.0526	-29.5455	-19.7183	-8.1448	-10.9434	-12.1739	-22.9572	-11.4943	-15.7143	-14.0000
S4 Ob/Ex		0.6248	0.8348	0.8119	0.7108	0.7755	0.8781	0.8250	0.9475	0.8140	0.8878		0.9210
S5 ob	61	120	124	104	112	78	139	127	162	171	150	167	159
S4 pass rate	0.615	0.705	0.75	0.905	0.663	0.85	0.686	0.848	0.764	0.743	n/a	0.746	0.72
S5 fail rate	0.222	0.25	0.38	0.167	0.186	0.08	0.099	0.25	0.3	0.202	n/a	0.343	0.313
S5 ex		118.09	150.56	193.37	170.31	103.04	151.59	153.02	231.88	202.93	181.66		233.34
S4 to S5		-29.4118	-27.4854	-46.6667	-33.7278	-37.0968	-18.7135	-37.4384	-31.3559	-15.3465	-24.2424	-27.7056	-32.6271
S5 Ob/Ex		1.0162	0.8236	0.5378	0.6576	0.7570	0.9169	0.8300	0.6986	0.8427	0.8257		0.6814
S6 ob	30	53	52	42	56	66	51	90	76	88	95	91	102
S5 pass rate	0.778	0.75	0.62	0.833	0.814	0.92	0.901	0.75	0.7	0.798	n/a	0.657	0.687
S6 fail rate	0.045	0.3	0.2	0.079	0.25	0.05	0.158	0.418	0.137	0.258	n/a	0.203	0.063
S6 ex		48.81	105.90	87.28	89.95	105.17	75.06	133.30	132.87	123.81	159.16		128.19
S5 to S6		-13.1148	-56.6667	-66.1290	-46.1538	-41.0714	-34.6154	-35.2518	-40.1575	-45.6790	-44.4444	-39.3333	-38.9222
S6 Ob/Ex		1.0859	0.4910	0.4812	0.6226	0.6276	0.6795	0.6752	0.5720	0.7108	0.5969		0.7957

Appendix 6.4 continued

	1893	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*	*1901*	*1902*	*1903*	*1904*
S3 ob	315	321	321	350	346	273	269	290	266	262	245	255
S4 ob	268	276	335	316	323	317	277	279	267	253	241	271
S3 pass rate	0.837	0.825	0.852	0.7	0.792	0.85	0.78	0.9	0.92	0.919	0.916	
S4 fail rate	0.163	0.156	0.202	0.242	0.253	0.203	0.289	0.11	0.087	0.074	0.082	
S4 ex	291.48	307.34	307.88	341.16	321.47	355.75	296.40	289.87	291.69	267.95	259.50	244.18
S3 to S4	-16.5109	-12.3810	4.3614	-1.5576	-7.7143	-8.3815	1.4652	3.7175	-7.9310	-4.8872	-8.0153	10.6122
S4 Ob/Ex	0.9194	0.8980	1.0881	0.9262	1.0048	0.8911	0.9345	0.9625	0.9154	0.9442	0.9287	1.1098
S5 ob	187	203	225	296	260	275	257	223	255	261	237	213
S4 pass rate	0.837	0.844	0.798	0.758	0.747	0.797	0.711	0.89	0.913	0.926	0.918	
S5 fail rate	0.148	0.203	0.177	0.402	0.243	0.21	0.248	0.103	0.059	0.162	0.112	
S5 ex	235.53	251.99	274.15	307.16	358.52	304.46	310.40	260.68	271.28	258.82	276.56	247.78
S4 to S5	-27.5194	-24.2537	-18.4783	-11.6418	-17.7215	-14.8607	-18.9274	-19.4946	-8.6022	-2.2472	-6.3241	-11.6183
S5 Ob/Ex	0.7940	0.8056	0.8207	0.9637	0.7252	0.9032	0.8280	0.8554	0.9400	1.0084	0.8570	0.8596
S6 ob	90	130	150	140	148	187	182	188	207	179	200	196
S5 pass rate	0.852	0.797	0.823	0.598	0.757	0.79	0.752	0.897	0.941	0.838	0.888	
S6 fail rate	0.07	0.266	0.072	0.203	0.185	0.311	0.158	0.252	0.209	0.293	0.196	
S6 ex	115.66	165.62	196.37	195.98	205.43	224.20	275.41	222.02	247.41	283.22	271.17	249.66
S5 to S6	-43.3962	-30.4813	-26.1084	-37.7778	-50.0000	-28.0769	-33.8182	-26.8482	-7.1749	-29.8039	-23.3716	-17.2996
S6 Ob/Ex	0.7781	0.7849	0.7639	0.7144	0.7204	0.8341	0.6608	0.8468	0.8367	0.6320	0.7376	0.7851

Appendix 7.1 – Nelson Education District raw age data and gender ratios for 7-9 y age groups (source E1 reports)

		1879	*1880*	*1881*	*1882*	*1883*	*1884*	*1885*	*1886*	*1887*	*1888*	*1889*
Under 5 y	**Males**	26	31									
	Females	48	23									
	Total	74	54									
5-6 y	**Males**	416	405	481	480	540	560	585	559	519	529	531
	Females	429	417	407	476	543	545	523	563	537	505	552
	Total	845	822	888	956	1083	1105	1108	1122	1056	1034	1083
7-9 y	**Males**	678	710	703	715	788	825	855	914	969	1014	1057
	Females	636	674	697	701	781	801	821	828	932	932	976
	Total	1314	1384	1400	1416	1569	1626	1676	1742	1901	1946	2033
10-12 y	**Males**	592	641	688	689	678	781	750	785	845	911	933
	Females	511	577	641	606	623	690	734	752	799	877	889
	Total	1103	1218	1329	1295	1301	1471	1484	1537	1644	1788	1822
13-14 y	**Males**	161	195	193	214	286	255	287	322	362	300	337
	Females	181	212	194	263	230	270	307	336	339	334	390
	Total	342	407	387	477	516	525	594	658	701	634	727
Over 15 y	**Males**	21	23	19	19	23	23	41	44	57	34	41
	Females	38	42	39	50	58	58	49	42	54	46	43
	Total	59	65	58	69	81	81	90	86	111	80	84
All ages	**Males**	1894	2005	2084	2117	2315	2444	2518	2624	2752	2788	2899
	Females	1843	1945	1978	2096	2235	2364	2434	2521	2661	2694	2850
	Total	3737	3950	4062	4213	4550	4808	4952	5145	5413	5482	5749
All ages 5 y & over	**Males 5 y & over**	1868	1974	2084	2117	2315	2444	2518	2624	2752	2788	2899
	Females 5 y & over	1795	1922	1978	2096	2235	2364	2434	2521	2661	2694	2850
	Total 5 y & over	3663	3896	4062	4213	4550	4808	4952	5145	5413	5482	5749
All 5-15 y	**Males 5-15 y**	1847	1951	2065	2098	2292	2421	2477	2580	2695	2754	2858
	Females 5-15 y	1805	1880	1939	2046	2177	2306	2385	2479	2607	2648	2807
	Total 5-15 y	3652	3831	4004	4144	4469	4727	4862	5059	5302	5402	5665

Appendix 7.1 continued (2)

		1890	*1891*	*1892*	*1893*	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	529	518	533	569	595	554	537	536	556	562	535
	Females	497	524	531	539	489	480	500	507	556	544	497
	Total	1026	1042	1064	1108	1084	1034	1037	1043	1112	1106	1032
7-9 y	**Males**	1024	1016	1013	1019	1015	1032	1039	1044	996	960	962
	Females	1002	1005	974	945	963	942	939	903	897	907	907
	Total	2026	2021	1987	1964	1978	1974	1978	1947	1893	1867	1869
10-12 y	**Males**	1008	968	985	948	990	1030	1014	977	998	1026	1034
	Females	951	949	943	939	926	915	934	929	928	883	851
	Total	1959	1917	1928	1887	1916	1945	1948	1906	1926	1905	1885
13-14 y	**Males**	370	383	385	380	439	442	460	475	463	419	397
	Females	356	403	390	409	428	428	410	432	382	377	373
	Total	726	786	775	789	867	870	870	907	845	796	770
Over 15 y	**Males**	30	53	67	50	51	83	72	69	67	74	82
	Females	48	59	67	80	79	89	99	71	72	83	53
	Total	78	112	134	230	130	172	171	140	139	157	135
All ages	**Males**	2961	2938	2983	2966	3090	3141	3122	3101	3080	3041	3010
	Females	2874	2891	2905	2912	2885	2854	2882	2842	2835	2794	2681
	Total	5835	5829	5888	5878	5975	5995	6004	5943	5915	5835	5691
All ages 5 y & over	**Males 5 y & over**	2961	2938	2983	2966	3090	3141	3122	3101	3080	3041	3010
	Females 5 y & over	2874	2891	2905	2912	2885	2854	2882	2842	2835	2794	2681
	Total 5 y & over	5835	5829	5888	5878	5975	5995	6004	5943	5915	5835	5691
All 5-15 y	**Males 5-15 y**	2931	2885	2916	2916	3039	3058	3050	3032	3013	2967	2928
	Females 5-15 y	2826	2832	2838	2832	2806	2765	2783	2771	2763	2711	2628
	Total 5-15 y	5757	5717	5754	5748	5845	5823	5833	5803	5776	5678	5556

Appendix 7.1 continued (3)

		1901	*1902*	*1903*	*1904*	*1905*	*1906*	*1907*	*1908*	*1909*	*1910*	*1911*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	523	559	563	524	582	611	561	608	644	654	659
	Females	501	516	538	553	522	515	486	523	522	561	594
	Total	1024	1075	1101	1077	1104	1126	1047	1131	1166	1215	1253
7-9 y	**Males**	947	936	956	967	978	975	992	1018	1021	1054	1114
	Females	909	906	900	884	914	890	898	895	908	964	987
	Total	1856	1842	1856	1851	1892	1865	1890	1913	1929	2018	2101
10-12 y	**Males**	945	957	921	918	899	945	936	942	950	959	1024
	Females	854	861	883	918	888	863	828	860	872	872	884
	Total	1799	1818	1804	1836	1787	1808	1764	1802	1822	1831	1908
13-14 y	**Males**	456	430	405	352	351	375	351	376	368	347	377
	Females	367	342	321	299	357	331	337	338	312	331	339
	Total	823	772	726	651	708	706	688	714	680	678	716
Over 15 y	**Males**	73	76	67	53	50	50	43	44	55	41	42
	Females	75	74	60	54	33	37	41	62	64	51	57
	Total	148	150	127	107	83	87	84	106	119	92	99
All ages	**Males**	2944	2958	2912	2814	2860	2956	2883	2988	3038	3055	3216
	Females	2706	2699	2702	2708	2714	2636	2590	2678	2678	2779	2861
	Total	5650	5657	5614	5522	5574	5592	5473	5666	5716	5834	6077
All ages 5 y & over	**Males 5 y & over**	2944	2958	2912	2814	2860	2956	2883	2988	3038	3055	3216
	Females 5 y & over	2706	2699	2702	2708	2714	2636	2590	2678	2678	2779	2861
	Total 5 y & over	5650	5657	5614	5522	5574	5592	5473	5666	5716	5834	6077
All 5-15 y	**Males 5-15 y**	2871	2882	2845	2761	2810	2906	2840	2944	2983	3014	3174
	Females 5-15 y	2631	2625	2642	2654	2681	2599	2549	2616	2614	2728	2804
	Total 5-15 y	5502	5507	5487	5415	5491	5505	5389	5560	5597	5742	5978

Appendix 7.2 – Nelson Education District gender age ratios for 5-6 y age groups and 13-14 y age group to 7-9 y age group (source E1 reports)

Males	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***
5-6 y/7-9 y	0.5704	0.6842	0.6713	0.6853	0.6788	0.6842	0.6116	0.5356	0.5217	0.5024	0.5166	0.5098	0.5262	0.5584	0.5862	0.5368	0.5168
13-14 y/7-9 y	0.2746	0.2745	0.2993	0.3629	0.3091	0.3357	0.3523	0.3736	0.2959	0.3188	0.3613	0.3770	0.3801	0.3729	0.4325	0.4283	0.4427
Females	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***
5-6 y/7-9 y	0.6187	0.5839	0.6790	0.6953	0.6804	0.6370	0.6800	0.5762	0.5418	0.5656	0.4960	0.5214	0.5452	0.5704	0.5078	0.5096	0.5325
13-14 y/7-9 y	0.3145	0.2783	0.3752	0.2945	0.3371	0.3739	0.4058	0.3637	0.3584	0.3996	0.3553	0.4010	0.4004	0.4328	0.4444	0.4544	0.4366

Males	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.5134	0.5582	0.5854	0.5561	0.5523	0.5972	0.5889	0.5419	0.5951	0.6267	0.5655	0.5972	0.6308	0.6205	0.5916
13-14 y/7-9 y	0.4550	0.4649	0.4365	0.4127	0.4815	0.4594	0.4236	0.3640	0.3589	0.3846	0.3538	0.3694	0.3604	0.3292	0.3384
Females	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.5615	0.6198	0.5998	0.5480	0.5512	0.5695	0.5978	0.6256	0.5711	0.5787	0.5412	0.5844	0.5749	0.5820	0.6018
13-14 y/7-9 y	0.4784	0.4259	0.4157	0.4112	0.4037	0.3775	0.3567	0.3382	0.3906	0.3719	0.3753	0.3777	0.3436	0.3434	0.3435

Appendix 7.3 – Nelson Education District raw Standards level data and pass/fail rates (source E1 reports)

	1879	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
Total no.	3663	3896	4062	4213	4550	4808	4952	5144	5413	5482	5749	5835	5829	5888
Total males	1868	1974	2084	2117	2315	2444	2518	2623	2752	2788	2899	2961	2938	2983
Total females	1795	1922	1978	2096	2235	2364	2434	2521	2661	2694	2850	2874	2891	2905
Total below Std 1	743	722	755	1085	1069	989	1098	1190	1247	1197	1396	1472	1443	1355
Males below Std 1	357	339	406	545	566	551	580	610	646	617	724	756	736	724
Females below Std 1	386	383	349	540	503	438	518	580	601	580	672	716	707	631
Below Std 1 pass rate	n/a													
Below Std 1 fail rate	n/a													
Total Std 1	858	744	706	674	732	833	736	731	777	799	757	778	772	755
Males Std 1	445	413	390	354	346	418	386	373	379	438	389	410	410	374
Females Std 1	413	331	316	320	386	415	350	358	398	361	368	368	362	381
Std 1 pass rate of presented	n/a	0.821	0.81	0.874	0.952	0.909	0.939	0.914	0.935	0.882	0.915	0.923	0.959	0.957
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	n/a	0.179	0.19	0.126	0.048	0.091	0.061	0.086	0.065	0.118	0.085	0.077	0.041	0.043
Std 1 fail rate of total Std 1														
Total Std 2	688	644	581	599	706	658	792	680	778	794	758	824	709	804
Males Std 2	358	372	303	321	361	342	420	361	394	392	401	434	354	421
Females Std 2	330	272	278	278	345	316	372	319	384	402	357	390	355	383
Std 2 pass rate of presented	n/a	0.853	0.77	0.727	0.886	0.922	0.815	0.843	0.864	0.813	0.861	0.8	0.954	0.916
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented	n/a	0.147	0.23	0.273	0.114	0.078	0.185	0.157	0.136	0.187	0.139	0.2	0.046	0.084
Std 2 fail rate of total Std 2														
Total Std 3	639	711	736	650	693	802	706	755	681	787	797	733	783	707
Males Std 3	322	376	385	368	380	378	345	408	371	401	388	372	420	350
Females Std 3	317	335	351	282	313	424	361	347	310	386	409	361	363	357
Std 3 pass rate of presented	n/a	0.775	0.662	0.715	0.857	0.822	0.806	0.825	0.839	0.717	0.856	0.841	0.936	0.912
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented	n/a	0.225	0.338	0.285	0.143	0.178	0.194	0.175	0.161	0.283	0.144	0.159	0.064	0.088
Std 3 fail rate of total Std 3														

Total Std 4	442	609	667	601	640	715	702	702	738	693	762	780	742	755
Males Std 4	221	285	328	277	319	370	343	347	390	340	381	378	355	395
Females Std 4	221	324	339	324	321	345	359	355	348	353	381	402	387	360
Std 4 pass rate of presented	n/a	0.749	0.574	0.689	0.713	0.573	0.768	0.664	0.849	0.736	0.837	0.65	0.84	0.935
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented	n/a	0.251	0.426	0.311	0.287	0.427	0.232	0.336	0.151	0.264	0.163	0.35	0.16	0.065
Std 4 fail rate of total Std 4														
Total Std 5	291	310	357	345	404	398	502	512	592	619	600	622	627	712
Males Std 5	149	128	172	168	200	189	239	242	276	305	288	310	305	331
Females Std 5	142	182	185	177	204	209	263	270	316	314	312	312	322	381
Std 5 pass rate of presented	n/a	0.705	0.705	0.681	0.71	0.855	0.81	0.884	0.795	0.675	0.753	0.712	0.853	0.787
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented	n/a	0.295	0.295	0.319	0.27	0.145	0.19	0.116	0.205	0.325	0.247	0.288	0.147	0.213
Std 5 fail rate of total Std 5														
Total Std 6	57	158	201	176	209	302	251	386	389	374	409	413	491	457
Males Std 6	25	63	81	58	108	147	128	192	211	189	197	208	234	226
Females Std 6	32	95	120	118	101	155	123	194	178	185	212	205	257	231
Std 6 pass rate of presented	n/a	0.852	0.732	0.708	0.759	0.875	0.85	0.82	0.795	0.769	0.855	0.725	0.885	0.899
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented	n/a	0.148	0.268	0.292	0.241	0.125	0.15	0.18	0.205	0.231	0.145	0.275	0.115	0.101
Std 6 fail rate of total Std 6														
Total above Std 6	19	52	59	83	97	111	165	189	211	219	270	213	262	343
Males above Std 6	17	29	19	26	35	49	77	91	85	106	131	93	124	162
Females above Std 6	2	23	40	57	62	62	88	98	126	113	139	120	138	181

Appendix 7.3 continued (2)

	1893	***1894***	***1895***	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***
Total no.	5878	5975	5995	6004	5943	5915	5835	5691	5650	5657	5614	5522	5574	5592
Total males	2966	3090	3141	3122	3101	3080	3041	3010	2944	2958	2912	2814	2860	2956
Total females	2912	2885	2854	2882	2842	2835	2794	2681	2706	2699	2702	2708	2714	2636
Total below Std 1	1369	1384	1254	1142	1192	1212	1286	1266	1347	1364	1390	1418	1453	1528
Males below Std 1	713	781	695	624	649	630	668	684	732	739	742	725	781	851
Females below Std 1	656	603	559	518	543	582	618	582	615	625	648	693	672	677
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	786	782	817	740	660	690	668	676	635	686	730	623	703	640
Males Std 1	397	404	455	382	361	374	367	362	321	371	378	335	349	335
Females Std 1	389	378	362	358	299	316	301	314	314	315	352	288	354	305
Std 1 pass rate of presented	0.884	0.93	0.92	0.93	0.943	0.955	0.948	0.827	0.869	0.882	0.81			
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	0.116	0.07	0.08	0.07	0.057	0.045	0.052	0.173	0.131	0.118	0.19			
Std 1 fail rate of total Std 1														
Total Std 2	772	811	787	837	767	719	682	696	707	631	672	733	625	620
Males Std 2	404	403	410	447	404	377	348	370	371	308	355	382	338	330
Females Std 2	368	408	377	390	363	342	334	326	336	323	317	351	287	290
Std 2 pass rate of presented	0.908	0.892	0.908	0.876	0.883	0.901	0.888	0.846	0.81	0.895	0.886			
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented	0.092	0.108	0.092	0.124	0.117	0.099	0.112	0.154	0.19	0.105	0.114			
Std 2 fail rate of total Std 2														
Total Std 3	819	829	944	936	904	826	809	680	689	745	678	694	708	674
Males Std 3	425	469	491	536	470	436	418	352	374	395	352	374	374	363
Females Std 3	394	360	453	400	434	390	391	328	315	350	326	320	334	311
Std 3 pass rate of presented	0.742	0.732	0.75	0.786	0.755	0.813	0.718	0.818	0.806	0.81	0.814			
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented	0.258	0.268	0.25	0.214	0.245	0.187	0.282	0.182	0.194	0.19	0.186			
Std 3 fail rate of total Std 3														

Total Std 4	648	776	832	873	834	868	780	808	697	735	725	645	686	690
Males Std 4	318	370	426	428	429	463	442	432	353	376	367	330	365	364
Females Std 4	330	406	406	445	405	405	338	376	344	359	358	315	321	326
Std 4 pass rate of presented	0.813	0.6	0.722	0.752	0.723	0.786	0.71	0.752	0.759	0.763	0.792			
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented	0.187	0.4	0.278	0.248	0.277	0.214	0.29	0.248	0.241	0.237	0.208			
Std 4 fail rate of total Std 4														
Total Std 5	719	618	602	725	728	711	745	706	679	593	643	655	570	618
Males Std 5	343	303	295	358	343	359	375	375	335	303	330	315	277	331
Females Std 5	376	315	307	367	385	352	370	331	344	290	313	340	293	287
Std 5 pass rate of presented	0.666	0.586	0.656	0.65	0.73	0.733	0.666	0.663	0.782	0.759	0.729			
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented	0.334	0.414	0.344	0.35	0.27	0.267	0.334	0.337	0.218	0.241	0.271			
Std 5 fail rate of total Std 5														
Total Std 6	489	536	457	452	542	536	568	528	555	520	504	514	600	594
Males Std 6	237	263	227	216	276	269	277	281	295	273	256	246	265	272
Females Std 6	252	273	230	236	266	267	291	247	260	247	248	268	335	322
Std 6 pass rate of presented	0.707	0.579	0.759	0.638	0.786	0.757	0.656	0.719	0.734	0.736	0.645			
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented	0.293	0.421	0.241	0.362	0.214	0.243	0.344	0.281	0.266	0.264	0.355			
Std 6 fail rate of total Std 6														
Total above Std 6	276	239	302	299	316	353	297	331	341	383	272	240	229	228
Males above Std 6	129	97	142	131	169	172	146	154	163	193	132	107	111	110
Females above Std 6	147	142	160	168	147	181	151	177	178	190	140	133	118	118

Appendix 7.3 continued (3)

