

Fertility of New Zealand Women by Ethnicity

**based on
New Zealand 1996 Census of Population
and Dwellings**

Published in February 2004 by

Statistics New Zealand
Te Tari Tatau
Wellington, New Zealand

Catalogue Number 10.005
ISBN 0-478-26922-6

Preface

This research report examines aspects of fertility and ethnicity of New Zealand women. It follows earlier work presented in *Socio-Economic Factors and the Fertility of New Zealand Women* (Research Report #18) published in December 2001. This report is also based on the number of children born to women enumerated in the 1996 Census of Population and Dwellings. It is to be read in conjunction with this earlier report and closely follows the approach used there. This report will provide background for analysis of the data from the 2006 Census when this becomes available.

This volume examines the data and its background within the ethnic space, revisiting some aspects of data sources and data quality in this context. After a brief comparative analysis, selected groupings of ethnicities are looked at in turn. Because the various populations of interest have quite diverse age structures, the data has been standardised to the age structure of all women where appropriate. We have provided some information on a number of themes of particular interest for understanding the dynamics of the changing ethnic fabric of New Zealand society. We also consider a few of the linkages between ethnic, socio-economic and spatial differentials. This is intended to stress to the reader that none of these aspects should be seen entirely in isolation, but each in its own way contributes to fertility levels or represents a consequence of previous fertility decisions.

This report was written by Robert Didham, with assistance from Bill Boddington and Mansoor Khawaja. The author would like to thank the many people throughout Statistics New Zealand, other government agencies and the wider academic community, who have willingly shared their time, energy and ideas and who have taken the trouble to review all or part of the work which contributed to this publication.



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Acknowledgement

This report was prepared by the Demography Division and published by the Information and Publishing Services Division of Statistics New Zealand.

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In previous editions of Labour Market Statistics, variations in the procedure used for calculating totals existed, with some being calculated from pre-rounded figures. In this edition all totals have been calculated from unrounded data, this means a minority of totals differ slightly from those published previously.

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Source

All data is compiled by Statistics New Zealand, except where otherwise stated.

Symbols

The interpretation of the symbols used throughout this report is as follows:

- C confidential
- E early estimate
- P provisional
- R revised
- S suppressed
- nil or zero
- figure(s) not available
- .. figure too small to be expressed
- ... not applicable

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Fertility of New Zealand Women by Ethnicity

Chapter 1

Introduction

This research report continues the study of fertility and socio-economic characteristics based on analysis of some aspects of the data on the number of children born to women enumerated in the 1996 Census of Population and Dwellings. It is to be read in conjunction with this earlier report and closely follows the approach used there. It is anticipated that this work will form the background to an analysis of the data from the 2006 Census when this becomes available. In this volume, we examine the data and its background within the context of the ethnic space, revisiting some aspects of data sources and data quality in so far as they have special relevance to this perspective. Because the various populations of interest have quite diverse age structures, the data has been standardised to the age structure of all women where appropriate.

We have provided some information on a number of themes of particular interest for understanding the dynamics of the changing ethnic fabric of New Zealand society. The results reported here represent ongoing work. We also consider a few of the linkages between ethnic differentials on the one hand and socio-economic and spatial differentials on the other. This is intended to stress to the reader that none of these aspects should be seen entirely in isolation, but each in its own way contributes to fertility levels or represents a consequence of previous fertility decisions.

Fertility rates are dropping throughout the world. In 2002, 64 countries were already experiencing fertility rates below the theoretical replacement level of 2.1 births on average per woman. This is an increase of 10 countries from 1995. There are a further 25 countries either at or just above replacement level. This trend is projected to continue, so that by 2015 two-thirds of the population of the planet is expected to live in sub-replacement fertility regimes, according to specially commissioned *Report of the Expert Group Meeting on Below Replacement Fertility* (United Nations, 2000, 1–2).

Many of the countries, including New Zealand, with sub-replacement fertility have complex and rapidly changing demography. A key component of changes in fertility patterns is ethnic diversification. The ethnic landscape of New Zealand is changing and has taken on a new level of interest in recent years as immigration policies have changed and emigration has had an impact. This interest has extended to the identification and consequences of differences in the fertility characteristics of women of different ethnicities. As Zelinsky and Lee have observed (with reference to the United States of America but equally applicable to New Zealand) “we are in the midst of a profound remaking of the relationship between people and place that is both rapid and radical, a reordering of basic perceptions and behaviour” (Zelinsky and Lee, 1998, 283). The New Zealand experience is part of a global pattern of increasing ethnic diversity and complexity.

Differences in ethnicity are frequently cited to explain various social phenomena, thus an analysis of fertility differentials between women of different ethnicities is a desideratum, especially in the context of growing ethnic diversity in New Zealand. This entails a brief discussion of some of the central issues relating to measuring ethnicity in statistical collections, because the concept used has shifted over time from race, to ethnic origin and recently to ethnicity. This shift over time, from an overtly biological concept of race or ethnic origin to socio-cultural affiliation as the official basis of ethnicity, has been gradual. This has resulted in ethnic data that remains, despite intentions to the contrary, a blend of ethnicity, ancestry, nationality and race. The key to understanding ethnicity, as with other cultural systems (Uhlenbeck, 1923), is that it is less an affiliation to any of the contributory components than it is an affiliation to a system within which society operates.

Given the complexity of this blend, for many people, the decision to identify as belonging to an ethnic group, or combination of groups, may partly, sometimes even primarily, depend on genetic factors alongside a large number of non-genetic factors. Indeed, “statistics ... contribute in an important way to the process of identity creation in New Zealand” (Bedford and Didham, 2001, 21). Thus, the very way in which questions are asked, data processed and output framed and analysed leads in a material way to the reification of categories which started life merely as administrative constructs and prescriptors.