	1907	***1908***	***1909***	***1910***	***1911***
Total no.	5473	5666	5716	5834	6077
Total males	2883	2988	3038	3055	3216
Total females	2590	2678	2678	2779	2861
Total below Std 1	1540	1849	1888	2034	2104
Males below Std 1	850	1006	1044	1112	1149
Females below Std 1	690	843	844	922	955
Below Std 1 pass rate					
Below Std 1 fail rate					
Total Std 1	622	622	733	757	765
Males Std 1	329	342	360	390	416
Females Std 1	293	280	373	367	349
Std 1 pass rate of presented					
Std 1 pass rate of total Std 1					
Std 1 fail rate of presented					
Std 1 fail rate of total Std 1					
Total Std 2	633	617	669	723	734
Males Std 2	334	329	368	360	377
Females Std 2	299	288	301	363	357
Std 2 pass rate of presented					
Std 2 pass rate of total Std 2					
Std 2 fail rate of presented					
Std 2 fail rate of total Std 2					
Total Std 3	643	632	653	641	745
Males Std 3	339	330	355	339	393
Females Std 3	304	302	298	302	352
Std 3 pass rate of presented					
Std 3 pass rate of total Std 3					
Std 3 fail rate of presented					
Std 3 fail rate of total Std 3					

Total Std 4	648	681	620	597	612
Males Std 4	358	359	325	316	325
Females Std 4	290	322	295	281	287
Std 4 pass rate of presented					
Std 4 pass rate of total Std 4					
Std 4 fail rate of presented					
Std 4 fail rate of total Std 4					
Total Std 5	640	596	557	525	541
Males Std 5	336	325	326	287	279
Females Std 5	304	271	231	238	262
Std 5 pass rate of presented					
Std 5 pass rate of total Std 5					
Std 5 fail rate of presented					
Std 5 fail rate of total Std 5					
Total Std 6	529	492	427	385	415
Males Std 6	246	219	188	176	212
Females Std 6	283	273	239	209	203
Std 6 pass rate of presented					
Std 6 pass rate of total Std 6					
Std 6 fail rate of presented					
Std 6 fail rate of total Std 6					
Total above Std 6	218	177	169	172	161
Males above Std 6	91	78	72	75	65
Females above Std 6	127	99	97	97	96

Appendix 7.4 – Nelson Education District observed and calculated expected pupil numbers for Standards 4, 5, and 6 (ob = observed; ex = expected; S3 to S4 = {S4 ob – previous year S3 ob}/ previous year S3 ob, as a %), this is the change in pupil numbers in successive years for successive Standards levels expressed as a percentage of the lower level; similarly for S4 to S5 and S5 to S6)

	1880	*1881*	*1882*	*1883*	*1884*	*1885*	*1886*	*1887*	*1888*	*1889*	*1890*	*1891*	*1892*
S3 ob	711	736	650	693	802	706	755	681	787	797	733	783	707
S4 ob	609	667	601	640	715	702	702	738	693	762	780	742	755
S3 pass rate	0.775	0.662	0.715	0.857	0.822	0.806	0.825	0.839	0.717	0.856	0.841	0.936	0.912
S4 fail rate	0.251	0.426	0.311	0.287	0.427	0.232	0.336	0.151	0.264	0.163	0.35	0.16	0.065
S4 ex		703.88	771.37	651.66	777.58	964.55	731.90	858.75	682.80	747.23	806.44	889.45	851.61
S3 to S4		-6.1885	-18.3424	-1.5385	3.1746	-12.4688	-0.5666	-2.2517	1.7621	-3.1766	-2.1330	1.2278	-3.5760
S4 Ob/Ex		0.9476	0.7791	0.9821	0.9195	0.7278	0.9591	0.8594	1.0149	1.0198	0.9672	0.8342	0.8866
S5 ob	310	357	345	404	398	502	512	592	619	600	622	627	712
S4 pass rate	0.749	0.574	0.689	0.713	0.573	0.768	0.664	0.849	0.736	0.837	0.65	0.84	0.935
S5 fail rate	0.295	0.295	0.319	0.27	0.145	0.19	0.116	0.205	0.325	0.247	0.288	0.147	0.213
S5 ex		547.59	488.17	524.14	565.40	467.41	634.52	525.52	747.92	711.22	785.99	686.14	715.45
S4 to S5		-41.3793	-48.2759	-32.7787	-37.8125	-29.7902	-27.0655	-15.6695	-16.1247	-13.4199	-18.3727	-19.6154	-4.0431
S5 Ob/Ex		0.6519	0.7067	0.7708	0.7039	1.0740	0.8069	1.1265	0.8276	0.8436	0.7914	0.9138	0.9952
S6 ob	158	201	176	209	302	251	386	389	374	409	413	491	457
S5 pass rate	0.705	0.705	0.681	0.71	0.855	0.81	0.884	0.795	0.675	0.753	0.712	0.853	0.787
S6 fail rate	0.148	0.268	0.292	0.241	0.125	0.15	0.18	0.205	0.231	0.145	0.275	0.115	0.101
S6 ex		241.93	305.55	286.34	337.21	378.04	444.27	522.09	550.39	504.22	511.11	556.44	591.30
S5 to S6		-35.1613	-50.7003	-39.4203	-25.2475	-36.9347	-23.1076	-24.0234	-36.8243	-33.9257	-31.1667	-21.0611	-27.1132
S6 Ob/Ex		0.8308	0.5760	0.7299	0.8956	0.6640	0.8688	0.7451	0.6795	0.8112	0.8081	0.8824	0.7729

Appendix 7.4 continued

	1893	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*	*1901*	*1902*	*1903*	*1904*
S3 ob	819	829	944	936	904	826	809	680	689	745	678	694
S4 ob	648	776	832	873	834	868	780	808	697	735	725	645
S3 pass rate	0.742	0.732	0.75	0.786	0.755	0.813	0.718	0.818	0.806	0.81	0.814	
S4 fail rate	0.187	0.4	0.278	0.248	0.277	0.214	0.29	0.248	0.241	0.237	0.208	
S4 ex	693.86	728.87	917.23	939.30	952.20	913.54	857.29	807.06	756.62	723.31	777.65	702.69
S3 to S4	-8.3451	-5.2503	0.3619	-7.5212	-10.8974	-3.9823	-5.5690	-0.1236	2.5000	6.6763	-2.6846	-4.8673
S4 Ob/Ex	0.9339	1.0647	0.9071	0.9294	0.8759	0.9502	0.9098	1.0012	0.9212	1.0162	0.9323	0.9179
S5 ob	719	618	602	725	728	711	745	706	679	593	643	655
S4 pass rate	0.813	0.6	0.722	0.752	0.723	0.786	0.71	0.752	0.759	0.763	0.792	
S5 fail rate	0.334	0.414	0.344	0.35	0.27	0.267	0.334	0.337	0.218	0.241	0.271	
S5 ex	857.58	766.97	721.45	807.79	910.25	799.54	872.09	802.63	845.54	677.05	703.72	748.45
S4 to S5	-4.7682	-4.6296	-22.4227	-12.8606	-16.6094	-14.7482	-14.1705	-9.4872	-15.9653	-14.9211	-12.5170	-9.6552
S5 Ob/Ex	0.8384	0.8058	0.8344	0.8975	0.7998	0.8893	0.8543	0.8796	0.8030	0.8759	0.9137	0.8751
S6 ob	489	536	457	452	542	536	568	528	555	520	504	514
S5 pass rate	0.666	0.586	0.656	0.65	0.73	0.733	0.666	0.663	0.782	0.759	0.729	
S6 fail rate	0.293	0.421	0.241	0.362	0.214	0.243	0.344	0.281	0.266	0.264	0.355	
S6 ex	606.50	622.13	587.80	505.05	634.87	647.43	651.41	691.56	616.45	678.61	587.37	647.67
S5 to S6	-31.3202	-25.4520	-26.0518	-24.9169	-25.2414	-26.3736	-20.1125	-29.1275	-21.3881	-23.4168	-15.0084	-20.0622
S6 Ob/Ex	0.8063	0.8616	0.7775	0.8950	0.8537	0.8279	0.8720	0.7635	0.9003	0.7663	0.8581	0.7936

Appendix 8.1 – Grey Education District raw age data and gender ratios for 7-9 y age groups (source E1 reports)
(NB Grey Education District was set up in 1885)

		1885	*1886*	*1887*	*1888*	*1889*	*1890*	*1891*	*1892*	*1893*	*1894*	*1895*	*1896*	*1897*	*1898*
Under 5 y	**Males**														
	Females														
	Total														
5-6 y	**Males**	141	120	136	157	164	172	142	160	136	120	136	134	173	159
	Females	150	170	169	162	166	157	146	157	133	150	158	149	169	165
	Total	291	290	305	319	330	329	288	317	269	270	294	283	342	324
7-9 y	**Males**	272	248	273	317	279	280	290	290	276	285	277	249	236	233
	Females	246	256	305	331	323	318	301	288	291	263	268	270	264	260
	Total	518	504	578	648	602	598	591	578	567	548	545	519	500	493
10-12 y	**Males**	170	229	245	253	265	282	262	252	253	258	275	274	279	253
	Females	204	226	234	275	274	285	273	297	270	276	268	277	266	286
	Total	374	455	479	528	539	567	535	549	523	534	543	551	545	539
13-14 y	**Males**	72	89	82	95	115	105	114	128	133	122	127	127	122	144
	Females	84	103	96	109	109	118	132	125	128	123	128	126	123	117
	Total	156	192	178	204	224	223	246	253	261	245	255	253	245	261
Over 15 y	**Males**	16	20	31	24	24	21	28	26	24	37	36	26	29	33
	Females	18	39	37	28	29	32	32	43	36	39	37	41	37	33
	Total	34	59	68	52	53	53	60	69	60	76	73	67	66	66
All ages	**Males**	671	706	767	846	847	860	836	856	822	822	851	810	839	822
	Females	702	794	841	905	901	910	884	910	858	851	859	863	859	861
	Total	1373	1500	1608	1751	1748	1770	1720	1766	1680	1673	1710	1673	1698	1683
All ages 5 y & over	**Males 5 y & over**	671	706	767	846	847	860	836	856	822	822	851	810	839	822
	Females 5 y & over	702	794	841	905	901	910	884	910	858	851	859	863	859	861
	Total 5 y & over	1373	1500	1608	1751	1748	1770	1720	1766	1680	1673	1710	1673	1698	1683
All 5-15 y	**Males 5-15 y**	655	686	736	822	823	839	808	830	798	785	815	784	810	789
	Females 5-15 y	684	755	804	877	872	878	852	867	822	812	822	822	822	828
	Total 5-15 y	1339	1441	1540	1699	1695	1717	1660	1697	1620	1597	1637	1606	1632	1617

Appendix 8.1 continued (2)

		1899	*1900*	*1901*	*1902*	*1903*	*1904*	*1905*	*1906*	*1907*	*1908*	*1909*	*1910*	*1911*
Under 5 y	**Males**													
	Females													
	Total													
5-6 y	**Males**	150	162	143	161	167	174	173	180	194	200	217	220	231
	Females	200	197	176	161	157	157	175	176	208	212	236	223	221
	Total	350	359	319	322	324	331	348	356	402	412	453	443	452
7-9 y	**Males**	226	229	224	225	230	265	264	273	307	316	342	359	350
	Females	226	247	266	271	291	291	269	253	293	279	314	333	334
	Total	452	476	490	496	521	556	533	526	600	595	656	692	684
10-12 y	**Males**	222	225	223	241	228	215	212	230	261	261	274	284	294
	Females	250	259	243	250	257	282	260	274	267	291	272	269	248
	Total	472	484	466	491	485	497	472	504	528	552	546	553	542
13-14 y	**Males**	146	132	118	107	108	126	115	90	87	116	124	115	119
	Females	119	124	101	122	111	110	92	121	109	106	121	103	95
	Total	265	256	219	229	219	236	207	211	196	222	245	218	214
Over 15 y	**Males**	37	37	40	43	27	20	18	25	25	9	17	27	24
	Females	29	42	30	21	25	27	14	21	33	32	21	25	21
	Total	66	79	70	64	52	47	32	46	58	41	38	52	45
All ages	**Males**	781	785	748	777	760	800	782	798	874	902	974	1005	1018
	Females	824	869	816	825	841	867	810	845	910	920	964	953	919
	Total	1605	1654	1564	1602	1601	1667	1592	1643	1784	1822	1938	1958	1937
All ages 5 y & over	**Males 5 y & over**	781	785	748	777	760	800	782	798	874	902	974	1005	1018
	Females 5 y & over	824	869	816	825	841	867	810	845	910	920	964	953	919
	Total 5 y & over	1605	1654	1564	1602	1601	1667	1592	1643	1784	1822	1938	1958	1937
All 5-15 y	**Males 5-15 y**	744	748	708	734	733	780	764	773	849	893	957	978	994
	Females 5-15 y	795	827	786	804	816	840	796	824	877	888	943	928	898

Appendix 8.2 – Grey Education District gender age ratios for 5-6 y age groups and 13-14 y age group to 7-9 y age group (source E1 reports)

Males	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***	***1897***
5-6 y/'7-9 y	0.5184	0.4839	0.4982	0.4953	0.5878	0.6143	0.4897	0.5517	0.4928	0.4211	0.4910	0.5382	0.7331
13-14 y/7-9 y	0.2647	0.3589	0.3004	0.2997	0.4122	0.3750	0.3931	0.4414	0.4819	0.4281	0.4585	0.5100	0.5169
Females	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***	***1897***
5-6 y/'7-9 y	0.6098	0.6641	0.5541	0.4894	0.5139	0.4937	0.4850	0.5451	0.4570	0.5703	0.5896	0.5519	0.6412
13-14 y/7-9 y	0.3415	0.4023	0.3148	0.3148	0.3375	0.3711	0.4385	0.4340	0.4399	0.4677	0.4776	0.4667	0.4659

Males	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/'7-9 y	0.6824	0.6637	0.7074	0.6384	0.7156	0.7261	0.6566	0.6553	0.6593	0.6319	0.6329	0.6345	0.6128	0.6600
13-14 y/7-9 y	0.6180	0.6460	0.5764	0.5268	0.4756	0.4696	0.4755	0.4356	0.3297	0.2834	0.3671	0.3626	0.3203	0.3400
Females	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/'7-9 y	0.6346	0.8850	0.7976	0.6617	0.5941	0.5395	0.5395	0.6506	0.6957	0.7099	0.7599	0.7516	0.6697	0.6617
13-14 y/7-9 y	0.4500	0.5265	0.5020	0.3797	0.4502	0.3814	0.3780	0.3420	0.4783	0.3720	0.3799	0.3854	0.3093	0.2844

Appendix 8.3 – Grey Education District raw Standards level data and pass/fail rates (source E1 reports)

	1885	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***	***1897***	***1898***
Total no.	1373	1500	1608	1751	1748	1770	1720	1766	1680	1673	1710	1673	1698	1683
Total males	671	706	767	846	847	860	836	856	822	822	851	810	839	822
Total females	702	794	841	905	901	910	884	910	858	851	859	863	859	861
Total below Std 1	406	429	435	528	524	552	537	565	543	529	578	532	565	520
Males below Std 1	200	194	206	266	265	289	277	280	260	255	297	261	259	250
Females below Std 1	206	235	229	262	259	263	260	285	283	274	281	271	306	270
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	245	226	268	233	246	226	200	239	202	197	209	219	183	189
Males Std 1	117	104	130	98	116	110	92	136	104	99	98	113	99	99
Females Std 1	128	122	138	135	130	116	108	103	98	98	111	106	84	90
Std 1 pass rate of presented	0.875	0.820	0.881	0.921	0.736	0.937	0.946	0.860	n/a	0.925	0.978	0.961	0.938	0.924
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	0.125	0.180	0.119	0.079	0.264	0.063	0.054	0.140	n/a	0.075	0.022	0.039	0.062	0.076
Std 1 fail rate of total Std 1														
Total Std 2	181	204	226	267	251	217	216	199	206	188	198	199	220	178
Males Std 2	101	98	94	135	115	108	107	85	116	89	97	85	111	94
Females Std 2	80	106	132	132	136	109	109	114	90	99	101	114	109	84
Std 2 pass rate of presented	0.744	0.830	0.772	0.846	0.838	0.960	0.894	0.914	n/a	0.747	0.943	0.955	0.976	0.936
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented	0.256	0.170	0.228	0.154	0.162	0.040	0.106	0.086	n/a	0.253	0.057	0.045	0.024	0.064
Std 2 fail rate of total Std 2														
Total Std 3	220	199	225	254	251	270	241	224	192	221	197	217	226	234
Males Std 3	106	109	116	108	110	124	114	121	82	119	93	107	110	122
Females Std 3	114	90	109	146	141	146	127	103	110	102	104	110	116	112
Std 3 pass rate of presented	0.591	0.782	0.729	0.826	0.664	0.876	0.859	0.918	n/a	0.769	0.765	0.834	0.831	0.891
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented	0.409	0.218	0.271	0.174	0.336	0.124	0.141	0.082	n/a	0.231	0.235	0.166	0.169	0.109
Std 3 fail rate of total Std 3														

Total Std 4	151	205	213	214	228	220	237	215	226	197	228	206	209	226
Males Std 4	71	102	108	114	113	94	103	91	124	95	115	95	92	89
Females Std 4	80	103	105	100	115	126	134	124	102	102	113	111	117	137
Std 4 pass rate of presented	0.496	0.618	0.644	0.605	0.681	0.855	0.845	0.783	n/a	0.537	0.715	0.708	0.797	0.806
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented	0.504	0.382	0.356	0.395	0.319	0.145	0.155	0.217	n/a	0.463	0.285	0.292	0.203	0.194
Std 4 fail rate of total Std 4														
Total Std 5	105	117	151	138	130	156	165	182	152	183	144	155	155	174
Males Std 5	43	50	74	69	66	75	77	76	65	97	69	82	90	82
Females Std 5	62	67	77	69	64	81	88	106	87	86	75	73	65	92
Std 5 pass rate of presented	0.536	0.680	0.602	0.718	0.505	0.664	0.839	0.845	n/a	0.506	0.743	0.676	0.753	0.817
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented	0.464	0.320	0.398	0.282	0.495	0.336	0.161	0.155	n/a	0.494	0.257	0.324	0.247	0.183
Std 5 fail rate of total Std 5														
Total Std 6	51	91	55	86	87	71	75	98	118	91	103	99	92	112
Males Std 6	26	34	22	40	46	30	41	44	52	39	60	46	57	58
Females Std 6	25	57	33	46	41	41	34	54	66	52	43	53	35	54
Std 6 pass rate of presented	0.605	0.689	0.692	0.649	0.663	0.937	0.897	0.826	n/a	0.707	0.761	0.743	0.851	0.811
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented	0.395	0.311	0.308	0.351	0.337	0.063	0.103	0.174	n/a	0.293	0.239	0.257	0.149	0.189
Std 6 fail rate of total Std 6														
Total above Std 6	14	29	35	31	31	58	49	44	41	67	53	46	48	50
Males above Std 6	7	15	17	16	16	30	25	23	19	29	22	21	21	28
Females above Std 6	7	14	18	15	15	28	24	21	22	38	31	25	27	22

Appendix 8.3 continued

	1899	*1900*	*1901*	*1902*	*1903*	*1904*	*1905*	*1906*	*1907*	*1908*	*1909*	*1910*	*1911*
Total no.	1605	1654	1564	1602	1601	1667	1592	1643	1784	1822	1938	1958	1937
Total males	781	785	748	777	760	800	782	798	874	902	974	1005	1018
Total females	824	869	816	825	841	867	810	845	910	920	964	953	919
Total below Std 1	493	518	499	539	521	547	569	591	631	728	818	863	818
Males below Std 1	227	245	230	272	259	272	283	301	326	366	410	432	421
Females below Std 1	266	273	269	267	262	275	286	290	305	362	408	431	397
Below Std 1 pass rate													
Below Std 1 fail rate													
Total Std 1	171	199	173	168	175	165	178	153	209	203	206	198	233
Males Std 1	81	91	88	77	80	87	86	75	95	109	101	105	122
Females Std 1	90	108	85	91	95	78	92	78	114	94	105	93	111
Std 1 pass rate of presented	0.955	0.912	0.909	0.855	0.896								
Std 1 pass rate of total Std 1													
Std 1 fail rate of presented	0.045	0.088	0.091	0.145	0.104								
Std 1 fail rate of total Std 1													
Total Std 2	185	172	182	166	167	199	160	185	166	189	205	216	202
Males Std 2	90	79	83	82	75	88	87	98	79	90	115	104	100
Females Std 2	95	93	99	84	92	111	73	87	87	99	90	112	102
Std 2 pass rate of presented	0.976	0.970	0.942	0.975	0.874								
Std 2 pass rate of total Std 2													
Std 2 fail rate of presented	0.024	0.030	0.058	0.025	0.126								
Std 2 fail rate of total Std 2													
Total Std 3	185	196	168	175	191	198	180	172	209	176	197	192	207
Males Std 3	97	99	71	73	91	94	79	88	103	81	95	112	109
Females Std 3	88	97	97	102	100	104	101	84	106	95	102	80	98
Std 3 pass rate of presented	0.813	0.896	0.875	0.912	0.835								
Std 3 pass rate of total Std 3													
Std 3 fail rate of presented	0.187	0.104	0.125	0.088	0.165								
Std 3 fail rate of total Std 3													

Total Std 4	221	200	192	197	171	198	196	163	157	181	180	163	182
Males Std 4	120	107	96	92	81	94	93	69	89	98	91	77	107
Females Std 4	101	93	96	105	90	104	103	94	68	83	89	86	75
Std 4 pass rate of presented	0.751	0.995	0.795	0.869	0.802								
Std 4 pass rate of total Std 4													
Std 4 fail rate of presented	0.249	0.005	0.205	0.131	0.198								
Std 4 fail rate of total Std 4													
Total Std 5	170	182	169	147	170	138	144	171	191	156	149	154	120
Males Std 5	76	85	95	78	71	65	69	75	88	77	75	85	65
Females Std 5	94	97	74	69	99	73	75	96	103	79	74	69	55
Std 5 pass rate of presented	0.870	0.882	0.827	0.924	0.818								
Std 5 pass rate of total Std 5													
Std 5 fail rate of presented	0.130	0.118	0.173	0.076	0.182								
Std 5 fail rate of total Std 5													
Total Std 6	123	120	114	133	139	153	121	135	145	131	140	123	125
Males Std 6	65	53	58	69	74	64	61	64	62	67	70	66	68
Females Std 6	58	67	56	64	65	89	60	71	83	64	70	57	57
Std 6 pass rate of presented	0.864	0.833	0.838	0.775	0.615								
Std 6 pass rate of total Std 6													
Std 6 fail rate of presented	0.136	0.167	0.162	0.225	0.385								
Std 6 fail rate of total Std 6													
Total above Std 6	57	67	67	77	67	69	44	73	76	58	43	49	50
Males above Std 6	25	26	27	34	29	36	24	29	32	14	17	24	26
Females above Std 6	32	41	40	43	38	33	20	44	44	44	26	25	24

Appendix 8.4 – Grey Education District observed and calculated expected pupil numbers for Standards 4, 5, and 6 (ob = observed; ex = expected; S3 to S4 = {S4 ob – previous year S3 ob}/ previous year S3 ob, as a %), this is the change in pupil numbers in successive years for successive Standards levels expressed as a percentage of the lower level; similarly for S4 to S5 and S5 to S6)

	1885	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***
S3 ob	220	199	225	254	251	270	241	224	192	221
S4 ob	151	205	213	214	228	220	237	215	226	197
S3 pass rate	0.591	0.782	0.729	0.826	0.664	0.876	0.859	0.918	n/a	0.769
S4 fail rate	0.504	0.382	0.356	0.395	0.319	0.145	0.155	0.217	n/a	0.463
S4 ex		206.12	233.93	239.85	294.33	239.40	268.42	243.75	252.29	
S3 to S4		-6.8182	7.0352	-4.8889	-10.2362	-12.3506	-12.2222	-10.7884	0.8929	2.6042
S4 Ob/Ex		0.9945	0.9105	0.8922	0.7746	0.9190	0.8829	0.8820	0.8958	
S5 ob	105	117	151	138	130	156	165	182	152	183
S4 pass rate	0.496	0.618	0.644	0.605	0.681	0.855	0.845	0.783	n/a	0.537
S5 fail rate	0.464	0.32	0.398	0.282	0.495	0.336	0.161	0.155	n/a	0.494
S5 ex		123.62	164.13	197.27	168.39	219.62	240.52	226.83	196.56	
S4 to S5		-22.5166	-26.3415	-35.2113	-39.2523	-31.5789	-25.0000	-23.2068	-29.3023	-19.0265
S5 Ob/Ex		0.9465	0.9200	0.6995	0.7720	0.7103	0.6860	0.8024	0.7733	
S6 ob	51	91	55	86	87	71	75	98	118	91
S5 pass rate	0.536	0.68	0.602	0.718	0.505	0.664	0.839	0.845	n/a	0.506
S6 fail rate	0.395	0.311	0.308	0.351	0.337	0.063	0.103	0.174	n/a	0.293
S6 ex		76.43	107.86	107.84	129.27	94.97	108.06	146.16	170.84	
S5 to S6		-13.3333	-52.9915	-43.0464	-36.9565	-45.3846	-51.9231	-40.6061	-35.1648	-40.1316
S6 Ob/Ex		1.1907	0.5099	0.7975	0.6730	0.7476	0.6941	0.6705	0.6907	

Appendix 8.4 continued

	1895	*1896*	*1897*	*1898*	*1899*	*1900*	*1901*	*1902*	*1903*	*1904*
S3 ob	197	217	226	234	185	196	168	175	191	198
S4 ob	228	206	209	226	221	200	192	197	171	198
S3 pass rate	0.765	0.834	0.831	0.891	0.813	0.896	0.875	0.912	0.835	
S4 fail rate	0.285	0.292	0.203	0.194	0.249	0.005	0.205	0.131	0.198	
S4 ex	261.16	215.69	241.13	230.23	252.34	205.43	176.62	186.36	185.41	193.34
S3 to S4	3.1674	4.5685	-3.6866	0.0000	-5.5556	8.1081	-2.0408	17.2619	-2.2857	3.6649
S4 Ob/Ex	0.8730	0.9551	0.8668	0.9816	0.8758	0.9735	1.0871	1.0571	0.9223	1.0241
S5 ob	144	155	155	174	170	182	169	147	170	138
S4 pass rate	0.715	0.708	0.797	0.806	0.751	0.995	0.795	0.869	0.802	
S5 fail rate	0.257	0.324	0.247	0.183	0.13	0.118	0.173	0.076	0.182	
S5 ex	196.19	200.03	196.07	204.86	214.00	188.07	220.48	181.88	182.37	168.08
S4 to S5	-26.9036	-32.0175	-24.7573	-16.7464	-24.7788	-17.6471	-15.5000	-23.4375	-13.7056	-19.2982
S5 Ob/Ex	0.7340	0.7749	0.7905	0.8494	0.7944	0.9677	0.7665	0.8082	0.9322	0.8210
S6 ob	103	99	92	112	123	120	114	133	139	153
S5 pass rate	0.743	0.676	0.753	0.817	0.87	0.882	0.827	0.924	0.818	
S6 fail rate	0.239	0.257	0.149	0.189	0.136	0.167	0.162	0.225	0.385	0.385
S6 ex	119.26	131.61	130.22	130.42	163.33	164.63	180.56	158.23	165.75	192.58
S5 to S6	-43.7158	-31.2500	-40.6452	-27.7419	-29.3103	-29.4118	-37.3626	-21.3018	-5.4422	-10.0000
S6 Ob/Ex	0.8637	0.7522	0.7065	0.8587	0.7531	0.7289	0.6314	0.8405	0.8386	0.7945

Appendix 9.1 – Westland Education District raw age data and gender ratios for 7-9 y age groups (source E1 reports)

		1879	*1880*	*1881*	*1882*	*1883*	*1884*	*1885*	*1886*	*1887*	*1888*	*1889*
Under 5 y	**Males**	107	130									
	Females	128	146									
	Total	235	276									
5-6 y	**Males**	328	343	354	364	331	286	177	163	172	143	138
	Females	344	363	339	340	318	272	173	145	170	155	133
	Total	672	706	693	704	649	558	350	308	342	298	271
7-9 y	**Males**	483	491	511	499	541	563	318	328	303	313	294
	Females	483	552	567	552	535	526	298	315	289	294	268
	Total	966	1043	1078	1051	1076	1089	616	643	592	607	562
10-12 y	**Males**	374	393	429	404	437	461	302	301	323	301	287
	Females	360	379	425	451	523	551	324	296	292	271	268
	Total	734	772	854	855	960	1012	626	597	615	572	555
13-14 y	**Males**	99	145	122	127	138	189	118	107	135	143	123
	Females	92	132	122	138	175	193	146	161	161	139	127
	Total	191	277	244	265	313	382	264	268	296	282	250
Over 15 y	**Males**	22	36	27	16	21	36	20	31	24	25	29
	Females	23	33	36	32	21	28	28	31	51	52	29
	Total	45	69	63	48	42	64	48	62	75	77	58
All ages	**Males**	1413	1538	1443	1410	1468	1535	935	930	957	925	871
	Females	1430	1605	1489	1513	1572	1570	969	948	963	911	825
	Total	2843	3143	2932	2923	3040	3105	1904	1878	1920	1836	1696
All ages 5 y & over	**Males 5 y & over**	1306	1408	1443	1410	1468	1535	935	930	957	925	871
	Females 5 y & over	1302	1459	1489	1513	1572	1570	969	948	963	911	825
	Total 5 y over	2608	2867	2932	2923	3040	3105	1904	1878	1920	1836	1696
All 5-15 y	**Males 5-15 y**	1284	1372	1416	1394	1447	1499	915	899	933	900	842
	Females 5-15 y	1279	1426	1453	1481	1551	1542	921	917	912	859	796
	Total 5-15 y	2563	2978	2869	2875	2998	3041	1836	1816	1845	1759	1638

Appendix 9.1 continued (2)

		1890	*1891*	*1892*	*1893*	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	129	136	134	141	134	138	127	112	120	109	101
	Females	141	128	135	139	144	115	117	104	101	83	97
	Total	270	264	269	280	278	253	244	216	221	192	198
7-9 y	**Males**	260	244	242	244	236	244	230	217	205	192	190
	Females	259	239	234	246	243	267	254	233	203	201	167
	Total	519	483	476	490	479	511	484	450	408	393	357
10-12 y	**Males**	276	275	256	249	243	228	236	232	214	198	209
	Females	243	257	244	244	236	231	231	234	253	234	218
	Total	519	532	500	493	479	459	467	466	467	432	427
13-14 y	**Males**	143	141	132	139	135	127	126	122	109	106	102
	Females	146	133	135	137	118	119	128	112	107	109	120
	Total	289	274	267	276	253	246	254	234	216	215	222
Over 15 y	**Males**	38	38	47	40	48	45	51	49	41	29	36
	Females	30	34	55	54	37	37	41	47	24	31	38
	Total	68	72	102	94	85	82	92	96	65	60	74
All ages	**Males**	846	834	811	813	796	782	770	732	689	634	638
	Females	819	791	803	820	778	769	771	730	688	658	640
	Total	1665	1625	1614	1633	1574	1551	1541	1462	1377	1292	1278
All ages 5 y & over	**Males 5 y & over**	846	834	811	813	796	782	770	732	689	634	638
	Females 5 y & over	819	791	803	820	778	769	771	730	688	658	640
	Total 5 y & over	1665	1625	1614	1633	1574	1551	1541	1462	1377	1292	1278
All 5-15 y	**Males 5-15 y**	808	796	764	773	748	737	719	683	648	605	602
	Females 5-15 y	789	757	748	766	741	732	730	683	664	627	602
	Total 5-15 y	1597	1553	1512	1539	1489	1469	1449	1366	1312	1232	1204

Appendix 9.1 continued (3)

		1901	*1902*	*1903*	*1904*	*1905*	*1906*	*1907*	*1908*	*1909*	*1910*	*1911*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	106	118	109	99	104	121	123	130	112	126	150
	Females	110	99	103	99	102	112	115	120	114	137	130
	Total	216	217	212	198	206	233	238	250	226	263	280
7-9 y	**Males**	171	156	160	163	173	160	164	167	193	186	186
	Females	150	158	158	171	177	174	157	166	179	185	171
	Total	321	314	318	334	350	334	321	333	372	371	357
10-12 y	**Males**	176	177	180	160	156	158	159	167	155	169	153
	Females	191	171	148	132	118	138	147	158	158	151	156
	Total	367	348	328	292	274	296	306	325	313	320	309
13-14 y	**Males**	96	96	83	79	70	67	67	65	87	89	68
	Females	115	88	93	82	72	55	43	68	63	70	67
	Total	211	184	176	161	142	122	110	133	150	159	135
Over 15 y	**Males**	34	17	22	22	22	18	18	20	22	22	34
	Females	35	41	31	29	30	32	26	17	22	16	21
	Total	69	58	53	51	52	50	44	37	44	38	55
All ages	**Males**	583	564	554	523	525	524	531	549	569	592	591
	Females	601	557	533	513	499	511	488	529	536	559	545
	Total	1184	1121	1087	1036	1024	1035	1019	1078	1105	1151	1136
All ages 5 y & over	**Males 5 y & over**	583	564	554	523	525	524	531	549	569	592	591
	Females 5 y & over	601	557	533	513	499	511	488	529	536	559	545
	Total 5 y & over	1184	1121	1087	1036	1024	1035	1019	1078	1105	1151	1136
All 5-15 y	**Males 5-15 y**	549	547	532	501	503	506	513	529	547	570	557
	Females 5-15 y	566	516	502	484	469	479	462	512	514	543	524
	Total 5-15 y	1115	1063	1034	985	972	985	975	1041	1061	1113	1081

Appendix 9.2 – Westland Education District gender age ratios for 5-6 y age groups and 13-14 y age group to 7-9 y age group (source E1 reports)

Males	***1879***	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***
5-6 y/7-9 y	0.6791	0.6986	0.6928	0.7295	0.6118	0.5080	0.5566	0.4970	0.5677	0.4569	0.4694	0.4962	0.5574	0.5537	0.5779	0.5678	0.5656
13-14 y/7-9 y	0.2050	0.2953	0.2387	0.2545	0.2551	0.3357	0.3711	0.3262	0.4455	0.4569	0.4184	0.5500	0.5779	0.5455	0.5697	0.5720	0.5205
Females	***1879***	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***
5-6 y/7-9 y	0.7122	0.6576	0.5979	0.6159	0.5944	0.5171	0.5805	0.4603	0.5882	0.5272	0.4963	0.5444	0.5356	0.5769	0.5650	0.5926	0.4307
13-14 y/7-9 y	0.1905	0.2391	0.2152	0.2500	0.3271	0.3669	0.4899	0.5111	0.5571	0.4728	0.4739	0.5637	0.5565	0.5769	0.5569	0.4856	0.4457

Males	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.5522	0.5161	0.5854	0.5677	0.5316	0.6199	0.7564	0.6813	0.6074	0.6012	0.7563	0.7500	0.7784	0.5803	0.6774	0.8065
13-14 y/7-9 y	0.5478	0.5622	0.5317	0.5521	0.5368	0.5614	0.6154	0.5188	0.4847	0.4046	0.4188	0.4085	0.3892	0.4508	0.4785	0.3656
Females	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.4606	0.4464	0.4975	0.4129	0.5808	0.7333	0.6266	0.6519	0.5789	0.5763	0.6437	0.7325	0.7229	0.6369	0.7405	0.7602
13-14 y/7-9 y	0.5039	0.4807	0.5271	0.5423	0.7186	0.7667	0.5570	0.5886	0.4795	0.4068	0.3161	0.2739	0.4096	0.3520	0.3784	0.3918

Appendix 9.3 – Westland Education District raw Standards level data and pass/fail rates (source E1 reports)

	1879	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
Total no.	2608	2867	2935	2923	3040	3105	1904	1878	1920	1836	1696	1665	1625	1614
Total males	1306	1408	1445	1410	1468	1535	935	930	957	925	871	846	834	811
Total females	1302	1459	1490	1513	1572	1570	969	948	963	911	825	819	791	803
Total below Std 1	757	901	668	725	813	796	492	500	557	486	471	464	412	385
Males below Std 1	373	435	336	367	415	412	244	265	281	238	258	230	218	190
Females below Std 1	384	466	332	358	398	384	248	235	276	248	213	234	194	195
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	722	763	643	601	565	497	271	246	207	263	220	201	202	200
Males Std 1	351	370	315	284	299	267	151	117	115	138	100	114	103	111
Females Std 1	371	393	328	317	266	230	120	129	92	125	120	87	99	89
Std 1 pass rate of presented	n/a	0.990	0.940	0.760	0.954	0.915	0.979	0.798	0.868	0.921	0.874	0.943	0.824	0.835
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	n/a	0.010	0.060	0.240	0.046	0.085	0.021	0.202	0.132	0.079	0.126	0.057	0.176	0.165
Std 1 fail rate of total Std 1														
Total Std 2	454	533	458	431	456	478	269	256	231	223	239	229	196	201
Males Std 2	214	240	224	199	193	238	131	140	110	122	122	114	109	100
Females Std 2	240	293	234	232	263	240	138	116	121	101	117	115	87	101
Std 2 pass rate of presented		0.970	0.940	0.650	0.877	0.828	0.857	0.777	0.867	0.808	0.801	0.820	0.890	0.851
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented		0.030	0.060	0.350	0.123	0.172	0.143	0.223	0.133	0.192	0.199	0.180	0.110	0.149
Std 2 fail rate of total Std 2														
Total Std 3	376	412	481	494	431	508	288	267	265	230	207	244	268	244
Males Std 3	189	207	223	240	205	234	141	122	135	112	107	128	138	140
Females Std 3	187	205	258	254	226	274	147	145	130	118	100	116	130	104
Std 3 pass rate of presented		0.880	0.740	0.600	0.806	0.713	0.774	0.762	0.795	0.767	0.766	0.806	0.684	0.714
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented		0.120	0.260	0.400	0.194	0.287	0.226	0.238	0.205	0.233	0.234	0.194	0.316	0.286
Std 3 fail rate of total Std 3														

Total Std 4	295	325	352	355	369	383	232	230	231	242	222	180	204	216
Males Std 4	151	164	175	176	172	169	104	116	118	123	104	85	98	98
Females Std 4	144	161	177	179	197	214	128	114	113	119	118	95	106	118
Std 4 pass rate of presented		0.870	0.660	0.694	0.842	0.708	0.854	0.811	0.837	0.747	0.736	0.807	0.655	0.724
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented		0.130	0.340	0.306	0.158	0.292	0.146	0.189	0.163	0.253	0.264	0.193	0.345	0.276
Std 4 fail rate of total Std 4														
Total Std 5	162	137	210	228	230	242	183	205	221	182	162	171	177	181
Males Std 5	83	77	102	100	101	118	84	91	109	93	83	77	84	87
Females Std 5	79	60	108	128	129	124	99	114	112	89	79	94	93	94
Std 5 pass rate of presented		0.950	0.540	0.762	0.857	0.753	0.872	0.687	0.709	0.743	0.780	0.773	0.393	0.667
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented		0.050	0.460	0.238	0.143	0.247	0.128	0.313	0.291	0.257	0.220	0.227	0.607	0.333
Std 5 fail rate of total Std 5														
Total Std 6	67	67	84	65	144	146	111	105	133	140	114	103	90	119
Males Std 6	45	41	45	32	69	77	47	50	52	67	63	55	42	58
Females Std 6	22	26	39	33	75	69	64	55	81	73	51	48	48	61
Std 6 pass rate of presented		0.980	0.910	0.930	0.700	0.713	0.837	0.667	0.746	0.750	0.848	0.784	0.488	0.696
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented		0.020	0.090	0.070	0.300	0.287	0.163	0.333	0.254	0.250	0.152	0.216	0.512	0.304
Std 6 fail rate of total Std 6														
Total above Std 6	10	5	39	24	32	65	58	69	75	70	61	73	76	68
Males above Std 6	7	4	25	12	14	30	33	29	37	32	34	43	42	27
Females above Std 6	3	1	14	12	18	35	25	40	38	38	27	30	34	41

Appendix 9.3 continued (2)

	1893	***1894***	***1895***	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***
Total no.	1633	1574	1551	1541	1462	1377	1292	1278	1184	1121	1087	1036	1024	1035
Total males	813	796	782	770	732	689	634	638	583	564	554	523	525	524
Total females	820	778	769	771	730	688	658	640	601	557	533	513	499	511
Total below Std 1	388	372	352	321	297	272	264	276	302	322	328	299	320	363
Males below Std 1	199	186	193	168	155	147	141	145	155	176	180	156	169	187
Females below Std 1	189	186	159	153	142	125	123	131	147	146	148	143	151	176
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	202	183	194	182	157	184	142	120	118	112	110	120	131	101
Males Std 1	103	94	92	98	76	94	74	55	54	48	50	62	68	50
Females Std 1	99	89	102	84	81	90	68	65	64	64	60	58	63	51
Std 1 pass rate of presented	0.892	0.925	0.876	0.921	0.915	0.949	0.946	0.970	0.904	0.965	0.988			
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	0.108	0.075	0.124	0.079	0.085	0.051	0.054	0.030	0.096	0.035	0.012			
Std 1 fail rate of total Std 1														
Total Std 2	192	206	169	187	167	143	157	149	130	121	123	119	109	132
Males Std 2	97	103	81	85	92	67	73	81	69	59	58	57	55	73
Females Std 2	95	103	88	102	75	76	84	68	61	62	65	62	54	59
Std 2 pass rate of presented	0.960	0.921	0.905	0.943	0.930	0.918	0.966	0.958	0.926	0.860	0.847			
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented	0.040	0.079	0.095	0.057	0.070	0.082	0.034	0.042	0.074	0.140	0.153			
Std 2 fail rate of total Std 2														
Total Std 3	235	199	207	180	198	181	162	154	119	128	104	104	102	109
Males Std 3	123	97	105	86	88	99	80	75	64	69	54	52	48	59
Females Std 3	112	102	102	94	110	82	82	79	55	59	50	52	54	50
Std 3 pass rate of presented	0.864	0.843	0.876	0.859	0.881	0.828	0.905	0.858	0.940	0.866	0.903			
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented	0.136	0.157	0.124	0.141	0.119	0.172	0.095	0.142	0.060	0.134	0.097			
Std 3 fail rate of total Std 3														

Total Std 4	227	213	205	204	169	181	175	157	168	141	125	112	107	93
Males Std 4	119	111	99	107	75	71	85	84	84	82	70	60	55	40
Females Std 4	108	102	106	97	94	110	90	73	84	59	55	52	52	53
Std 4 pass rate of presented	0.807	0.877	0.825	0.824	0.890	0.768	0.874	0.828	0.794	0.735	0.841			
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented	0.193	0.123	0.175	0.176	0.110	0.232	0.126	0.172	0.206	0.265	0.159			
Std 4 fail rate of total Std 4														
Total Std 5	187	198	191	196	175	135	141	158	133	104	118	103	98	91
Males Std 5	86	110	99	100	99	61	63	74	64	42	59	54	59	44
Females Std 5	101	88	92	96	76	74	78	84	69	62	59	49	39	47
Std 5 pass rate of presented	0.836	0.819	0.747	0.824	0.870	0.814	0.900	0.880	0.860	0.900	0.781			
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented	0.164	0.181	0.253	0.176	0.130	0.186	0.100	0.120	0.140	0.100	0.219			
Std 5 fail rate of total Std 5														
Total Std 6	115	123	125	142	148	133	121	129	109	106	95	92	95	78
Males Std 6	47	54	67	65	72	74	53	60	46	54	45	43	41	42
Females Std 6	68	69	58	77	76	59	68	69	63	52	50	49	54	36
Std 6 pass rate of presented	0.802	0.885	0.878	0.885	0.922	0.814	0.840	0.867	0.859	0.816	0.731			
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented	0.198	0.115	0.122	0.115	0.078	0.186	0.160	0.133	0.141	0.184	0.269			
Std 6 fail rate of total Std 6														
Total above Std 6	87	80	108	129	151	148	130	135	105	87	84	87	62	68
Males above Std 6	39	41	46	61	75	76	65	64	47	34	38	39	30	29
Females above Std 6	48	39	62	68	76	72	65	71	58	53	46	48	32	39

Appendix 9.3 continued (3)

	1907	*1908*	*1909*	*1910*	*1911*
Total no.	1019	1078	1105	1151	1136
Total males	531	549	569	592	591
Total females	488	529	536	559	545
Total below Std 1	355	364	375	428	452
Males below Std 1	191	195	195	217	248
Females below Std 1	164	169	180	211	204
Below Std 1 pass rate					
Below Std 1 fail rate					
Total Std 1	115	136	124	118	118
Males Std 1	53	64	64	64	60
Females Std 1	62	72	60	54	58
Std 1 pass rate of presented					
Std 1 pass rate of total Std 1					
Std 1 fail rate of presented					
Std 1 fail rate of total Std 1					
Total Std 2	96	113	133	146	132
Males Std 2	48	58	58	71	67
Females Std 2	48	55	75	75	65
Std 2 pass rate of presented					
Std 2 pass rate of total Std 2					
Std 2 fail rate of presented					
Std 2 fail rate of total Std 2					
Total Std 3	126	117	99	120	119
Males Std 3	64	63	56	61	56
Females Std 3	62	54	43	59	63
Std 3 pass rate of presented					
Std 3 pass rate of total Std 3					
Std 3 fail rate of presented					
Std 3 fail rate of total Std 3					

Total Std 4	105	103	128	104	122
Males Std 4	64	55	75	56	59
Females Std 4	41	48	53	48	63
Std 4 pass rate of presented					
Std 4 pass rate of total Std 4					
Std 4 fail rate of presented					
Std 4 fail rate of total Std 4					
Total Std 5	83	107	97	119	81
Males Std 5	41	50	46	67	46
Females Std 5	42	57	51	52	35
Std 5 pass rate of presented					
Std 5 pass rate of total Std 5					
Std 5 fail rate of presented					
Std 5 fail rate of total Std 5					
Total Std 6	74	86	92	59	71
Males Std 6	37	40	47	24	35
Females Std 6	37	46	45	35	36
Std 6 pass rate of presented					
Std 6 pass rate of total Std 6					
Std 6 fail rate of presented					
Std 6 fail rate of total Std 6					
Total above Std 6	65	52	57	57	41
Males above Std 6	33	24	28	32	20
Females above Std 6	32	28	29	25	21

Appendix 9.4 – Westland Education District observed and calculated expected pupil numbers for Standards 4, 5, and 6 (ob = observed; ex = expected; S3 to S4 = {S4 ob – previous year S3 ob}/ previous year S3 ob, as a %), this is the change in pupil numbers in successive years for successive Standards levels expressed as a percentage of the lower level; similarly for S4 to S5 and S5 to S6)

	1880	*1881*	*1882*	*1883*	*1884*	*1885*	*1886*	*1887*	*1888*	*1889*	*1890*	*1891*	*1892*
S3 ob	412	481	494	431	508	288	267	265	230	207	244	268	244
S4 ob	325	352	355	369	383	232	230	231	242	222	180	204	216
S3 pass rate	0.88	0.74	0.6	0.806	0.713	0.774	0.762	0.795	0.767	0.766	0.806	0.684	0.714
S4 fail rate	0.13	0.34	0.306	0.158	0.292	0.146	0.189	0.163	0.253	0.264	0.193	0.345	0.276
S4 ex		404.81	475.62	405.03	405.69	474.04	256.78	246.92	248.33	237.64	217.17	231.40	253.69
S3 to S4		-14.5631	-26.1954	-25.3036	-11.1369	-54.3307	-20.1389	-13.4831	-8.6792	-3.4783	-13.0435	-16.3934	-19.4030
S4 Ob/Ex		0.8695	0.7464	0.9110	0.9441	0.4894	0.8957	0.9355	0.9745	0.9342	0.8288	0.8816	0.8514
S5 ob	137	210	228	230	242	183	205	221	182	162	171	177	181
S4 pass rate	0.87	0.66	0.694	0.842	0.708	0.854	0.811	0.837	0.747	0.736	0.807	0.655	0.724
S5 fail rate	0.05	0.46	0.238	0.143	0.247	0.128	0.313	0.291	0.257	0.22	0.227	0.607	0.333
S5 ex		289.60	328.92	300.63	343.59	330.94	221.55	250.70	257.66	227.55	199.03	184.08	241.06
S4 to S5		-35.3846	-35.2273	-35.2113	-34.4173	-52.2193	-11.6379	-3.9130	-21.2121	-33.0579	-22.9730	-1.6667	-11.2745
S5 Ob/Ex		0.7251	0.6932	0.7650	0.7043	0.5530	0.9253	0.8815	0.7064	0.7119	0.8592	0.9616	0.7509
S6 ob	67	84	65	144	146	111	105	133	140	114	103	90	119
S5 pass rate	0.95	0.54	0.762	0.857	0.753	0.872	0.687	0.709	0.743	0.78	0.773	0.393	0.667
S6 fail rate	0.02	0.09	0.07	0.3	0.287	0.163	0.333	0.254	0.25	0.152	0.216	0.512	0.304
S6 ex		131.49	120.96	178.29	240.31	224.13	177.67	175.80	190.47	170.23	143.69	154.43	115.64
S5 to S6		-38.6861	-69.0476	-36.8421	-36.5217	-54.1322	-42.6230	-35.1220	-36.6516	-37.3626	-36.4198	-47.3684	-32.7684
S6 Ob/Ex		0.6388	0.5374	0.8077	0.6075	0.4953	0.5910	0.7565	0.7350	0.6697	0.7168	0.5828	1.0290

Appendix 9.4 continued

	1893	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*	*1901*	*1902*	*1903*	*1904*
S3 ob	235	199	207	180	198	181	162	154	119	128	104	104
S4 ob	227	213	205	204	169	181	175	157	168	141	125	112
S3 pass rate	0.864	0.843	0.876	0.859	0.881	0.828	0.905	0.858	0.94	0.866	0.903	
S4 fail rate	0.193	0.123	0.175	0.176	0.11	0.232	0.126	0.172	0.206	0.265	0.159	
S4 ex	233.83	246.85	193.96	217.21	190.52	193.03	191.86	168.66	159.14	146.47	148.21	113.79
S3 to S4	-6.9672	-9.3617	3.0151	-1.4493	-6.1111	-8.5859	-3.3149	-3.0864	9.0909	18.4874	-2.3438	7.6923
S4 Ob/Ex	0.9708	0.8629	1.0569	0.9392	0.8870	0.9377	0.9121	0.9309	1.0557	0.9627	0.8434	0.9843
S5 ob	187	198	191	196	175	135	141	158	133	104	118	103
S4 pass rate	0.807	0.877	0.825	0.824	0.89	0.768	0.874	0.828	0.794	0.735	0.841	
S5 fail rate	0.164	0.181	0.253	0.176	0.13	0.186	0.1	0.12	0.14	0.1	0.219	
S5 ex	216.66	213.86	222.64	217.45	202.59	173.16	164.12	167.05	148.96	152.01	114.04	130.97
S4 to S5	-13.4259	-12.7753	-10.3286	-4.3902	-14.2157	-20.1183	-22.0994	-9.7143	-15.2866	-38.0952	-16.3121	-17.6000
S5 Ob/Ex	0.8631	0.9259	0.8579	0.9014	0.8638	0.7796	0.8591	0.9458	0.8929	0.6842	1.0348	0.7865
S6 ob	115	123	125	142	148	133	121	129	109	106	95	92
S5 pass rate	0.836	0.819	0.747	0.824	0.87	0.814	0.9	0.88	0.86	0.9	0.781	
S6 fail rate	0.198	0.115	0.122	0.115	0.078	0.186	0.16	0.133	0.141	0.184	0.269	
S6 ex	156.90	179.10	176.31	157.93	177.83	163.79	134.63	146.26	156.20	129.75	113.10	117.71
S5 to S6	-36.4641	-34.2246	-36.8687	-25.6545	-24.4898	-24.0000	-10.3704	-8.5106	-31.0127	-20.3008	-8.6538	-22.0339
S6 Ob/Ex	0.7329	0.6868	0.7090	0.8991	0.8322	0.8120	0.8988	0.8820	0.6978	0.8170	0.8399	0.7816

Appendix 10.1 – North Canterbury Education District raw age data and gender ratios for 7-9 y age groups (source E1 reports)

		1879	*1880*	*1881*	*1882*	*1883*	*1884*	*1885*	*1886*	*1887*	*1888*	*1889*
Under 5 y	**Males**	355	370									
	Females	344	371									
	Total	699	741									
5-6 y	**Males**	1829	1975	2093	2232	2175	2194	2188	2134	2068	2031	2145
	Females	1543	1744	1782	1960	2067	2002	2066	1941	1785	1836	1907
	Total	3372	3719	3875	4192	4242	4196	4254	4075	3853	3867	4052
7-9 y	**Males**	2813	2951	2970	3163	3539	3597	3753	3704	3771	3854	3871
	Females	2579	2710	2799	2882	3106	3277	3412	3485	3702	3678	3648
	Total	5392	5661	5769	6045	6645	6874	7165	7189	7473	7532	7519
10-12 y	**Males**	2221	2448	2471	2626	2614	2770	2863	3128	3352	3430	3410
	Females	2093	2271	2271	2383	2460	2537	2656	2882	3019	3198	3269
	Total	4314	4719	4742	5009	5074	5307	5519	6010	6371	6628	6679
13-14 y	**Males**	655	741	720	756	797	892	935	954	1057	1065	1129
	Females	601	654	683	710	778	800	889	890	949	961	986
	Total	1256	1395	1403	1466	1575	1692	1824	1844	2006	2026	2115
Over 15 y	**Males**	99	107	117	93	119	118	139	148	161	149	148
	Females	98	95	141	102	142	145	187	196	181	186	196
	Total	197	202	258	195	261	263	326	344	342	335	344
All ages	**Males**	7972	8592	8371	8870	9244	9571	9878	10068	10409	10529	10703
	Females	7258	7845	7676	8037	8553	8761	9210	9394	9636	9859	10006
	Total	15230	16437	16047	16907	17797	18332	19088	19462	20045	20388	20709
All ages 5 y & over	**Males 5 y & over**	7617	8222	8371	8870	9244	9571	9878	10068	10409	10529	10703
	Females 5 y & over	6914	7474	7676	8037	8553	8761	9210	9394	9636	9859	10006
	Total 5 y & over	14531	15696	16047	16907	17797	18332	19088	19462	20045	20388	20709
All 5-15 y	**Males 5-15 y**	7518	8115	8254	8777	9125	9453	9739	9920	10248	10380	10555
	Females 5-15 y	6816	7379	7535	7935	8411	8616	9023	9198	9455	9673	9810
	Total 5-15 y	14334	15494	15789	16712	17536	18069	18762	19118	19703	20053	20365

Appendix 10.1 continued (2)

		1890	*1891*	*1892*	*1893*	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	2048	2010	2061	2032	1929	2015	1984	1947	1998	2046	1931
	Females	1929	1842	1848	1903	1850	1862	1943	1866	1830	1842	1726
	Total	3977	3852	3909	3935	3779	3877	3927	3813	3828	3888	3657
7-9 y	**Males**	3874	3849	3847	3846	3793	3797	3676	3663	3573	3486	3455
	Females	3661	3628	3603	3537	3485	3416	3440	3403	3381	3298	3321
	Total	7535	7477	7450	7383	7278	7213	7116	7066	6954	6784	6776
10-12 y	**Males**	3638	3634	3638	3639	3742	3767	3782	3713	3647	3508	3525
	Females	3412	3353	3431	3397	3510	3484	3470	3402	3312	3288	3231
	Total	7050	6987	7069	7036	7252	7251	7252	7115	6959	6796	6756
13-14 y	**Males**	1199	1205	1248	1278	1357	1314	1391	1311	1275	1268	1209
	Females	1104	1150	1131	1183	1223	1289	1213	1194	1267	1137	1116
	Total	2303	2355	2379	2461	2580	2603	2604	2505	2542	2405	2325
Over 15 y	**Males**	182	183	198	174	189	218	173	155	148	133	135
	Females	193	204	216	240	236	206	228	174	188	212	181
	Total	375	387	414	414	425	424	401	329	336	345	316
All ages	**Males**	10941	10881	10992	10969	11010	11111	11006	10789	10641	10441	10255
	Females	10299	10177	10238	10260	10304	10257	10294	10039	9978	9777	9595
	Total	21240	21058	21230	21229	21314	21368	21300	20828	20619	20218	19850
All ages 5 y & over	**Males 5 y & over**	10941	10881	10992	10969	11010	11111	11006	10789	10641	10441	10255
	Females 5 y & over	10299	10177	10238	10260	10304	10257	10294	10039	9978	9777	9595
	Total 5 y & over	21240	21058	21230	21229	21314	21368	21300	20828	20619	20218	19850
All 5-15 y	**Males 5-15 y**	10759	10698	10794	10795	10821	10893	10833	10634	10493	10308	10120
	Females 5-15 y	10106	9973	10022	10020	10068	10051	10066	9865	9790	9565	9414
	Total 5-15 y	20865	20671	20816	20815	20889	20944	20899	20499	20283	19873	19534

Appendix 10.1 continued (3)

		1901	*1902*	*1903*	*1904*	*1905*	*1906*	*1907*	*1908*	*1909*	*1910*	*1911*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	1923	1930	1915	1839	1858	1981	1955	2082	2149	2289	2359
	Females	1788	1748	1784	1724	1789	1835	1799	1878	1939	2105	2155
	Total	3711	3678	3699	3563	3647	3816	3754	3960	4088	4394	4514
7-9 y	**Males**	3462	3452	3465	3409	3387	3280	3392	3473	3631	3660	3790
	Females	3202	3130	3242	3260	3201	3129	3162	3283	3369	3381	3521
	Total	6664	6582	6707	6669	6588	6409	6554	6756	7000	7041	7311
10-12 y	**Males**	3451	3371	3350	3341	3377	3406	3275	3301	3271	3345	3422
	Females	3241	3193	3194	3111	3120	3173	3125	3152	3081	3137	3213
	Total	6692	6564	6544	6452	6497	6579	6400	6453	6352	6482	6635
13-14 y	**Males**	1191	1188	1232	1259	1241	1247	1247	1325	1467	1420	1420
	Females	1086	1130	1106	1135	1082	1064	1043	1133	1238	1259	1291
	Total	2277	2318	2338	2394	2323	2311	2290	2458	2705	2679	2711
Over 15 y	**Males**	131	136	138	150	178	144	130	203	236	214	207
	Females	163	173	153	150	152	144	154	173	166	175	173
	Total	294	309	291	300	330	288	284	376	402	389	380
All ages	**Males**	10158	10077	10100	9998	10041	10058	9999	10384	10754	10928	11198
	Females	9480	9374	9479	9380	9344	9345	9283	9619	9793	10057	10353
	Total	19638	19451	19579	19378	19385	19403	19282	20003	20547	20985	21551
All ages 5 y & over	**Males 5 y & over**	10158	10077	10100	9998	10041	10058	9999	10384	10754	10928	11198
	Females 5 y & over	9480	9374	9479	9380	9344	9345	9283	9619	9793	10057	10353
	Total 5 y & over	19638	19451	19579	19378	19385	19403	19282	20003	20547	20985	21551
All 5-15 y	**Males 5-15 y**	10027	9941	9962	9848	9863	9914	9869	10181	10518	10714	10991
	Females 5-15 y	9317	9201	9326	9230	9166	9201	9129	9446	9627	9882	10180
	Total 5-15 y	19344	19142	19288	19078	19029	19115	18998	19627	20145	20596	21171

Appendix 10.2 – North Canterbury Education District gender age ratios for 5-6 y age groups and 13-14 y age group to 7-9 y age group (source E1 reports)

Males	***1879***	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***
5-6 y/7-9 y	0.6502	0.6693	0.7047	0.7057	0.6146	0.6100	0.5830	0.5761	0.5484	0.5270	0.5541	0.5287	0.5222	0.5357	0.5283	0.5086	0.5307
13-14 y/7-9 y	0.2328	0.2511	0.2424	0.2390	0.2252	0.2480	0.2491	0.2576	0.2803	0.2763	0.2917	0.3095	0.3131	0.3244	0.3323	0.3578	0.3461
Females	***1879***	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***
5-6 y/7-9 y	0.5983	0.6435	0.6367	0.6801	0.6655	0.6109	0.6055	0.5570	0.4822	0.4992	0.5228	0.5269	0.5077	0.5129	0.5380	0.5308	0.5451
13-14 y/7-9 y	0.2330	0.2413	0.2440	0.2464	0.2505	0.2441	0.2606	0.2554	0.2563	0.2613	0.2703	0.3016	0.3170	0.3139	0.3345	0.3509	0.3773

Males	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.5397	0.5315	0.5592	0.5869	0.5589	0.5555	0.5591	0.5527	0.5395	0.5486	0.6040	0.5764	0.5995	0.5918	0.6254	0.6224
13-14 y/7-9 y	0.3784	0.3579	0.3568	0.3637	0.3499	0.3440	0.3441	0.3556	0.3693	0.3664	0.3802	0.3676	0.3815	0.4040	0.3880	0.3747
Females	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.5648	0.5483	0.5413	0.5585	0.5197	0.5584	0.5585	0.5503	0.5288	0.5589	0.5864	0.5689	0.5720	0.5755	0.6226	0.6120
13-14 y/7-9 y	0.3526	0.3509	0.3747	0.3448	0.3360	0.3392	0.3610	0.3411	0.3482	0.3380	0.3400	0.3299	0.3451	0.3675	0.3724	0.3667

Appendix 10.3 – North Canterbury Education District raw Standards level data and pass/fail rates (source E1 reports)

	1879	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
Total no.	14531	15696	16051	16907	17797	18332	19088	19462	20045	20388	20709	21240	21058	21230
Total males	7617	8222	8373	8870	9244	9571	9878	10068	10409	10529	10703	10941	10881	10992
Total females	6914	7474	7678	8037	8553	8761	9210	9394	9636	9859	10006	10299	10177	10238
Total below Std 1	4259	5167	4694	5292	5913	6142	5488	5821	5476	5486	5699	5615	5111	5069
Males below Std 1	2310	2783	2508	2841	3168	3302	2943	3081	2919	2923	3064	2927	2713	2680
Females below Std 1	1949	2384	2186	2451	2745	2840	2545	2740	2557	2563	2635	2688	2398	2389
Below Std 1 pass rate	n/a													
Below Std 1 fail rate	n/a													
Total Std 1	3600	3069	3163	3057	3090	3068	3214	3248	3187	3143	3170	3058	3034	2861
Males Std 1	1819	1539	1679	1662	1606	1589	1634	1658	1657	1642	1654	1616	1592	1494
Females Std 1	1781	1530	1484	1395	1484	1479	1580	1590	1530	1501	1516	1442	1442	1367
Std 1 pass rate of presented	n/a	0.880/0.820	0.810/0.900	0.920	0.950	0.933	0.937	0.850	0.900	0.918	0.935	0.946	0.963	0.952
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	n/a	0.120/0.180	0.190/0.100	0.080	0.050	0.067	0.063	0.150	0.100	0.082	0.065	0.054	0.037	0.048
Std 1 fail rate of total Std 1														
Total Std 2	2683	2926	2774	2781	2894	2882	3052	2938	3147	3141	3091	3250	3075	2971
Males Std 2	1380	1489	1390	1433	1496	1452	1566	1533	1561	1584	1558	1654	1579	1556
Females Std 2	1303	1437	1384	1348	1398	1430	1486	1405	1586	1557	1533	1596	1496	1415
Std 2 pass rate of presented	n/a	0.825/0.720	0.770/0.700	0.850	0.840	0.859	0.808	0.791	0.821	0.865	0.882	0.913	0.926	0.941
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented	n/a	0.175/0.280	0.230/0.300	0.150	0.160	0.141	0.192	0.209	0.179	0.135	0.118	0.087	0.074	0.059
Std 2 fail rate of total Std 2														
Total Std 3	2444	2720	2929	2926	2950	2858	3296	3351	3459	3371	3412	3449	3454	3405
Males Std 3	1265	1384	1485	1458	1492	1496	1689	1703	1822	1686	1709	1764	3075	1720
Females Std 3	1179	1336	1444	1468	1458	1362	1697	1648	1637	1685	1703	1685	1754	1685
Std 3 pass rate of presented	n/a	0.55/0.48	0.662/0.600	0.600	0.740	0.748	0.596	0.604	0.656	0.703	0.737	0.747	0.782	0.816
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented	n/a	0.450/0.520	0.338/0.400	0.400	0.260	0.252	0.404	0.396	0.344	0.297	0.263	0.253	0.218	0.184
Std 3 fail rate of total Std 3														

Total Std 4	1452	1676	1562	1873	1792	1963	2089	2148	2430	2580	2626	2791	2886	3049
Males Std 4	732	897	821	964	927	1001	1064	1100	1194	1333	1319	1383	1467	1562
Females Std 4	720	779	741	909	865	962	1025	1048	1236	1247	1307	1408	1419	1487
Std 4 pass rate of presented	n/a	0.436/0.460	0.574/0.530	0.560	0.690	0.701	0.671	0.622	0.643	0.707	0.710	0.717	0.780	0.760
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented	n/a	0.564/0.540	0.426/0.470	0.440	0.310	0.299	0.329	0.378	0.357	0.293	0.290	0.283	0.220	0.240
Std 4 fail rate of total Std 4														
Total Std 5	620	630	698	733	835	984	1258	1253	1451	1682	1632	1846	2038	2117
Males Std 5	344	336	355	376	403	517	634	647	787	839	869	958	1021	1085
Females Std 5	276	294	343	357	432	467	624	606	664	843	763	888	1017	1032
Std 5 pass rate of presented	n/a	0.557/0.490	0.705/0.580	0.500	0.760	0.677	0.573	0.547	0.598	0.638	0.700	0.663	0.726	0.780
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented	n/a	0.443/0.510	0.295/0.420	0.500	0.240	0.323	0.427	0.453	0.402	0.362	0.300	0.337	0.274	0.320
Std 5 fail rate of total Std 5														
Total Std 6	55	220	198	218	279	359	488	529	656	716	807	913	1078	1251
Males Std 6	113	144	111	120	133	174	247	268	351	398	409	489	584	652
Females Std 6	42	76	87	98	146	185	241	261	305	318	398	424	494	599
Std 6 pass rate of presented	n/a	0.461/0.500	0.732/0.580	0.640	0.770	0.772	0.744	0.665	0.760	0.769	0.769	0.691	0.786	0.845
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented	n/a	0.539/0.500	0.268/0.420	0.360	0.230	0.228	0.256	0.335	0.240	0.231	0.231	0.309	0.214	0.155
Std 6 fail rate of total Std 6														
Total above Std 6	17	29	33	27	44	76	203	174	239	269	272	318	382	507
Males above Std 6	9	20	24	16	19	40	101	78	118	124	121	150	171	243
Females above Std 6	8	9	9	11	25	36	102	96	121	145	151	168	211	264

Appendix 10.3 continued (2)

	1893	***1894***	***1895***	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***
Total no.	21229	21314	21368	21300	20828	20619	20218	19850	19638	19451	19579	19378	19385	19403
Total males	10969	11010	11111	11006	10789	10641	10441	10255	10158	10077	10100	9998	10041	10058
Total females	10260	10304	10257	10294	10039	9978	9777	9595	9480	9374	9479	9380	9344	9345
Total below Std 1	4821	4648	4624	4709	4614	4733	4894	4923	5044	5115	5202	5179	5307	5489
Males below Std 1	2560	2432	2438	2447	2427	2521	2580	2642	2661	2723	2722	2667	2758	2884
Females below Std 1	2261	2216	2186	2262	2187	2212	2314	2281	2383	2392	2480	2512	2549	2605
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	2871	2816	2707	2598	2538	2407	2303	2261	2245	2266	2335	2287	2290	2332
Males Std 1	1502	1490	1443	1344	1331	1231	1189	1159	1208	1172	1225	1204	1176	1181
Females Std 1	1369	1326	1264	1254	1207	1176	1114	1102	1037	1094	1110	1083	1114	1151
Std 1 pass rate of presented	0.961	0.960	0.962	0.966	0.978	0.977	0.971	0.948	0.967	0.932	0.948			
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	0.039	0.040	0.038	0.034	0.022	0.023	0.029	0.052	0.033	0.068	0.052			
Std 1 fail rate of total Std 1														
Total Std 2	2868	2812	2769	2679	2593	2476	2372	2365	2317	2249	2371	2374	2359	2293
Males Std 2	1478	1418	1435	1401	1320	1302	1222	1210	1191	1205	1200	1242	1207	1168
Females Std 2	1390	1394	1334	1278	1273	1174	1150	1155	1126	1044	1171	1132	1152	1125
Std 2 pass rate of presented	0.945	0.926	0.928	0.930	0.931	0.932	0.927	0.896	0.916	0.908	0.894			
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented	0.055	0.074	0.072	0.070	0.069	0.068	0.073	0.104	0.084	0.092	0.106			
Std 2 fail rate of total Std 2														
Total Std 3	3325	3331	3277	3197	3040	3001	2869	2698	2606	2522	2511	2547	2540	2481
Males Std 3	1708	1700	1667	1626	1577	1540	1514	1405	1320	1276	1337	1268	1329	1311
Females Std 3	1617	1631	1610	1571	1463	1461	1355	1293	1286	1246	1174	1279	1211	1170
Std 3 pass rate of presented	0.820	0.768	0.772	0.800	0.805	0.769	0.800	0.786	0.826	0.832	0.804			
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented	0.180	0.232	0.228	0.200	0.195	0.231	0.200	0.214	0.174	0.168	0.196			
Std 3 fail rate of total Std 3														

Total Std 4	3161	3147	3090	3173	3201	2939	2810	2726	2657	2560	2493	2435	2380	2432
Males Std 4	1595	1610	1554	1613	1623	1493	1412	1402	1358	1282	1246	1326	1192	1243
Females Std 4	1566	1537	1536	1560	1578	1446	1398	1324	1299	1278	1247	1109	1188	1189
Std 4 pass rate of presented	0.762	0.733	0.784	0.749	0.737	0.768	0.786	0.801	0.806	0.799	0.783			
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented	0.238	0.267	0.216	0.251	0.263	0.232	0.214	0.199	0.194	0.201	0.217			
Std 4 fail rate of total Std 4														
Total Std 5	2217	2379	2490	2460	2458	2545	2444	2401	2291	2358	2279	2165	2108	2116
Males Std 5	1145	1239	1326	1281	1268	1303	1284	1214	1229	1229	1162	1060	1146	1080
Females Std 5	1072	1140	1164	1179	1190	1242	1160	1187	1062	1129	1117	1105	962	1036
Std 5 pass rate of presented	0.805	0.751	0.784	0.738	0.748	0.731	0.761	0.764	0.784	0.768	0.743			
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented	0.195	0.249	0.216	0.262	0.252	0.269	0.239	0.236	0.216	0.232	0.257			
Std 5 fail rate of total Std 5														
Total Std 6	1406	1513	1651	1657	1660	1711	1739	1704	1728	1654	1623	1592	1602	1579
Males Std 6	737	810	894	886	869	896	900	887	867	892	890	836	804	832
Females Std 6	669	703	757	771	791	815	839	817	861	762	733	756	798	747
Std 6 pass rate of presented	0.850	0.836	0.866	0.833	0.839	0.822	0.829	0.819	0.822	0.806	0.787			
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented	0.150	0.164	0.134	0.167	0.161	0.178	0.171	0.181	0.178	0.194	0.213			
Std 6 fail rate of total Std 6														
Total above Std 6	560	668	760	827	724	807	787	772	750	727	765	799	799	681
Males above Std 6	244	311	354	408	374	355	340	336	324	298	318	395	429	359
Females above Std 6	316	357	406	419	350	452	447	436	426	429	447	404	370	322

Appendix 10.3 continued (3)

	1907	***1908***	***1909***	***1910***	***1911***
Total no.	19282	20003	20547	20985	21551
Total males	9999	10384	10754	10928	11198
Total females	9283	9619	9793	10057	10353
Total below Std 1	5576	6799	7380	7665	7750
Males below Std 1	2949	3607	3902	4056	4094
Females below Std 1	2627	3192	3478	3609	3656
Below Std 1 pass rate					
Below Std 1 fail rate					
Total Std 1	2270	2425	2481	2533	2685
Males Std 1	1179	1241	1301	1305	1401
Females Std 1	1091	1184	1180	1228	1284
Std 1 pass rate of presented					
Std 1 pass rate of total Std 1					
Std 1 fail rate of presented					
Std 1 fail rate of total Std 1					
Total Std 2	2361	2313	2458	2459	2546
Males Std 2	1199	1185	1290	1289	1303
Females Std 2	1162	1128	1168	1170	1243
Std 2 pass rate of presented					
Std 2 pass rate of total Std 2					
Std 2 fail rate of presented					
Std 2 fail rate of total Std 2					
Total Std 3	2361	2452	2490	2474	2567
Males Std 3	1198	1244	1250	1282	1338
Females Std 3	1163	1208	1240	1192	1229
Std 3 pass rate of presented					
Std 3 pass rate of total Std 3					
Std 3 fail rate of presented					
Std 3 fail rate of total Std 3					

Total Std 4	2423	2284	2245	2328	2324
Males Std 4	1273	1173	1176	1168	1196
Females Std 4	1150	1111	1069	1160	1128
Std 4 pass rate of presented					
Std 4 pass rate of total Std 4					
Std 4 fail rate of presented					
Std 4 fail rate of total Std 4					
Total Std 5	2054	1984	1928	1947	2017
Males Std 5	1032	1025	998	994	1021
Females Std 5	1022	959	930	953	996
Std 5 pass rate of presented					
Std 5 pass rate of total Std 5					
Std 5 fail rate of presented					
Std 5 fail rate of total Std 5					
Total Std 6	1605	1251	1217	1221	1312
Males Std 6	833	635	639	651	655
Females Std 6	772	616	578	570	657
Std 6 pass rate of presented					
Std 6 pass rate of total Std 6					
Std 6 fail rate of presented					
Std 6 fail rate of total Std 6					
Total above Std 6	632	495	348	358	350
Males above Std 6	336	274	198	183	190
Females above Std 6	296	221	150	175	160

Appendix 10.4 – North Canterbury Education District observed and calculated expected pupil numbers for Standards 4, 5, and 6 (ob = observed; ex = expected; S3 to S4 = {S4 ob – previous year S3 ob}/ previous year S3 ob, as a %), this is the change in pupil numbers in successive years for successive Standards levels expressed as a percentage of the lower level; similarly for S4 to S5 and S5 to S6)

	1880	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
S3 ob	2720	2929	2926	2950	2858	3296	3351	3459	3371	3412	3449	3454	3405
S4 ob	1676	1562	1873	1792	1963	2089	2148	2430	2580	2626	2791	2886	3049
S3 pass rate	0.52	0.63	0.6	0.74	0.748	0.596	0.604	0.656	0.703	0.737	0.747	0.782	0.816
S4 fail rate	0.55	0.45	0.44	0.31	0.299	0.329	0.378	0.357	0.293	0.29	0.283	0.22	0.24
S4 ex		2336.20	2548.17	2579.72	2738.52	2724.72	2651.70	2835.95	3136.61	3125.75	3276.18	3366.26	3335.95
S3 to S4		-42.5735	-36.0533	-38.7560	-33.4576	-26.9069	-34.8301	-27.4843	-25.4120	-22.1003	-18.2005	-16.3236	-11.7255
S4 Ob/Ex		0.6686	0.7350	0.6946	0.7168	0.7667	0.8100	0.8569	0.8225	0.8401	0.8519	0.8573	0.9140
S5 ob	630	698	733	835	984	1258	1253	1451	1682	1632	1846	2038	2117
S4 pass rate	0.45	0.55	0.56	0.69	0.701	0.671	0.622	0.643	0.707	0.71	0.717	0.78	0.76
S5 fail rate	0.48	0.36	0.5	0.24	0.323	0.427	0.453	0.402	0.362	0.3	0.337	0.274	0.32
S5 ex		1056.60	1110.38	1415.38	1436.88	1693.90	1938.89	1903.67	2145.79	2432.94	2354.06	2623.25	2809.49
S4 to S5		-58.3532	-53.0730	-55.4191	-45.0893	-35.9144	-40.0191	-32.4488	-30.7819	-36.7442	-29.7030	-26.9796	-26.6459
S5 Ob/Ex		0.6606	0.6601	0.5899	0.6848	0.7427	0.6462	0.7622	0.7839	0.6708	0.7842	0.7769	0.7535
S6 ob	220	198	218	279	359	488	529	656	716	807	913	1078	1251
S5 pass rate	0.52	0.64	0.5	0.76	0.677	0.573	0.547	0.598	0.638	0.7	0.663	0.726	0.78
S6 fail rate	0.52	0.34	0.36	0.23	0.228	0.256	0.335	0.24	0.231	0.231	0.309	0.214	0.155
S6 ex		442.00	514.04	444.98	698.77	748.02	845.76	862.61	1025.14	1238.51	1328.82	1506.02	1710.28
S5 to S6		-68.5714	-68.7679	-61.9372	-57.0060	-50.4065	-57.9491	-47.6457	-50.6547	-52.0214	-44.0564	-41.6035	-38.6163
S6 Ob/Ex		0.4480	0.4241	0.6270	0.5138	0.6524	0.6255	0.7605	0.6984	0.6516	0.6871	0.7158	0.7315

Appendix 10.4 continued

	1893	***1894***	***1895***	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***
S3 ob	3325	3331	3277	3197	3040	3001	2869	2698	2606	2522	2511	2547
S4 ob	3161	3147	3090	3173	3201	2939	2810	2726	2657	2560	2493	2435
S3 pass rate	0.82	0.768	0.772	0.8	0.805	0.769	0.8	0.786	0.826	0.832	0.804	
S4 fail rate	0.238	0.267	0.216	0.251	0.263	0.232	0.214	0.199	0.194	0.201	0.217	0.217
S4 ex	3510.24	3478.82	3398.46	3197.28	3354.02	3289.06	2989.62	2896.54	2663.10	2668.01	2612.86	2559.83
S3 to S4	-7.1659	-5.3534	-7.2351	-3.1736	0.1251	-3.3224	-6.3645	-4.9843	-1.5196	-1.7652	-1.1499	-3.0267
S4 Ob/Ex	0.9005	0.9046	0.9092	0.9924	0.9544	0.8936	0.9399	0.9411	0.9977	0.9595	0.9541	0.9512
S5 ob	2217	2379	2490	2460	2458	2545	2444	2401	2291	2358	2279	2165
S4 pass rate	0.762	0.733	0.784	0.749	0.737	0.768	0.786	0.801	0.806	0.799	0.783	
S5 fail rate	0.195	0.249	0.216	0.262	0.252	0.269	0.239	0.236	0.216	0.232	0.257	
S5 ex	2994.68	2841.00	2899.12	2960.40	3021.10	2978.55	2941.76	2792.78	2750.16	2636.40	2592.50	2537.72
S4 to S5	-27.2876	-24.7390	-20.8770	-20.3883	-22.5339	-20.4936	-16.8425	-14.5552	-15.9574	-11.2533	-10.9766	-13.1568
S5 Ob/Ex	0.7403	0.8374	0.8589	0.8310	0.8136	0.8544	0.8308	0.8597	0.8330	0.8944	0.8791	0.8531
S6 ob	1406	1513	1651	1657	1660	1711	1739	1704	1728	1654	1623	1592
S5 pass rate	0.805	0.751	0.784	0.738	0.748	0.731	0.761	0.764	0.784	0.768	0.743	
S6 fail rate	0.15	0.164	0.134	0.167	0.161	0.178	0.171	0.181	0.178	0.194	0.213	
S6 ex	1845.17	1995.59	2034.76	2173.39	2092.20	2105.84	2164.95	2157.25	2142.79	2103.73	2131.82	2039.00
S5 to S6	-33.5853	-31.7546	-30.6011	-33.4538	-32.5203	-30.3906	-31.6699	-30.2782	-28.0300	-27.8045	-31.1705	-30.1448
S6 Ob/Ex	0.7620	0.7582	0.8114	0.7624	0.7934	0.8125	0.8033	0.7899	0.8064	0.7862	0.7613	0.7808

Appendix 11.1 – South Canterbury Education District raw age data and gender ratios for 7-9 y age groups (source E1 reports)

		1879	*1880*	*1881*	*1882*	*1883*	*1884*	*1885*	*1886*	*1887*	*1888*	*1889*
Under 5 y	**Males**	71	84									
	Females	67	71									
	Total	138	155									
5-6 y	**Males**	387	393	450	535	512	531	501	478	433	442	495
	Females	387	390	455	516	443	454	449	443	435	444	425
	Total	774	783	905	1051	955	985	950	921	868	856	920
7-9 y	**Males**	603	634	624	662	745	773	820	895	909	949	877
	Females	524	579	577	643	735	737	780	770	821	883	904
	Total	1127	1213	1201	1305	1480	1510	1600	1665	1730	1832	1781
10-12 y	**Males**	402	557	561	571	568	582	640	660	769	759	831
	Females	365	480	495	528	515	548	587	643	714	747	729
	Total	767	1037	1056	1099	1083	1130	1227	1303	1483	1506	1560
13-14 y	**Males**	188	130	163	179	168	202	181	226	211	210	238
	Females	169	146	161	164	166	185	172	188	204	217	237
	Total	357	276	324	343	334	387	353	414	415	427	475
Over 15 y	**Males**	23	20	23	26	20	32	28	29	37	42	33
	Females	17	22	22	29	48	23	45	37	51	40	35
	Total	40	42	45	55	68	55	73	66	88	82	68
All ages	**Males**	1674	1818	1821	1973	2013	2120	2170	2288	2359	2402	2474
	Females	1529	1688	1710	1880	1907	1947	2033	2081	2225	2301	2330
	Total	3203	3506	3531	3853	3920	4067	4203	4369	4584	4703	4804
All ages over 5 y	**Males over 5 y**	1603	1734	1821	1973	2013	2120	2170	2288	2359	2402	2474
	Females over 5 y	1462	1617	1710	1880	1907	1947	2033	2081	2225	2301	2330
	Total over 5 y	3065	6376	3531	3853	3920	4067	4203	4369	4584	4703	4804
All 5-15 y	**Males 5-15 y**	1580	1714	1798	1947	1993	2088	2142	2259	2322	2360	2441
	Females 5-15 y	1445	1595	1688	1851	1855	1924	1988	2044	2174	2261	2295
	Total 5-15 y	3025	3309	3486	3798	3852	4012	4130	4303	4496	4621	4736

Appendix 11.1 continued (2)

		1890	*1891*	*1892*	*1893*	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	512	476	497	503	473	521	547	521	480	494	488
	Females	438	481	509	487	485	448	445	447	463	463	441
	Total	950	957	1006	990	958	969	992	968	6058	957	929
7-9 y	**Males**	885	935	907	941	917	962	937	945	942	917	915
	Females	898	862	841	891	877	938	890	858	819	784	824
	Total	1783	1797	1748	1832	1794	1900	1827	1803	1761	1701	1739
10-12 y	**Males**	883	858	850	836	881	894	895	883	917	915	961
	Females	754	838	832	815	795	802	864	841	866	865	820
	Total	1637	1696	1682	1651	1676	1696	1759	1724	1783	1784	1781
13-14 y	**Males**	227	275	296	312	295	313	325	315	336	313	310
	Females	265	237	271	271	298	343	302	305	277	288	293
	Total	492	512	567	583	593	656	627	620	613	601	603
Over 15 y	**Males**	33	27	43	52	64	50	51	47	45	52	38
	Females	35	55	64	59	56	60	66	49	52	44	58
	Total	68	82	107	111	120	110	117	96	97	96	96
All ages	**Males**	2540	2571	2593	2644	2630	2740	2755	2711	2720	2695	2712
	Females	2390	2473	2517	2523	2511	2591	2567	2500	2477	2444	2436
	Total	4930	5044	5110	5167	5141	5331	5322	5211	5197	5139	5148
All ages over 5 y	**Males over 5 y**	2540	2571	2593	2644	2630	2740	2755	2711	2720	2695	2712
	Females over 5 y	2390	2473	2517	2523	2511	2591	2567	2500	2477	2444	2436
	Total over 5 y	4930	5044	5110	5167	5141	5331	5322	5211	5197	5139	5148
All 5-15 y	**Males 5-15 y**	2507	2544	2550	2592	2566	2690	2806	2664	2675	2643	2674
	Females 5-15 y	2355	2418	2453	2464	2455	2531	2501	2451	2425	2400	2378
	Total 5-15 y	4862	4962	5003	5056	5021	5221	5307	5115	5100	5043	5052

Appendix 11.1 continued (3)

		1901	*1902*	*1903*	*1904*	*1905*	*1906*	*1907*	*1908*	*1909*	*1910*	*1911*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	482	483	443	468	511	547	516	544	535	564	577
	Females	417	474	464	448	448	463	480	461	480	573	586
	Total	899	957	907	916	959	1010	996	1005	1015	1137	1163
7-9 y	**Males**	875	882	868	915	890	879	909	940	996	994	985
	Females	826	795	809	821	886	846	823	843	904	898	896
	Total	1701	1677	1677	1736	1776	1725	1732	1783	1900	1892	1881
10-12 y	**Males**	925	911	881	903	909	905	903	869	874	915	912
	Females	799	799	805	820	819	795	819	829	797	809	812
	Total	1724	1710	1686	1723	1728	1700	1722	1698	1671	1724	1724
13-14 y	**Males**	352	361	356	327	319	339	382	416	427	421	416
	Females	304	300	261	296	283	313	324	320	348	361	394
	Total	656	661	617	623	602	652	706	736	775	782	810
Over 15 y	**Males**	40	60	44	53	50	45	68	87	95	80	83
	Females	54	63	64	63	62	63	61	79	84	69	92
	Total	94	123	108	116	112	108	129	166	179	149	175
All ages	**Males**	2674	2697	2592	2666	2706	2715	2778	2856	2927	2974	2973
	Females	2400	2431	2403	2448	2440	2480	2507	2532	2613	2710	2780
	Total	5074	5128	4995	5114	5146	5195	5285	5388	5540	5684	5753
All ages over 5 y	**Males over 5 y**	2674	2697	2592	2666	2706	2715	2778	2856	2927	2974	2973
	Females over 5 y	2400	2431	2403	2448	2440	2480	2507	2532	2613	2710	2780
	Total over 5 y	5074	5128	4995	5114	5146	5195	5285	5388	5540	5684	5753
All 5-15 y	**Males 5-15 y**	2634	2637	2548	2613	2656	2670	2710	2769	2832	2894	2890
	Females 5-15 y	2346	2368	2339	2385	2378	2417	2446	2453	2529	2641	2688
	Total 5-15 y	4980	5005	4887	4998	5034	5087	5156	5222	5361	5535	5578

Appendix 11.2 – South Canterbury Education District gender age ratios for 5-6 y age groups and 13-14 y age group to 7-9 y age group (source E1 reports)

Males	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***
5-6 y/7-9 y	0.6199	0.7212	0.8082	0.6872	0.6869	0.6110	0.5341	0.4763	0.4658	0.5644	0.5785	0.5091	0.5480	0.5345	0.5158	0.5416	0.5838
13-14 y/7-9 y	0.2050	0.2612	0.2704	0.2255	0.2613	0.2207	0.2525	0.2321	0.2213	0.2714	0.2565	0.2941	0.3264	0.3316	0.3217	0.3254	0.3469
Females	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***	***1896***
5-6 y/7-9 y	0.6736	0.7886	0.8025	0.6027	0.6160	0.5756	0.5753	0.5298	0.5028	0.4701	0.4878	0.5580	0.6052	0.5466	0.5530	0.4776	0.5000
13-14 y/7-9 y	0.2522	0.2790	0.2551	0.2259	0.2510	0.2205	0.2442	0.2485	0.2458	0.2622	0.2951	0.2749	0.3222	0.3042	0.3398	0.3657	0.3393

Males	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.5513	0.5096	0.5387	0.5333	0.5509	0.5476	0.5104	0.5115	0.5742	0.6223	0.5677	0.5787	0.5371	0.5674	0.5858
13-14 y/7-9 y	0.3333	0.3567	0.3413	0.3388	0.4023	0.4093	0.4101	0.3574	0.3584	0.3857	0.4202	0.4426	0.4287	0.4235	0.4223
Females	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.5210	0.5653	0.5906	0.5352	0.5048	0.5962	0.5735	0.5457	0.5056	0.5473	0.5832	0.5469	0.5310	0.6381	0.6540
13-14 y/7-9 y	0.3555	0.3382	0.3673	0.3556	0.3680	0.3774	0.3226	0.3605	0.3194	0.3700	0.3937	0.3796	0.3850	0.4020	0.4397

Appendix 11.3 – South Canterbury Education District raw Standards level data and pass/fail rates (source E1 reports)

	1879	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
Total no.	3065	3351	3531	3853	3902	4067	4203	4369	4584	4703	4804	4930	5044	5110
Total males	1603	1734	1821	1973	2013	2120	2170	2288	2359	2402	2474	2540	2567	2593
Total females	1462	1617	1710	1880	1907	1947	2033	2081	2225	2301	2330	2390	2477	2517
Total below Std 1	1054	1159	1059	1025	951	1069	1311	1393	1398	1448	1494	1436	1479	1450
Males below Std 1	552	596	544	520	503	569	694	744	734	748	779	757	746	734
Females below Std 1	502	563	515	505	448	500	617	649	664	700	715	679	733	716
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	650	663	592	812	672	697	647	661	629	648	660	691	683	734
Males Std 1	325	364	312	433	336	373	345	358	329	330	332	341	361	368
Females Std 1	325	299	280	379	336	324	302	303	300	318	328	350	322	366
Std 1 pass rate of presented	n/a	n/a	0.768	0.871	0.907	0.867	0.754	0.916	0.932	0.917	0.936	0.954	0.932	0.916
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented			0.232	0.129	0.093	0.133	0.246	0.084	0.068	0.083	0.064	0.046	0.068	0.084
Std 1 fail rate of total Std 1														
Total Std 2	653	552	628	561	668	701	672	661	631	687	675	725	691	701
Males Std 2	357	257	310	274	363	379	338	338	336	373	352	366	344	375
Females Std 2	296	295	318	287	305	322	334	323	295	314	323	359	347	326
Std 2 pass rate of presented			0.858	0.846	0.799	0.752	0.575	0.892	0.851	0.876	0.890	0.871	0.878	0.928
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented			0.142	0.154	0.201	0.248	0.425	0.108	0.149	0.124	0.110	0.129	0.122	0.072
Std 2 fail rate of total Std 2														
Total Std 3	371	585	569	593	593	601	655	697	805	697	728	737	778	761
Males Std 3	173	312	274	294	286	293	336	354	408	363	381	395	386	373
Females Std 3	198	273	295	299	307	308	319	343	397	334	347	342	392	388
Std 3 pass rate of presented			0.726	0.771	0.610	0.689	0.553	0.622	0.687	0.729	0.734	0.732	0.720	0.797
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented			0.274	0.229	0.390	0.311	0.447	0.378	0.313	0.271	0.266	0.268	0.280	0.203
Std 3 fail rate of total Std 3														

Total Std 4	299	323	426	463	514	499	482	494	551	577	562	616	639	675
Males Std 4	155	161	226	234	260	247	239	263	275	267	283	328	329	346
Females Std 4	144	162	200	229	254	252	243	231	276	310	279	288	310	329
Std 4 pass rate of presented			0.545	0.555	0.550	0.598	0.541	0.556	0.687	0.779	0.726	0.685	0.698	0.766
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented			0.455	0.445	0.450	0.402	0.459	0.444	0.313	0.221	0.274	0.315	0.302	0.234
Std 4 fail rate of total Std 4														
Total Std 5	141	142	167	281	299	291	243	299	346	390	413	402	435	416
Males Std 5	87	77	92	154	160	159	126	156	167	200	207	198	235	204
Females Std 5	54	65	75	127	139	132	117	143	179	190	206	204	200	212
Std 5 pass rate of presented			0.396	0.578	0.636	0.715	0.716	0.598	0.523	0.688	0.681	0.622	0.678	0.767
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented			0.604	0.422	0.364	0.285	0.284	0.402	0.477	0.312	0.319	0.378	0.322	0.233
Std 5 fail rate of total Std 5														
Total Std 6	35	76	79	102	158	139	149	119	170	181	187	217	233	264
Males Std 6	25	45	56	55	77	71	72	55	89	91	99	101	122	138
Females Std 6	10	31	23	47	81	68	77	64	81	90	88	116	111	126
Std 6 pass rate of presented			0.536	0.442	0.809	0.771	0.825	0.753	0.744	0.817	0.804	0.768	0.749	0.874
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented			0.464	0.558	0.191	0.229	0.175	0.247	0.256	0.183	0.196	0.232	0.251	0.126
Std 6 fail rate of total Std 6														
Total above Std 6	0	6	11	16	65	70	44	45	54	75	85	106	106	109
Males above Std 6	0	6	7	9	28	29	20	20	21	30	41	54	44	55
Females above Std 6	0	0	4	7	37	41	24	25	33	45	44	52	62	54

Appendix 11.3 continued (2)

	1893	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*	*1901*	*1902*	*1903*	*1904*	*1905*	*1906*
Total no.	5167	5141	5331	5322	5211	5197	5139	5148	5074	5128	4995	5114	5146	5195
Total males	2644	2630	2740	2755	2711	2720	2695	2712	2674	2697	2592	2666	2706	2715
Total females	2523	2511	2591	2567	2500	2477	2444	2436	2400	2431	2403	2448	2440	2480
Total below Std 1	1436	1262	1428	1396	1136	1182	1206	1167	1179	1237	1246	1297	1282	1304
Males below Std 1	755	659	768	768	638	628	633	623	630	654	644	691	696	696
Females below Std 1	681	603	660	628	498	554	573	544	549	583	602	606	586	608
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	749	688	672	651	615	652	577	573	548	586	585	566	607	624
Males Std 1	379	351	357	325	320	365	313	298	295	307	302	282	316	334
Females Std 1	370	337	315	326	295	287	264	275	253	279	283	284	291	290
Std 1 pass rate of presented	0.948	0.980	0.987	0.989	0.986	0.992	0.990	0.939	0.956	0.945	0.928			
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	0.052	0.020	0.013	0.011	0.014	0.008	0.010	0.061	0.044	0.055	0.072			
Std 1 fail rate of total Std 1														
Total Std 2	726	725	690	696	639	640	650	555	579	570	602	625	598	606
Males Std 2	356	367	348	376	321	330	364	285	279	291	305	339	292	318
Females Std 2	370	358	342	320	318	310	286	270	300	279	297	286	306	288
Std 2 pass rate of presented	0.930	0.970	0.959	0.968	0.968	0.980	0.980	0.944	0.937	0.954	0.919			
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented	0.070	0.030	0.041	0.032	0.032	0.020	0.020	0.056	0.063	0.046	0.081			
Std 2 fail rate of total Std 2														
Total Std 3	753	803	861	796	795	772	676	697	626	605	574	617	653	636
Males Std 3	401	405	446	407	416	372	341	393	330	307	301	322	362	323
Females Std 3	352	398	415	389	379	350	335	304	296	298	273	295	291	313
Std 3 pass rate of presented	0.810	0.771	0.808	0.824	0.836	0.868	0.837	0.905	0.881	0.885	0.866			
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented	0.190	0.229	0.192	0.176	0.164	0.132	0.163	0.095	0.119	0.115	0.134			
Std 3 fail rate of total Std 3														

Total Std 4	668	666	705	770	757	780	747	696	647	617	636	591	605	651
Males Std 4	327	340	349	396	400	400	399	377	359	342	320	304	309	344
Females Std 4	341	326	356	374	357	380	348	319	288	275	316	287	296	307
Std 4 pass rate of presented	0.747	0.646	0.757	0.725	0.718	0.839	0.806	0.877	0.837	0.823	0.817			
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented	0.253	0.354	0.243	0.275	0.282	0.161	0.194	0.123	0.163	0.177	0.183			
Std 4 fail rate of total Std 4														
Total Std 5	452	512	525	529	616	566	622	656	660	629	607	613	586	591
Males Std 5	236	255	259	253	304	310	321	358	335	336	338	322	317	300
Females Std 5	216	257	266	276	312	256	301	298	325	293	269	291	269	291
Std 5 pass rate of presented	0.752	0.691	0.776	0.758	0.794	0.818	0.785	0.834	0.805	0.776	0.774			
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented	0.248	0.309	0.224	0.242	0.206	0.182	0.215	0.166	0.195	0.224	0.226			
Std 5 fail rate of total Std 5														
Total Std 6	267	326	300	343	434	416	418	519	521	554	477	497	503	466
Males Std 6	130	169	146	164	211	206	224	251	290	299	253	263	269	244
Females Std 6	137	157	154	179	223	210	194	268	231	255	224	234	234	222
Std 6 pass rate of presented	0.831	0.707	0.853	0.823	0.840	0.884	0.775	0.689	0.700	0.736	0.684			
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented	0.169	0.293	0.147	0.177	0.160	0.116	0.225	0.311	0.300	0.264	0.316			
Std 6 fail rate of total Std 6														
Total above Std 6	116	159	150	141	219	239	243	285	314	330	268	308	312	317
Males above Std 6	60	84	67	66	101	109	100	127	156	161	129	143	145	156
Females above Std 6	56	75	83	75	118	130	143	158	158	169	139	165	167	161

Appendix 11.3 continued (3)

	1907	***1908***	***1909***	***1910***	***1911***
Total no.	5285	5388	5540	5684	5753
Total males	2778	2856	2927	2974	2973
Total females	2507	2532	2613	2710	2780
Total below Std 1	1546	1888	1991	2084	2138
Males below Std 1	817	1020	1054	1070	1090
Females below Std 1	729	868	937	1014	1048
Below Std 1 pass rate					
Below Std 1 fail rate					
Total Std 1	601	635	635	676	677
Males Std 1	320	333	331	360	342
Females Std 1	281	302	304	316	335
Std 1 pass rate of presented					
Std 1 pass rate of total Std 1					
Std 1 fail rate of presented					
Std 1 fail rate of total Std 1					
Total Std 2	621	625	635	629	574
Males Std 2	331	319	340	321	320
Females Std 2	290	306	295	308	254
Std 2 pass rate of presented					
Std 2 pass rate of total Std 2					
Std 2 fail rate of presented					
Std 2 fail rate of total Std 2					
Total Std 3	615	591	599	659	659
Males Std 3	329	320	313	348	343
Females Std 3	286	271	286	311	316
Std 3 pass rate of presented					
Std 3 pass rate of total Std 3					
Std 3 fail rate of presented					
Std 3 fail rate of total Std 3					

Total Std 4	612	620	609	561	647
Males Std 4	317	325	322	294	345
Females Std 4	295	295	287	267	302
Std 4 pass rate of presented					
Std 4 pass rate of total Std 4					
Std 4 fail rate of presented					
Std 4 fail rate of total Std 4					
Total Std 5	570	531	537	546	485
Males Std 5	296	280	296	290	255
Females Std 5	274	251	241	256	230
Std 5 pass rate of presented					
Std 5 pass rate of total Std 5					
Std 5 fail rate of presented					
Std 5 fail rate of total Std 5					
Total Std 6	544	355	384	388	441
Males Std 6	274	184	201	226	227
Females Std 6	270	171	183	162	214
Std 6 pass rate of presented					
Std 6 pass rate of total Std 6					
Std 6 fail rate of presented					
Std 6 fail rate of total Std 6					
Total above Std 6	176	143	150	141	132
Males above Std 6	94	75	70	65	51
Females above Std 6	82	68	80	76	81

Appendix 11.4 – South Canterbury Education District observed and calculated expected pupil numbers for Standards 4, 5, and 6 (ob = observed; ex = expected; S3 to S4 = {S4 ob – previous year S3 ob}/ previous year S3 ob, as a %), this is the change in pupil numbers in successive years for successive Standards levels expressed as a percentage of the lower level; similarly for S4 to S5 and S5 to S6)

	1881	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
S3 ob	569	593	593	601	655	697	805	697	728	737	778	761
S4 ob	426	463	514	499	482	494	551	577	562	616	639	675
S3 pass rate	0.726	0.771	0.61	0.689	0.553	0.622	0.687	0.729	0.734	0.732	0.72	0.797
S4 fail rate	0.726	0.771	0.61	0.689	0.553	0.622	0.687	0.729	0.734	0.732	0.72	0.797
S4 ex		722.37	814.18	675.27	757.90	628.76	740.80	931.57	928.75	946.86	990.40	1020.24
S3 to S4		-18.6292	-13.3221	-15.8516	-19.8003	-24.5802	-20.9469	-28.3230	-19.3687	-15.3846	-13.2972	-13.2391
S4 Ob/Ex		0.6409	0.6313	0.7390	0.6360	0.7857	0.7438	0.6194	0.6051	0.6506	0.6452	0.6616
S5 ob	167	281	299	291	243	299	346	390	413	402	435	416
S4 pass rate	0.545	0.555	0.55	0.598	0.541	0.556	0.687	0.779	0.726	0.685	0.698	0.766
S5 fail rate	0.604	0.422	0.364	0.285	0.284	0.402	0.477	0.312	0.319	0.378	0.322	0.233
S5 ex		333.04	375.55	391.54	381.34	329.77	394.86	543.58	571.16	539.76	573.92	586.09
S4 to S5		-34.0376	-35.4212	-43.3852	-51.3026	-37.9668	-29.9595	-29.2196	-28.4229	-28.4698	-29.3831	-34.8983
S5 Ob/Ex		0.8437	0.7962	0.7432	0.6372	0.9067	0.8763	0.7175	0.7231	0.7448	0.7580	0.7098
S6 ob	79	102	158	139	149	119	170	181	187	217	233	264
S5 pass rate	0.396	0.578	0.636	0.715	0.716	0.598	0.523	0.688	0.681	0.622	0.678	0.767
S6 fail rate	0.464	0.558	0.191	0.229	0.175	0.247	0.256	0.183	0.196	0.232	0.251	0.126
S6 ex		102.79	219.33	220.34	239.90	200.06	208.20	224.48	301.44	317.91	300.39	353.41
S5 to S6		-38.9222	-43.7722	-53.5117	-48.7973	-51.0288	-43.1438	-47.6879	-52.0513	-47.4576	-42.0398	-39.3103
S6 Ob/Ex		0.9923	0.7204	0.6308	0.6211	0.5948	0.8165	0.8063	0.6203	0.6826	0.7757	0.7470

Appendix 11.4 continued

	1893	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*	*1901*	*1902*	*1903*	*1904*
S3 ob	753	803	861	796	795	772	676	697	626	605	574	617
S4 ob	668	666	705	770	757	780	747	696	647	617	636	591
S3 pass rate	0.81	0.771	0.808	0.824	0.836	0.868	0.837	0.905	0.881	0.885	0.866	
S4 fail rate	0.81	0.771	0.808	0.824	0.836	0.868	0.837	0.905	0.881	0.885	0.866	
S4 ex	1144.49	1151.01	1132.60	1265.33	1290.38	1297.47	1347.14	1191.05	1260.67	1121.51	1081.47	1047.86
S3 to S4	-12.2208	-11.5538	-12.2042	-10.5691	-4.8995	-1.8868	-3.2383	2.9586	-7.1736	-1.4377	5.1240	2.9617
S4 Ob/Ex	0.5837	0.5786	0.6225	0.6085	0.5866	0.6012	0.5545	0.5844	0.5132	0.5501	0.5881	0.5640
S5 ob	452	512	525	529	616	566	622	656	660	629	607	613
S4 pass rate	0.747	0.646	0.757	0.725	0.718	0.839	0.806	0.877	0.837	0.823	0.817	
S5 fail rate	0.248	0.309	0.224	0.242	0.206	0.182	0.215	0.166	0.195	0.224	0.226	
S5 ex	613.98	611.09	588.44	651.29	686.27	670.42	757.43	735.81	719.29	670.24	648.69	656.79
S4 to S5	-33.0370	-23.3533	-21.1712	-24.9645	-20.0000	-25.2312	-20.2564	-12.1821	-5.1724	-2.7821	-1.6207	-3.6164
S5 Ob/Ex	0.7362	0.8378	0.8922	0.8122	0.8976	0.8442	0.8212	0.8915	0.9176	0.9385	0.9357	0.9333
S6 ob	267	326	300	343	434	416	418	519	521	554	477	497
S5 pass rate	0.752	0.691	0.776	0.758	0.794	0.818	0.785	0.834	0.805	0.776	0.774	
S6 fail rate	0.169	0.293	0.147	0.177	0.16	0.116	0.225	0.311	0.3	0.264	0.316	
S6 ex	352.34	385.03	449.31	451.50	461.69	558.54	511.24	582.32	708.51	687.60	634.36	620.55
S5 to S6	-35.8173	-27.8761	-41.4063	-34.6667	-17.9584	-32.4675	-26.1484	-16.5595	-20.5793	-16.0606	-24.1653	-18.1219
S6 Ob/Ex	0.7578	0.8467	0.6677	0.7597	0.9400	0.7448	0.8176	0.8913	0.7353	0.8057	0.7519	0.8009

Appendix 12.1 – Otago Education District raw age data and gender ratios for 7-9 y age groups (source E1 reports)

		1879	*1880*	*1881*	*1882*	*1883*	*1884*	*1885*	*1886*	*1887*	*1888*	*1889*
Under 5 y	**Males**	213	194									
	Females	222	209									
	Total	435	403									
5-6 y	**Males**	1942	1993	2068	2153	2243	2231	2012	2090	1997	2068	2184
	Females	1774	1849	1869	2038	2023	2058	1931	1917	1805	1709	1955
	Total	3716	3842	3937	4191	4266	4289	3943	4007	3802	3777	4139
7-9 y	**Males**	3200	3474	3574	3660	3929	4126	4290	4245	4300	4102	4145
	Females	3049	3340	3332	3326	3574	3818	3968	3974	4042	3956	3925
	Total	6249	6814	6906	6986	7503	7944	8258	8219	8342	8056	8070
10-12 y	**Males**	2831	2992	3113	3063	3051	3318	3485	3757	3847	3954	3913
	Females	2547	2857	2912	2974	3060	3107	3179	3367	3593	3656	3649
	Total	5378	5849	6025	6037	6111	6425	6664	7124	7440	7610	7562
13-14 y	**Males**	870	991	1035	1033	1129	1205	1234	1262	1398	1330	1333
	Females	849	913	991	971	1073	1118	1136	1139	1135	1191	1173
	Total	1719	1904	2026	2004	2202	2323	2370	2401	2533	2521	2506
Over 15 y	**Males**	138	177	165	195	202	194	206	255	264	217	217
	Females	149	214	215	252	261	239	220	249	299	242	247
	Total	287	391	380	447	463	433	426	504	563	459	464
All ages	**Males**	9194	9821	9955	10104	10554	11074	11227	11609	11806	11669	11792
	Females	8590	9382	9319	9561	9991	10340	10434	10646	10874	10754	10949
	Total	17784	19203	19274	19665	20545	21414	21661	22255	22680	22423	22741
All ages 5 y & over	**Males 5 y & over**	8981	9627	9955	10104	10554	11074	11227	11609	11806	11669	11792
	Females 5 y & over	8368	9173	9319	9561	9991	10340	10434	10646	10874	10754	10949
	Total 5 y & over	17349	18800	19274	19665	20545	21414	21661	22255	22680	22423	22741
All 5-15 y	**Males 5-15 y**	8843	9450	9790	9909	10352	10880	11021	11354	11542	11452	11575
	Females 5-15 y	8219	8959	9104	9309	9730	10101	10214	10397	10575	10512	10702
	Total 5-15 y	17062	18409	18894	19218	20082	20981	21235	21751	22117	21964	22277

Appendix 12.1 continued (2)

		1890	*1891*	*1892*	*1893*	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	2048	1990	2083	2051	2034	1982	1803	1989	2020	1916	1824
	Females	2021	1950	1980	1880	1955	1942	1776	1830	1797	1789	1864
	Total	4069	3940	4063	3931	3989	3834	3579	3819	3817	3705	3688
7-9 y	**Males**	4163	4097	4023	3825	3806	3983	3861	3681	3606	3559	3540
	Females	3812	3738	3774	3768	3692	3777	3601	3594	3541	3476	3388
	Total	7975	7835	7797	7593	7498	7760	7462	7275	7147	7035	6928
10-12 y	**Males**	3868	3845	3851	3942	3942	3952	3947	3761	3543	3572	3432
	Females	3729	3688	3533	3589	3614	3708	3733	3605	3403	3435	3398
	Total	7597	7533	7384	7531	7556	7660	7680	7366	6946	7007	6830
13-14 y	**Males**	1478	1459	1598	1620	1582	1543	1526	1503	1492	1364	1304
	Females	1201	1206	1277	1322	1303	1275	1237	1287	1211	1125	1026
	Total	2679	2665	2875	2942	2885	2818	2763	2790	2703	2489	2330
Over 15 y	**Males**	232	249	283	292	352	363	320	284	274	186	198
	Females	230	251	266	273	273	294	287	253	297	186	176
	Total	462	500	549	565	625	657	607	537	571	372	374
All ages	**Males**	11789	11640	11838	11730	11716	11733	11457	11218	10935	10597	10298
	Females	10993	10833	10830	10832	10837	10996	10634	10569	10249	10011	9852
	Total	22782	22473	22668	22562	22553	22729	22091	21787	21184	20608	20150
All ages 5 y & over	**Males 5 y & over**	11789	11640	11838	11730	11716	11733	11457	11218	10935	10597	10298
	Females 5 y & over	10993	10833	10830	10832	10837	10996	10634	10569	10249	10011	9852
	Total 5 y & over	22782	22473	22668	22562	22553	22729	22091	21787	21184	20608	20150
All 5-15 y	**Males 5-15 y**	11557	11391	11555	11438	11364	11370	11137	10934	11209	10411	10100
	Females 5-15 y	10763	10582	10564	10559	10564	10702	10347	10316	9952	9825	9676
	Total 5-15 y	22320	21973	22119	21997	21928	22072	21484	21250	21161	20236	19776

Appendix 12.1 continued (3)

		1901	*1902*	*1903*	*1904*	*1905*	*1906*	*1907*	*1908*	*1909*	*1910*	*1911*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	1859	1796	1821	1766	1784	1882	1887	1913	2115	2137	2159
	Females	1984	1769	1710	1704	1718	1728	1637	1768	1874	1997	1970
	Total	3843	3565	3531	3470	3502	3610	3524	3681	3989	4134	4129
7-9 y	**Males**	3470	3496	3354	3347	3321	3262	3145	3288	3438	3589	3613
	Females	3299	3354	3343	3253	3249	3133	2996	3038	3378	3345	3419
	Total	6769	6850	6697	6600	6570	6395	6141	6326	6816	6934	7032
10-12 y	**Males**	3408	3357	3423	3474	3436	3255	3234	3277	3178	3199	3359
	Females	3196	3234	3201	3204	3155	3154	3194	3144	2979	3009	3062
	Total	6604	6591	6624	6678	6591	6409	6428	6421	6157	6208	6421
13-14 y	**Males**	1304	1360	1230	1182	1154	1282	1411	1347	1378	1324	1410
	Females	1073	1168	1016	1088	1045	1043	1312	1316	1187	1237	1251
	Total	2377	2528	2246	2270	2199	2325	2723	2663	2565	2561	2661
Over 15 y	**Males**	169	307	214	184	182	174	193	255	218	214	211
	Females	171	206	192	170	162	173	174	221	155	193	163
	Total	340	513	406	354	344	347	367	476	373	407	374
All ages	**Males**	10210	10316	10042	9953	9877	9764	9870	10080	10327	10463	10752
	Females	9723	9731	9462	9419	9329	9231	9313	9487	9573	9781	9865
	Total	19933	20047	19504	19372	19206	18995	19183	19567	19900	20244	20617
All ages 5 y & over	**Males 5 y & over**	10210	10316	10042	9953	9877	9764	9870	10080	10327	10463	10752
	Females 5 y & over	9723	9731	9462	9419	9329	9231	9313	9487	9573	9781	9865
	Total 5 y & over	19933	20047	19504	19372	19206	18995	19183	19567	19900	20244	20617
All 5-15 y	**Males 5-15 y**	10041	10009	9828	9769	9695	9590	9677	9825	10109	10249	10541
	Females 5-15 y	9552	9525	9270	9249	9167	9058	9139	9266	9418	9588	9702
	Total 5-15 y	19593	19534	19098	18484	18862	18648	18816	19091	19527	19837	20243

Appendix 12.2 – Otago Education District gender age ratios for 5-6 y age groups and 13-14 y age group to 7-9 y age group (source E1 reports)

Males	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***
5-6 y/7-9 y	0.5737	0.5786	0.5883	0.5709	0.5407	0.4690	0.4923	0.4644	0.5041	0.5269	0.4920	0.4857	0.5178	0.5362	0.5344	0.4976
13-14 y/7-9 y	0.2853	0.2896	0.2822	0.2874	0.2921	0.2876	0.2973	0.3251	0.3242	0.3216	0.3550	0.3561	0.3972	0.4235	0.4157	0.3874
Females	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***
5-6 y/7-9 y	0.5536	0.5609	0.6127	0.5660	0.5390	0.4866	0.4824	0.4466	0.4320	0.4981	0.5302	0.5217	0.5246	0.4989	0.5295	0.5142
13-14 y/7-9 y	0.2734	0.2974	0.2919	0.3002	0.2928	0.2863	0.2866	0.2808	0.3011	0.2989	0.3151	0.3226	0.3384	0.3508	0.3529	0.3376

Males	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.4670	0.5403	0.5602	0.5384	0.5153	0.5357	0.5137	0.5429	0.5276	0.5372	0.5769	0.6000	0.5818	0.6152	0.5954	0.5976
13-14 y/7-9 y	0.3952	0.4083	0.4138	0.3833	0.3684	0.3758	0.3890	0.3667	0.3532	0.3475	0.3930	0.4486	0.4097	0.4008	0.3689	0.3903
Females	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.4932	0.5092	0.5075	0.5147	0.5502	0.6014	0.5274	0.5115	0.5238	0.5288	0.5515	0.5464	0.5820	0.5548	0.5970	0.5762
13-14 y/7-9 y	0.3435	0.3581	0.3420	0.3236	0.3028	0.3253	0.3482	0.3039	0.3345	0.3216	0.3329	0.4379	0.4332	0.3514	0.3698	0.3659

Appendix 12.3 – Otago Education District raw Standards level data and pass/fail rates (source E1 reports)

	1879	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
Total no.	17349	18800	19274	19665	20545	21414	21661	22255	22680	22423	22741	22782	22473	22668
Total males	8981	9627	9955	10104	10554	11074	11227	11609	11806	11669	11792	11789	11640	11838
Total females	8368	9173	9319	9561	9991	10340	10434	10646	10874	10754	10949	10993	10833	10830
Total below Std 1	4897	5229	5301	5592	6072	6285	6110	6027	5964	6041	6137	6055	6130	5815
Males below Std 1	2550	2676	2785	2881	3181	3332	3203	3184	3231	3271	3268	3157	3195	3068
Females below Std 1	2347	2553	2516	2711	2891	2953	2907	2843	2733	2770	2869	2898	2935	2747
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	3667	3868	3462	3226	3228	3434	3394	3488	3283	3032	3121	2977	2815	3002
Males Std 1	1852	1971	1794	1724	1640	1747	1763	1782	1688	1572	1650	1545	1488	1580
Females Std 1	1815	1897	1668	1502	1588	1687	1631	1706	1595	1460	1471	1432	1327	1422
Std 1 pass rate of presented	n/a	0.810	0.830	0.940	0.920	0.914	0.908	0.904	0.926	0.928	0.944	0.925	0.950	0.951
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	n/a	0.190	0.170	0.060	0.080	0.086	0.092	0.096	0.074	0.072	0.056	0.075	0.050	0.049
Std 1 fail rate of total Std 1														
Total Std 2	2733	3013	2845	2952	2929	3019	3126	3242	3276	3182	3106	3088	2885	2927
Males Std 2	1447	1519	1448	1499	1507	1548	1560	1696	1642	1587	1592	1617	1494	1521
Females Std 2	1286	1494	1397	1453	1422	1471	1566	1546	1634	1595	1514	1471	1391	1406
Std 2 pass rate of presented		0.820	0.840	0.760	0.770	0.853	0.807	0.818	0.864	0.907	0.924	0.906	0.920	0.946
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented		0.180	0.160	0.240	0.230	0.147	0.193	0.182	0.136	0.093	0.076	0.094	0.080	0.054
Std 2 fail rate of total Std 2														
Total Std 3	2729	2860	2951	2798	3028	3154	3099	3139	3194	3299	3285	3218	3190	3105
Males Std 3	1398	1449	1522	1425	1537	1585	1591	1578	1637	1648	1625	1624	1635	1612
Females Std 3	1331	1411	1429	1373	1491	1569	1508	1561	1557	1651	1660	1594	1555	1493
Std 3 pass rate of presented		0.690	0.730	0.620	0.600	0.698	0.684	0.747	0.783	0.816	0.826	0.805	0.783	0.843
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented		0.310	0.270	0.380	0.400	0.302	0.316	0.253	0.217	0.184	0.174	0.195	0.217	0.157
Std 3 fail rate of total Std 3														

Total Std 4	2035	2150	2355	2402	2375	2592	2620	2627	2770	2712	2840	2954	2904	2993
Males Std 4	1034	1122	1203	1214	1228	1345	1357	1361	1383	1396	1436	1497	1442	1511
Females Std 4	1001	1028	1152	1188	1147	1247	1263	1266	1387	1316	1404	1457	1462	1482
Std 4 pass rate of presented		0.670	0.700	0.560	0.620	0.564	0.670	0.744	0.778	0.791	0.808	0.811	0.778	0.790
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented		0.330	0.300	0.440	0.380	0.436	0.330	0.256	0.222	0.209	0.192	0.189	0.222	0.210
Std 4 fail rate of total Std 4														
Total Std 5	1167	1289	1391	1507	1646	1489	1791	1941	2101	2175	2169	2292	2282	2265
Males Std 5	620	646	716	752	837	791	959	1043	1104	1123	1118	1197	1174	1197
Females Std 5	547	643	675	755	809	698	832	898	997	1052	1051	1095	1108	1068
Std 5 pass rate of presented		0.730	0.670	0.620	0.580	0.708	0.684	0.678	0.707	0.735	0.777	0.758	0.728	0.825
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented		0.270	0.330	0.380	0.420	0.292	0.316	0.322	0.293	0.265	0.223	0.242	0.272	0.175
Std 5 fail rate of total Std 5														
Total Std 6	419	565	696	798	830	978	907	1077	1246	1296	1331	1348	1453	1573
Males Std 6	218	308	349	417	416	511	479	581	683	707	716	723	771	834
Females Std 6	201	257	347	381	414	467	428	496	563	589	615	625	682	739
Std 6 pass rate of presented		0.840	0.730	0.830	0.820	0.797	0.829	0.761	0.795	0.807	0.807	0.849	0.833	0.924
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented		0.160	0.270	0.170	0.180	0.203	0.171	0.239	0.205	0.193	0.193	0.151	0.167	0.076
Std 6 fail rate of total Std 6														
Total above Std 6	137	229	273	390	437	463	614	714	846	686	752	850	814	988
Males above Std 6	75	130	138	192	208	215	315	384	438	365	387	429	441	515
Females above Std 6	62	99	135	198	229	248	299	330	408	321	365	421	373	473

Appendix 12.3 continued (2)

	1893	***1894***	***1895***	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***
Total no.	22562	22553	22729	22091	21787	21184	20608	20150	19933	20047	19504	19372	19206	18995
Total males	11730	11716	11733	11457	11218	10935	10597	10298	10210	10316	10042	9953	9877	9764
Total females	10832	10837	10996	10634	10569	10249	10011	9852	9723	9731	9462	9419	9329	9231
Total below Std 1	5589	5412	5622	5225	4879	4650	4833	4989	5085	5047	5263	5054	5046	4996
Males below Std 1	2972	2838	2945	2796	2556	2598	2526	2530	2604	2647	2720	2644	2621	2566
Females below Std 1	2617	2574	2677	2429	2323	2052	2307	2459	2481	2400	2543	2410	2425	2430
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	2936	2790	2725	2661	2516	2481	2437	2202	2072	2267	2215	2217	2247	2495
Males Std 1	1497	1430	1417	1365	1281	1261	1264	1159	1082	1106	1150	1114	1133	1282
Females Std 1	1439	1360	1308	1296	1235	1220	1173	1043	990	1161	1065	1103	1114	1213
Std 1 pass rate of presented	0.959	0.972	0.988	0.980	0.986	0.992	0.994	0.965	0.959	0.950	0.940			
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	0.041	0.025	0.012	0.020	0.014	0.008	0.006	0.035	0.041	0.050	0.060			
Std 1 fail rate of total Std 1														
Total Std 2	3095	2969	2854	2752	2690	2605	2454	2455	2332	2308	2321	2326	2274	2257
Males Std 2	1622	1525	1448	1408	1412	1311	1235	1255	1221	1177	1160	1197	1166	1159
Females Std 2	1473	1444	1406	1344	1278	1294	1219	1200	1111	1131	1161	1129	1108	1098
Std 2 pass rate of presented	0.951	0.949	0.962	0.963	0.967	0.961	0.969	0.915	0.924	0.911	0.913			
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented	0.049	0.051	0.038	0.037	0.033	0.039	0.031	0.085	0.076	0.089	0.087			
Std 2 fail rate of total Std 2														
Total Std 3	3133	3192	2868	2730	2887	2964	2750	2686	2627	2479	2507	2497	2477	2275
Males Std 3	1619	1614	1331	1396	1457	1532	1446	1385	1354	1301	1290	1243	1258	1179
Females Std 3	1514	1578	1537	1334	1430	1432	1304	1301	1273	1178	1217	1254	1219	1096
Std 3 pass rate of presented	0.821	0.846	0.886	0.874	0.876	0.831	0.837	0.864	0.860	0.846	0.819			
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented	0.179	0.154	0.114	0.126	0.124	0.169	0.163	0.136	0.140	0.154	0.181			
Std 3 fail rate of total Std 3														

Total Std 4	2937	3058	3107	3019	3009	2791	2852	2622	2514	2530	2433	2499	2461	2336
Males Std 4	1550	1588	1668	1526	1544	1405	1468	1360	1249	1321	1285	1288	1273	1204
Females Std 4	1387	1470	1439	1493	1465	1386	1384	1262	1220	1209	1148	1211	1188	1132
Std 4 pass rate of presented	0.751	0.761	0.846	0.821	0.796	0.797	0.810	0.870	0.848	0.844	0.804			
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented	0.249	0.239	0.154	0.179	0.204	0.203	0.190	0.130	0.152	0.156	0.196			
Std 4 fail rate of total Std 4														
Total Std 5	2353	2370	2635	2577	2547	2523	2307	2450	2393	2265	2282	2242	2184	2078
Males Std 5	1205	1257	1406	1328	1268	1218	1157	1204	1216	1162	1195	1153	1128	1058
Females Std 5	1148	1113	1229	1249	1279	1305	1150	1246	1177	1103	1087	1089	1056	1020
Std 5 pass rate of presented	0.784	0.806	0.869	0.843	0.823	0.800	0.802	0.831	0.842	0.815	0.760			
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented	0.216	0.194	0.131	0.157	0.177	0.200	0.198	0.169	0.158	0.185	0.240			
Std 5 fail rate of total Std 5														
Total Std 6	1573	1671	1733	1874	1930	1789	1825	1755	1852	1958	1688	1715	1718	1754
Males Std 6	839	868	916	990	1016	915	950	925	937	1032	856	875	870	902
Females Std 6	734	803	817	884	914	874	875	830	915	926	832	840	848	852
Std 6 pass rate of presented	0.927	0.919	0.947	0.918	0.911	0.911	0.883	0.724	0.786	0.710	0.703			
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented	0.073	0.081	0.053	0.082	0.089	0.089	0.117	0.276	0.214	0.290	0.297			
Std 6 fail rate of total Std 6														
Total above Std 6	946	1091	1185	1253	1329	1381	1150	991	1058	1193	795	822	799	804
Males above Std 6	426	596	602	648	684	695	551	480	502	570	386	439	428	414
Females above Std 6	520	495	583	605	645	686	599	511	556	623	409	383	371	390

Appendix 12.3 continued (3)

	1907	***1908***	***1909***	***1910***	***1911***
Total no.	19183	19567	19900	20244	20617
Total males	9870	10080	10327	10463	10752
Total females	9313	9487	9573	9781	9865
Total below Std 1	5579	7132	7313	7449	7494
Males below Std 1	2875	3688	3844	3850	3998
Females below Std 1	2704	3444	3469	3599	3496
Below Std 1 pass rate					
Below Std 1 fail rate					
Total Std 1	2531	2264	2442	2455	2570
Males Std 1	1311	1192	1230	1270	1300
Females Std 1	1220	1072	1212	1185	1270
Std 1 pass rate of presented					
Std 1 pass rate of total Std 1					
Std 1 fail rate of presented					
Std 1 fail rate of total Std 1					
Total Std 2	2249	2187	2320	2426	2423
Males Std 2	1146	1138	1201	1255	1208
Females Std 2	1103	1049	1119	1171	1215
Std 2 pass rate of presented					
Std 2 pass rate of total Std 2					
Std 2 fail rate of presented					
Std 2 fail rate of total Std 2					
Total Std 3	2188	2357	2260	2355	2427
Males Std 3	1152	1234	1124	1217	1260
Females Std 3	1036	1123	1136	1138	1167
Std 3 pass rate of presented					
Std 3 pass rate of total Std 3					
Std 3 fail rate of presented					
Std 3 fail rate of total Std 3					

Total Std 4	2216	2144	2182	2118	2277
Males Std 4	1132	1066	1145	1095	1200
Females Std 4	1084	1078	1037	1023	1077
Std 4 pass rate of presented					
Std 4 pass rate of total Std 4					
Std 4 fail rate of presented					
Std 4 fail rate of total Std 4					
Total Std 5	1967	1838	1868	1816	1783
Males Std 5	986	906	1001	940	941
Females Std 5	981	932	867	876	842
Std 5 pass rate of presented					
Std 5 pass rate of total Std 5					
Std 5 fail rate of presented					
Std 5 fail rate of total Std 5					
Total Std 6	1602	1174	1359	1249	1281
Males Std 6	825	612	721	642	678
Females Std 6	777	562	638	607	603
Std 6 pass rate of presented					
Std 6 pass rate of total Std 6					
Std 6 fail rate of presented					
Std 6 fail rate of total Std 6					
Total above Std 6	851	471	156	376	362
Males above Std 6	443	244	61	194	167
Females above Std 6	408	227	95	182	195

Appendix 12.4 – Otago Education District observed and calculated expected pupil numbers for Standards 4, 5, and 6 (ob = observed; ex = expected; S3 to S4 = {S4 ob – previous year S3 ob}/ previous year S3 ob, as a %), this is the change in pupil numbers in successive years for successive Standards levels expressed as a percentage of the lower level; similarly for S4 to S5 and S5 to S6)

	1880	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
S3 ob	2860	2951	2798	3028	3154	3099	3139	3194	3299	3285	3218	3190	3105
S4 ob	2150	2355	2402	2375	2592	2620	2627	2770	2712	2840	2954	2904	2993
S3 pass rate	0.69	0.73	0.62	0.6	0.698	0.684	0.747	0.783	0.816	0.826	0.805	0.783	0.843
S4 fail rate	0.33	0.3	0.44	0.38	0.436	0.33	0.256	0.222	0.209	0.192	0.189	0.222	0.21
S4 ex		2682.90	2860.73	2791.64	2719.30	3331.60	2984.32	3017.35	3115.84	3258.79	3258.69	3148.80	3142.46
S3 to S4		-17.6573	-18.6039	-15.1179	-14.3989	-16.9309	-15.2307	-11.7553	-15.0908	-13.9133	-10.0761	-9.7576	-6.1755
S4 Ob/Ex		0.8778	0.8396	0.8508	0.9532	0.7864	0.8803	0.9180	0.8704	0.8715	0.9065	0.9223	0.9524
S5 ob	1289	1391	1507	1646	1489	1791	1941	2101	2175	2169	2292	2282	2265
S4 pass rate	0.67	0.7	0.56	0.62	0.564	0.67	0.744	0.778	0.791	0.808	0.811	0.778	0.79
S5 fail rate	0.27	0.33	0.38	0.42	0.292	0.316	0.322	0.293	0.265	0.223	0.242	0.272	0.175
S5 ex		1788.53	2107.53	1917.78	2163.82	1896.68	2321.36	2579.49	2770.65	2721.57	2778.41	2950.36	2880.02
S4 to S5		-35.3023	-36.0085	-31.4738	-37.3053	-30.9028	-25.9160	-20.0228	-21.4801	-20.0221	-19.2958	-22.7488	-22.0041
S5 Ob/Ex		0.7777	0.7151	0.8583	0.6881	0.9443	0.8361	0.8145	0.7850	0.7970	0.8249	0.7735	0.7865
S6 ob	565	696	798	830	978	907	1077	1246	1296	1331	1348	1453	1573
S5 pass rate	0.73	0.67	0.62	0.58	0.708	0.684	0.678	0.707	0.735	0.777	0.758	0.728	0.825
S6 fail rate	0.16	0.27	0.17	0.18	0.203	0.171	0.239	0.205	0.193	0.193	0.151	0.167	0.076
S6 ex		1031.37	1119.89	1070.00	1104.08	1252.75	1380.14	1573.40	1740.84	1848.75	1942.20	1940.88	1903.95
S5 to S6		-46.0047	-42.6312	-44.9237	-40.5832	-39.0866	-39.8660	-35.8063	-38.3151	-38.8046	-37.8515	-36.6056	-31.0692
S6 Ob/Ex		0.6748	0.7126	0.7757	0.8858	0.7240	0.7804	0.7919	0.7445	0.7199	0.6941	0.7486	0.8262

Appendix 12.4 continued

	1893	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*	*1901*	*1902*	*1903*	*1904*
S3 ob	3133	3192	2868	2730	2887	2964	2750	2686	2627	2479	2507	2497
S4 ob	2937	3058	3107	3019	3009	2791	2852	2622	2514	2530	2433	2499
S3 pass rate	0.821	0.846	0.886	0.874	0.876	0.831	0.837	0.864	0.86	0.846	0.819	
S4 fail rate	0.249	0.239	0.154	0.179	0.204	0.203	0.19	0.13	0.152	0.156	0.196	
S4 ex	3246.05	3303.51	3431.29	3019.53	2926.42	3142.85	3029.66	2843.63	2661.56	2641.35	2491.91	2530.10
S3 to S4	-5.4106	-2.3939	-2.6629	5.2650	10.2198	-3.3253	-3.7787	-4.6545	-6.4036	-3.6924	-1.8556	-0.3191
S4 Ob/Ex	0.9048	0.9257	0.9055	0.9998	1.0282	0.8880	0.9414	0.9221	0.9446	0.9578	0.9764	0.9877
S5 ob	2353	2370	2635	2577	2547	2523	2307	2450	2393	2265	2282	2242
S4 pass rate	0.751	0.761	0.846	0.821	0.796	0.797	0.81	0.87	0.848	0.844	0.804	
S5 fail rate	0.216	0.194	0.131	0.157	0.177	0.2	0.198	0.169	0.158	0.185	0.24	
S5 ex	2760.85	2713.94	2786.92	2973.71	2883.19	2845.98	2729.03	2766.91	2695.19	2509.97	2554.35	2503.81
S4 to S5	-21.3832	-19.3054	-13.8326	-17.0583	-15.6343	-16.1515	-17.3415	-14.0954	-8.7338	-9.9045	-9.8024	-7.8504
S5 Ob/Ex	0.8523	0.8733	0.9455	0.8666	0.8834	0.8865	0.8454	0.8855	0.8879	0.9024	0.8934	0.8954
S6 ob	1573	1671	1733	1874	1930	1789	1825	1755	1852	1958	1688	1715
S5 pass rate	0.784	0.806	0.869	0.843	0.823	0.8	0.802	0.831	0.842	0.815	0.76	
S6 fail rate	0.073	0.081	0.053	0.082	0.089	0.089	0.117	0.276	0.214	0.29	0.297	
S6 ex	1988.17	1959.58	2045.57	2381.66	2326.08	2267.95	2177.62	2063.74	2520.33	2411.23	2413.80	2235.66
S5 to S6	-30.5519	-28.9843	-26.8776	-28.8805	-25.1067	-29.7605	-27.6655	-23.9272	-24.4082	-18.1780	-25.4746	-24.8466
S6 Ob/Ex	0.7912	0.8527	0.8472	0.7868	0.8297	0.7888	0.8381	0.8504	0.7348	0.8120	0.6993	0.7671

Appendix 13.1 – Southland Education District raw age data and gender ratios for 7-9 y age groups (source E1 reports)

		1879	*1880*	*1881*	*1882*	*1883*	*1884*	*1885*	*1886*	*1887*	*1888*	*1889*
Under 5 y	**Males**	109	105									
	Females	110	97									
	Total	219	202									
5-6 y	**Males**	427	512	607	591	641	624	704	784	784	706	751
	Females	379	416	512	413	572	580	602	608	663	690	719
	Total	806	928	1119	1004	1213	1204	1306	1392	1447	1396	1470
7-9 y	**Males**	762	885	856	1007	1150	1300	1338	1385	1464	1533	1594
	Females	711	760	860	913	1066	1151	1195	1309	1370	1306	1409
	Total	1473	1645	1716	1920	2216	2451	2533	2694	2834	2839	3003
10-12 y	**Males**	654	699	810	876	909	993	1071	1148	1324	1350	1318
	Females	618	724	722	893	843	884	1011	1063	1171	1264	1285
	Total	1272	1423	1532	1769	1752	1877	2082	2211	2495	2614	2603
13-14 y	**Males**	238	294	265	299	325	323	429	400	425	467	518
	Females	237	276	260	336	314	272	365	368	386	428	450
	Total	475	570	525	635	639	626	794	768	811	895	968
Over 15 y	**Males**	54	73	71	61	68	76	83	71	99	90	86
	Females	45	50	70	91	87	81	86	95	101	125	113
	Total	99	123	141	152	155	157	169	166	200	215	199
All ages	**Males**	2244	2568	2609	2834	3093	3316	3625	3788	4096	4146	4267
	Females	2100	2323	2424	2646	2882	3069	3259	3443	3691	3813	3976
	Total	4344	4891	5033	5480	5975	6385	6884	7231	7787	7959	8243
All ages 5 y & over	**Males 5 y & over**	2135	2463	2609	2834	3093	3316	3625	3788	4096	4146	4267
	Females 5 y & over	1990	2226	2424	2646	2882	3069	3259	3443	3691	3813	3976
	Total 5 y & over	4125	4452	5033	5480	5975	6385	6884	7231	7787	7959	8243
All 5-15 y	**Males 5-15 y**	2081	2390	2538	2773	3025	3240	3542	3717	3997	4056	4181
	Females 5-15 y	1945	2176	2354	2555	2795	2988	3173	3348	3590	3688	3863
	Total 5-15 y	4026	4566	4892	5328	5820	6228	6715	7065	7587	7744	8044

Appendix 13.1 continued (2)

		1890	*1891*	*1892*	*1893*	*1894*	*1895*	*1896*	*1897*	*1898*	*1899*	*1900*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	738	781	867	867	883	854	868	929	979	874	874
	Females	683	697	745	814	785	828	851	859	846	848	851
	Total	1421	1478	1612	1681	1668	1682	1719	1788	1825	1722	1725
7-9 y	**Males**	1547	1576	1632	1711	1712	1721	1723	1727	1655	1747	1711
	Females	1385	1475	1490	1505	1592	1588	1620	1589	1574	1625	1575
	Total	2932	3055	3122	3216	3340	3309	3343	3316	3229	3372	3286
10-12 y	**Males**	1408	1485	1527	1583	1613	1664	1660	1671	1684	1657	1655
	Females	1306	1317	1394	1435	1442	1501	1454	1552	1550	1486	1479
	Total	2714	2802	2921	3018	3055	3165	3114	3223	3234	3143	3134
13-14 y	**Males**	531	536	590	602	635	636	652	655	641	628	581
	Females	492	499	508	553	532	568	582	574	509	497	531
	Total	1023	1035	1098	1155	1167	1204	1234	1229	1150	1125	1112
Over 15 y	**Males**	116	110	122	110	101	101	113	97	85	86	99
	Females	126	107	124	100	99	110	115	107	101	69	61
	Total	242	217	246	210	200	211	228	204	186	155	160
All ages	**Males**	4340	4488	4738	4873	4944	4976	5016	5079	5044	4992	4920
	Females	3992	4099	4261	4407	4450	4595	4622	4681	4580	4525	4497
	Total	8332	8587	8999	9280	9394	9571	9638	9760	9624	9517	9417
All ages 5 y & over	**Males 5 y & over**	4340	4488	4738	4873	4944	4976	5016	5079	5044	4992	4920
	Females 5 y & over	3992	4099	4261	4407	4450	4595	4622	4681	4580	4525	4497
	Total 5 y & over	8332	8587	8999	9280	9394	9571	9638	9760	9624	9517	9417
All 5-15 y	**Males 5-15 y**	4224	4378	4616	4763	4843	4875	4903	4982	4959	4906	4821
	Females 5-15 y	3866	3983	4137	4307	4351	4485	4507	4574	4479	4456	4436
	Total 5-15 y	8090	8361	8753	9070	9194	9360	9410	9556	9438	9362	9257

Appendix 13.1 continued (3)

		1901	*1902*	*1903*	*1904*	*1905*	*1906*	*1907*	*1908*	*1909*	*1910*	*1911*
Under 5 y	**Males**											
	Females											
	Total											
5-6 y	**Males**	937	864	907	906	934	927	975	955	1054	1056	1074
	Females	851	861	837	795	864	916	888	902	949	944	1004
	Total	1788	1725	1744	1701	1798	1843	1863	1857	2003	2000	2078
7-9 y	**Males**	1658	1695	1724	1788	1727	1752	1712	1732	1761	1872	1961
	Females	1610	1615	1641	1659	1604	1583	1601	1696	1707	1713	1816
	Total	3268	3310	3365	3447	3331	3335	3313	3428	3468	3585	3777
10-12 y	**Males**	1656	1677	1656	1647	1668	1670	1716	1735	1738	1693	1717
	Females	1490	1538	1522	1537	1582	1552	1541	1534	1554	1596	1669
	Total	3146	3215	3178	3184	3250	3222	3257	3269	3292	3289	3386
13-14 y	**Males**	607	686	578	608	606	635	623	680	759	747	742
	Females	545	507	495	514	472	530	592	583	581	640	611
	Total	1152	1193	1073	1122	1078	1165	1215	1263	1340	1387	1353
Over 15 y	**Males**	77	80	76	72	69	75	80	67	72	85	99
	Females	68	90	78	79	72	97	88	85	90	62	66
	Total	145	170	154	151	141	172	168	152	162	147	165
All ages	**Males**	4935	5002	4941	5021	5004	5059	5106	5169	5384	5453	5593
	Females	4564	4611	4573	4584	4594	4678	4710	4800	4881	4955	5166
	Total	9499	9613	9514	9605	9598	9737	9816	9969	10265	10408	10759
All ages 5 y & over	**Males 5 y & over**	4935	5002	4941	5021	5004	5059	5106	5169	5384	5453	5593
	Females 5 y & over	4564	4611	4573	4584	4594	4678	4710	4800	4881	4955	5166
	Total 5 y & over	9499	9613	9514	9605	9598	9737	9816	9969	10265	10408	10759
All 5-15 y	**Males 5-15 y**	4858	4922	4865	4949	4935	4984	5026	5102	5312	5368	5494
	Females 5-15 y	4496	4521	4495	4505	4522	4581	4622	4715	4791	4893	5100
	Total 5-15 y	9354	9443	9360	9454	9457	9565	9648	9817	10103	10261	10594

Appendix 13.2 – Southland Education District gender age ratios for 5-6 y age groups and 13-14 y age group to 7-9 y age group (source E1 reports)

Males	***1879***	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***
5-6 y/7-9 y	0.5604	0.5785	0.7091	0.5869	0.5574	0.4800	0.5262	0.5661	0.5355	0.4605	0.4711	0.4771	0.4956	0.5313	0.5067	0.5158	0.4962
13-14 y/7-9 y	0.3123	0.3322	0.3096	0.2969	0.2826	0.2485	0.3206	0.2888	0.2903	0.3046	0.3250	0.3432	0.3401	0.3615	0.3518	0.3709	0.3696
Females	***1879***	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***	***1893***	***1894***	***1895***
5-6 y/7-9 y	0.5331	0.5474	0.5953	0.4524	0.5366	0.5039	0.5038	0.4645	0.4839	0.5283	0.5103	0.4931	0.4725	0.5000	0.5409	0.4931	0.5214
13-14 y/7-9 y	0.3333	0.3632	0.3023	0.3680	0.2946	0.2363	0.3054	0.2811	0.2818	0.3277	0.3194	0.3552	0.3383	0.3409	0.3674	0.3342	0.3577

Males	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.5038	0.5379	0.5915	0.5003	0.5108	0.5651	0.5097	0.5261	0.5067	0.5408	0.5291	0.5695	0.5514	0.5985	0.5641	0.5477
13-14 y/7-9 y	0.3784	0.3793	0.3873	0.3595	0.3396	0.3661	0.4047	0.3353	0.3400	0.3509	0.3624	0.3639	0.3926	0.4310	0.3990	0.3784
Females	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***	***1907***	***1908***	***1909***	***1910***	***1911***
5-6 y/7-9 y	0.5253	0.5406	0.5375	0.5218	0.5403	0.5286	0.5331	0.5101	0.4792	0.5387	0.5786	0.5547	0.5318	0.5559	0.5511	0.5529
13-14 y/7-9 y	0.3593	0.3612	0.3234	0.3058	0.3371	0.3385	0.3139	0.3016	0.3098	0.2943	0.3348	0.3698	0.3438	0.3404	0.3736	0.3365

Appendix 13.3 – Southland Education District raw Standards level data and pass/fail rates (source E1 reports)

	1879	***1880***	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
Total no.	3844	4891	5033	5480	5975	6385	6884	7231	7787	7959	8243	8332	8587	8999
Total males	2006	2568	2609	2834	3093	3316	3625	3788	4096	4146	4267	4340	4488	4738
Total females	1838	2323	2424	2646	2882	3069	3259	3443	3691	3813	3976	3992	4099	4261
Total below Std 1	764	1065	1018	1393	1660	1897	2136	2361	2283	2330	2475	2497	2602	2496
Males below Std 1	398	576	569	775	833	989	1126	1284	1257	1229	1309	1335	1412	1346
Females below Std 1	366	489	449	618	827	908	1010	1077	1026	1101	1166	1162	1190	1150
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	1054	1064	1107	1103	1238	1203	1241	1482	1362	1217	1227	1125	1127	1252
Males Std 1	556	560	580	585	674	620	638	739	684	679	632	579	559	682
Females Std 1	498	504	527	518	564	583	603	743	678	538	595	546	568	570
Std 1 pass rate of presented	n/a	0.817	0.779	0.842	0.825	0.885	0.864	0.945	0.954	0.955	0.951	0.943	0.954	0.966
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	n/a	0.183	0.221	0.158	0.175	0.115	0.136	0.055	0.046	0.045	0.049	0.057	0.046	0.034
Std 1 fail rate of total Std 1														
Total Std 2	676	1018	926	965	1024	1032	1115	1054	1243	1191	1169	1194	1109	1299
Males Std 2	312	534	481	484	540	573	584	527	642	591	642	643	578	643
Females Std 2	364	484	445	481	484	459	531	527	601	600	527	551	531	656
Std 2 pass rate of presented		0.686	0.703	0.727	0.674	0.761	0.766	0.933	0.910	0.908	0.953	0.935	0.936	0.942
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented		0.314	0.297	0.273	0.326	0.239	0.234	0.067	0.090	0.092	0.047	0.065	0.064	0.058
Std 2 fail rate of total Std 2														
Total Std 3	739	829	1044	953	1004	1070	1055	1101	1193	1342	1326	1293	1336	1287
Males Std 3	395	399	518	474	511	535	576	582	614	663	642	677	714	673
Females Std 3	344	430	526	479	493	535	479	519	579	679	684	616	622	614
Std 3 pass rate of presented		0.375	0.386	0.611	0.447	0.558	0.596	0.611	0.689	0.719	0.741	0.736	0.744	0.779
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented		0.625	0.614	0.389	0.553	0.442	0.404	0.389	0.311	0.281	0.259	0.264	0.256	0.221
Std 3 fail rate of total Std 3														

Total Std 4	497	540	602	720	656	734	773	776	930	948	1041	1065	1081	1176
Males Std 4	255	292	308	345	333	365	386	418	471	468	509	522	571	634
Females Std 4	242	248	294	375	323	369	387	358	459	480	532	543	510	542
Std 4 pass rate of presented		0.408	0.275	0.535	0.324	0.511	0.450	0.598	0.673	0.693	0.775	0.763	0.765	0.732
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented		0.592	0.725	0.465	0.676	0.489	0.550	0.402	0.327	0.307	0.225	0.237	0.235	0.268
Std 4 fail rate of total Std 4														
Total Std 5	239	264	233	241	290	319	369	321	515	603	657	746	787	812
Males Std 5	148	135	102	126	151	165	195	158	284	332	335	366	376	423
Females Std 5	91	129	131	115	139	154	174	163	231	271	322	380	411	389
Std 5 pass rate of presented		0.163	0.482	0.391	0.415	0.435	0.504	0.539	0.576	0.642	0.600	0.667	0.671	0.769
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented		0.837	0.518	0.609	0.585	0.565	0.496	0.461	0.424	0.358	0.400	0.333	0.329	0.231
Std 5 fail rate of total Std 5														
Total Std 6	93	108	90	93	89	107	162	110	197	237	252	315	426	468
Males Std 6	50	70	43	38	43	61	97	63	114	136	147	170	228	236
Females Std 6	43	38	47	55	46	46	65	47	83	101	105	145	198	232
Std 6 pass rate of presented		0.800	0.714	0.545	0.452	0.627	0.550	0.746	0.740	0.739	0.827	0.821	0.784	0.898
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented		0.200	0.286	0.455	0.548	0.373	0.450	0.254	0.260	0.261	0.173	0.179	0.216	0.102
Std 6 fail rate of total Std 6														
Total above Std 6	1	3	13	12	14	23	33	26	64	91	96	97	119	209
Males above Std 6	1	2	8	7	8	8	23	17	30	48	51	48	50	101
Females above Std 6	0	1	5	5	6	15	10	9	34	43	45	49	69	108

Appendix 13.3 continued (2)

	1893	***1894***	***1895***	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***	***1905***	***1906***
Total no.	9280	9394	9571	9638	9760	9624	9517	9417	9499	9613	9514	9605	9598	9737
Total males	4873	4944	4976	5016	5079	5044	4992	4920	4935	5002	4941	5021	5004	5059
Total females	4407	4450	4595	4622	4681	4580	4525	4497	4564	4611	4573	4584	4594	4678
Total below Std 1	2603	2409	2398	2410	2452	2444	2408	2420	2553	2683	2648	2630	2724	2753
Males below Std 1	1386	1284	1231	1258	1319	1339	1279	1258	1365	1406	1411	1413	1456	1463
Females below Std 1	1217	1125	1167	1152	1133	1105	1129	1162	1188	1277	1237	1217	1268	1290
Below Std 1 pass rate														
Below Std 1 fail rate														
Total Std 1	1250	1257	1235	1195	1169	1236	1157	1114	1081	1078	1186	1143	1163	1134
Males Std 1	673	673	669	617	592	628	607	594	535	552	629	600	585	579
Females Std 1	577	584	566	578	577	608	550	520	546	526	557	543	578	555
Std 1 pass rate of presented	0.921	0.970	0.944	0.967	0.982	0.980	0.974	0.943	0.950	0.955	0.939			
Std 1 pass rate of total Std 1														
Std 1 fail rate of presented	0.079	0.030	0.056	0.033	0.018	0.020	0.026	0.057	0.050	0.045	0.061			
Std 1 fail rate of total Std 1														
Total Std 2	1271	1318	1231	1226	1234	1161	1253	1158	1092	1101	1113	1214	1135	1192
Males Std 2	687	673	637	644	615	585	656	594	567	562	567	627	598	619
Females Std 2	584	645	594	582	619	576	597	564	525	539	546	587	537	573
Std 2 pass rate of presented	0.928	0.955	0.946	0.944	0.962	0.956	0.958	0.923	0.925	0.945	0.943			
Std 2 pass rate of total Std 2														
Std 2 fail rate of presented	0.072	0.045	0.054	0.056	0.038	0.044	0.042	0.077	0.075	0.055	0.057			
Std 2 fail rate of total Std 2														
Total Std 3	1465	1489	1522	1363	1350	1352	1289	1293	1241	1153	1180	1173	1217	1176
Males Std 3	727	817	808	734	726	701	676	693	650	608	586	607	634	614
Females Std 3	738	672	714	629	624	651	613	600	591	545	594	566	583	562
Std 3 pass rate of presented	0.691	0.725	0.784	0.826	0.827	0.811	0.837	0.882	0.868	0.881	0.883			
Std 3 pass rate of total Std 3														
Std 3 fail rate of presented	0.309	0.275	0.216	0.174	0.173	0.189	0.163	0.118	0.132	0.119	0.117			
Std 3 fail rate of total Std 3														

Total Std 4	1222	1340	1392	1465	1378	1218	1255	1230	1277	1218	1131	1166	1127	1179
Males Std 4	635	678	734	769	720	644	657	630	675	645	597	581	581	635
Females Std 4	587	662	658	696	658	574	598	600	602	573	534	585	546	544
Std 4 pass rate of presented	0.620	0.630	0.719	0.721	0.762	0.807	0.806	0.881	0.831	0.859	0.855			
Std 4 pass rate of total Std 4														
Std 4 fail rate of presented	0.380	0.370	0.281	0.279	0.238	0.193	0.194	0.119	0.169	0.141	0.145			
Std 4 fail rate of total Std 4														
Total Std 5	797	876	995	1039	1155	1130	1031	1073	1047	1130	1096	1016	1073	1068
Males Std 5	438	468	488	542	604	588	546	573	548	588	597	547	543	530
Females Std 5	359	408	507	497	551	542	485	500	499	542	499	469	530	538
Std 5 pass rate of presented	0.635	0.756	0.718	0.727	0.815	0.765	0.790	0.866	0.846	0.857	0.847			
Std 5 pass rate of total Std 5														
Std 5 fail rate of presented	0.365	0.244	0.282	0.273	0.185	0.235	0.210	0.134	0.154	0.143	0.153			
Std 5 fail rate of total Std 5														
Total Std 6	473	466	511	634	651	730	726	762	784	843	790	893	754	887
Males Std 6	238	239	270	303	346	397	370	388	392	447	392	478	419	447
Females Std 6	235	227	241	331	305	333	356	374	392	396	398	415	335	440
Std 6 pass rate of presented	0.777	0.859	0.839	0.860	n/a	0.890	0.860	0.791	0.814	0.828	0.728			
Std 6 pass rate of total Std 6														
Std 6 fail rate of presented	0.223	0.141	0.161	0.140	n/a	0.110	0.140	0.209	0.186	0.172	0.272			
Std 6 fail rate of total Std 6														
Total above Std 6	199	239	287	306	371	353	398	367	424	407	370	370	405	348
Males above Std 6	89	112	139	149	157	162	201	190	203	194	162	168	188	172
Females above Std 6	110	127	148	157	214	191	197	177	221	213	208	202	217	176

Appendix 13.3 continued (3)

	1907	***1908***	***1909***	***1910***	***1911***
Total no.	9816	9969	10265	10408	10759
Total males	5106	5169	5384	5453	5593
Total females	4710	4800	4881	4955	5166
Total below Std 1	2867	3478	3618	3746	3853
Males below Std 1	1502	1818	1913	2004	2046
Females below Std 1	1365	1660	1705	1742	1807
Below Std 1 pass rate					
Below Std 1 fail rate					
Total Std 1	1142	1160	1304	1282	1361
Males Std 1	625	575	680	655	702
Females Std 1	517	585	624	627	659
Std 1 pass rate of presented					
Std 1 pass rate of total Std 1					
Std 1 fail rate of presented					
Std 1 fail rate of total Std 1					
Total Std 2	1114	1136	1174	1250	1305
Males Std 2	564	606	591	654	653
Females Std 2	550	530	583	596	652
Std 2 pass rate of presented					
Std 2 pass rate of total Std 2					
Std 2 fail rate of presented					
Std 2 fail rate of total Std 2					
Total Std 3	1198	1177	1160	1199	1260
Males Std 3	621	615	619	612	650
Females Std 3	577	562	541	587	610
Std 3 pass rate of presented					
Std 3 pass rate of total Std 3					
Std 3 fail rate of presented					
Std 3 fail rate of total Std 3					

Total Std 4	1187	1176	1166	1104	1166
Males Std 4	628	600	604	585	602
Females Std 4	559	576	562	519	564
Std 4 pass rate of presented					
Std 4 pass rate of total Std 4					
Std 4 fail rate of presented					
Std 4 fail rate of total Std 4					
Total Std 5	1111	1018	1036	1020	1003
Males Std 5	597	546	539	530	524
Females Std 5	514	472	497	490	479
Std 5 pass rate of presented					
Std 5 pass rate of total Std 5					
Std 5 fail rate of presented					
Std 5 fail rate of total Std 5					
Total Std 6	867	663	693	726	742
Males Std 6	416	344	387	381	385
Females Std 6	451	319	306	345	357
Std 6 pass rate of presented					
Std 6 pass rate of total Std 6					
Std 6 fail rate of presented					
Std 6 fail rate of total Std 6					
Total above Std 6	330	161	114	81	69
Males above Std 6	153	65	51	32	31
Females above Std 6	177	96	63	49	38

Appendix 13.4 – Southland Education District observed and calculated expected pupil numbers for Standards 4, 5, and 6 (ob = observed; ex = expected; S3 to S4 = {S4 ob – previous year S3 ob}/ previous year S3 ob, as a %), this is the change in pupil numbers in successive years for successive Standards levels expressed as a percentage of the lower level; similarly for S4 to S5 and S5 to S6)

	1880	***1881***	***1882***	***1883***	***1884***	***1885***	***1886***	***1887***	***1888***	***1889***	***1890***	***1891***	***1892***
S3 ob	829	1044	953	1004	1070	1055	1101	1193	1342	1326	1293	1336	1287
S4 ob	540	602	720	656	734	773	776	930	948	1041	1065	1081	1176
S3 pass rate	0.375	0.386	0.611	0.447	0.558	0.596	0.611	0.689	0.719	0.741	0.736	0.744	0.779
S4 fail rate	0.592	0.725	0.465	0.676	0.489	0.55	0.402	0.327	0.307	0.225	0.237	0.235	0.268
S4 ex		630.56	839.43	917.08	892.24	955.99	1053.93	984.66	1126.09	1255.93	1216.79	1204.05	1248.02
S3 to S4		-27.3824	-31.0345	-31.1647	-26.8924	-27.7570	-26.4455	-15.5313	-20.5365	-22.4292	-19.6833	-16.3960	-11.9760
S4 Ob/Ex		0.9547	0.8577	0.7153	0.8226	0.8086	0.7363	0.9445	0.8419	0.8289	0.8753	0.8978	0.9423
S5 ob	264	233	241	290	319	369	321	515	603	657	746	787	812
S4 pass rate	0.408	0.275	0.535	0.324	0.511	0.45	0.598	0.673	0.693	0.775	0.763	0.765	0.732
S5 fail rate	0.837	0.518	0.609	0.585	0.565	0.496	0.461	0.424	0.358	0.4	0.333	0.329	0.231
S5 ex		441.29	286.24	531.97	382.19	555.31	530.87	612.03	844.25	872.84	1069.58	1061.01	1085.89
S4 to S5		-56.8519	-59.9668	-59.7222	-51.3720	-49.7275	-58.4735	-33.6340	-35.1613	-30.6962	-28.3381	-26.1033	-24.8844
S5 Ob/Ex		0.5280	0.8419	0.5451	0.8347	0.6645	0.6047	0.8415	0.7142	0.7527	0.6975	0.7417	0.7478
S6 ob	108	90	93	89	107	162	110	197	237	252	315	426	468
S5 pass rate	0.163	0.482	0.391	0.415	0.435	0.504	0.539	0.576	0.642	0.6	0.667	0.671	0.769
S6 fail rate	0.2	0.286	0.455	0.548	0.373	0.45	0.254	0.26	0.261	0.173	0.179	0.216	0.102
S6 ex		64.63	138.05	136.55	169.12	178.68	258.88	200.96	347.86	448.98	437.80	553.97	620.09
S5 to S6		-65.9091	-60.0858	-63.0705	-63.1034	-49.2163	-70.1897	-38.6293	-53.9806	-58.2090	-52.0548	-42.8954	-40.5337
S6 Ob/Ex		1.3925	0.6737	0.6518	0.6327	0.9067	0.4249	0.9803	0.6813	0.5613	0.7195	0.7690	0.7547

Appendix 13.4 continued

	1893	***1894***	***1895***	***1896***	***1897***	***1898***	***1899***	***1900***	***1901***	***1902***	***1903***	***1904***
S3 ob	1465	1489	1522	1363	1350	1352	1289	1293	1241	1153	1180	1173
S4 ob	1222	1340	1392	1465	1378	1218	1255	1230	1277	1218	1131	1166
S3 pass rate	0.691	0.725	0.784	0.826	0.827	0.811	0.837	0.882	0.868	0.881	0.883	
S4 fail rate	0.38	0.37	0.281	0.279	0.238	0.193	0.194	0.119	0.169	0.141	0.145	
S4 ex	1317.74	1476.68	1575.33	1584.40	1534.57	1444.41	1331.55	1322.36	1286.80	1293.00	1187.53	1205.94
S3 to S4	-5.0505	-8.5324	-6.5144	-3.7451	1.1005	-9.7778	-7.1746	-4.5772	-1.2374	-1.8533	-1.9081	-1.1864
S4 Ob/Ex	0.9273	0.9074	0.8836	0.9246	0.8980	0.8432	0.9425	0.9302	0.9924	0.9420	0.9524	0.9669
S5 ob	797	876	995	1039	1155	1130	1031	1073	1047	1130	1096	1016
S4 pass rate	0.62	0.63	0.719	0.721	0.762	0.807	0.806	0.881	0.831	0.859	0.855	
S5 fail rate	0.365	0.244	0.282	0.273	0.185	0.235	0.21	0.134	0.154	0.143	0.153	
S5 ex	1048.40	1048.55	1057.94	1281.44	1339.91	1263.71	1248.48	1228.04	1227.41	1222.43	1207.85	1134.69
S4 to S5	-32.2279	-28.3142	-25.7463	-25.3592	-21.1604	-17.9971	-15.3530	-14.5020	-14.8780	-11.5114	-10.0164	-10.1680
S5 Ob/Ex	0.7602	0.8354	0.9405	0.8108	0.8620	0.8942	0.8258	0.8738	0.8530	0.9244	0.9074	0.8954
S6 ob	473	466	511	634	651	730	726	762	784	843	790	893
S5 pass rate	0.635	0.756	0.718	0.727	0.815	0.765	0.79	0.866	0.846	0.857	0.847	
S6 fail rate	0.223	0.141	0.161	0.14	n/a	0.11	0.14	0.209	0.186	0.172	0.272	
S6 ex	672.16	611.57	727.96	796.68	844.11		944.75	916.13	1088.48	1031.59	1113.41	1143.19
S5 to S6	-41.7488	-41.5307	-41.6667	-36.2814	-37.3436	-36.7965	-35.7522	-26.0912	-26.9338	-19.4842	-30.0885	-18.5219
S6 Ob/Ex	0.7037	0.7620	0.7020	0.7958	0.7712		0.7685	0.8318	0.7203	0.8172	0.7095	0.7811