In a real sense, the concepts and the questions used are necessarily interdependent. Not only do the questions themselves define responses to some extent and thereby create periodic discontinuities in the data, the design of questions also reflects the socio-political environment at the time. To illustrate this, we need only consider that the census question on ethnicity used in 1996 would have been not

merely inappropriate, but in fact meaningless, had it been used, say, in 1926, as would the 1926 question used in 1996. The contextual frames of the two historical periods are mutually incompatible. Even neighbouring surveys may deliver apparently capricious results, as can be seen by comparing the data and the questions over the last few censuses.

Historically, the word 'ethnicity' together with its cognates has been used in English to refer to outsiders from its earliest uses in the 15th century CE (Fishman, 1999). However, in recent times, the term has taken on an additional inclusive role to categorise all people. In current statistical usage, the term ethnicity is used to refer to the ethnic group or groups a person identifies with or feels they belong to. This in part explains the comfort respondents have with the question – while the questions themselves are relatively easy for respondents to answer, each respondent may have a unique view of the meaning of the information being provided.

Ethnicity is intensely personal. A person's self-perceived ethnicity might differ considerably from how others would view them. Moreover, self-identifications may vary as people age, as their social networks change, or depending on their duration of residence in New Zealand. Unfortunately, we have no longitudinal studies to provide detailed information of this process, though ongoing ad hoc survey work is being done at, for example, the Population Centre of Waikato University. We therefore can only analyse fertility relative to the ethnicities stated at the time of enumeration.

Objectives and scope

This report analyses variations in the fertility levels and patterns of women of selected ethnicities. While the primary focus here is at the national level, the relationship between ethnicity and fertility at the subnational level is important, as spatial differentials are significant. We therefore also look at some interrelationships between fertility, socio-economic factors and the geographic and ethnic spaces.

The analysis covers the 1,273,929 women aged 15 years and over who specified both how many children were born to them and their ethnicities. Some analysis is also provided of how this group compares with the whole adult female population, looking at some aspects of the women who did not specify one or other of these characteristics. The primary attention will be on those women of European, Māori, Pacific and Asian ethnicities.

One group has not been analysed in depth. Women of other ethnicities who do not belong to the four largest groups still form a very small population and have fertility histories that are difficult to interpret. These women are predominantly recent migrants, with extremely diverse ethnicities and origins which are scattered geographically, mainly coming from Africa, the Middle East and Latin America. The nature of their move to New Zealand is generally so serendipitous that any fertility patterns among this group are more likely to be accidental than real. Moreover, this group is more likely to have not responded to the question on number of children than are other groups, perhaps because of both language limitations and cultural sensitivity, thus further weakening any analysis we might make.

Chapter 2

Data Sources and Data Quality

The primary data source for this study is the 1996 Census of Population and Dwellings. The data on the number of children ever born was collected by a question (figure 1) asked of all women aged 15 years and over who were resident in New Zealand. In all tables, unless otherwise stated, the reference is to this subject population.

Figure 1

Fertility Question, 1996 Census of Population and Dwellings

29 If you are female, answer this question
(If you are male, go to 30.)
How many babies have you given birth to?
COUNT ONLY any who were born alive

none

OR number born alive

OR object to answering this question

The question used in 1996 to collect information on ethnicity (figure 2) was asked of all respondents, including children and visitors to New Zealand. Up to three ethnicities were recorded for each respondent.

Figure 2

Ethnicity Question, 1996 Census of Population and Dwellings

10 Tick as many circles as you need to show which ethnic group(s) you belong to.

NZ Maori

NZ European or Pakeha

other European → Which of these groups?

Samoan

Cook Island Maori

Tongan

Niuean

Chinese

Indian

other (such as FIJIAN, KOREAN) → Print your ethnic group(s)

English

Dutch

Australian

Scottish

Irish

other

We are, in the case of number of children, looking at data that is subject to genetic as well as social and historical effects, but we are analysing this data within the socio-cultural framework of ethnicity. With the exception of the New Zealand Māori population, we do not have ancestry data at all. Thus, ethnicity acts as a surrogate for both the social and the biological drivers. This is entirely valid and appropriate if we consider socio-economic and cultural factors in isolation, but inevitably we have a problem beyond this. Nevertheless, at least partially the choice of ethnic identity is defined by genetic or familial factors, although very little is known about how this relates to identity with one or other parent's side of the family or how this changes over time as family relationships change.

Women of different ethnicities have quite different age structures (table 1) and this has a material effect on the apparent characteristics of the groups. For this reason we have standardised the rates for each group against the age structure of all women in the subject population so that the rates may be compared in most cases. Nevertheless, some caution is still required when comparing standardised rates, as age-transitions in childbearing norms (eg a rapid shift towards older childbearing) can still distort age-standardised figures.

Table 1

Ethnicity by Age
Women aged 15 years and over

Age Group (Years)	Ethnicity ⁽¹⁾					Total Specified	Not Specified	Total
	European	Māori	Pacific	Asian	Other			
	Number of Women							
15-24	199,299	50,421	19,287	18,780	1,314	254,643	11,688	266,331
25-34	223,575	44,979	17,871	17,418	1,536	279,954	11,928	291,882
35-44	218,517	33,564	12,117	16,629	1,278	264,753	10,770	275,520
45-54	179,808	19,605	7,122	8,331	657	206,469	7,839	214,308
55-64	126,810	12,237	4,137	3,717	270	142,182	5,481	147,666
65-74	116,007	6,222	2,379	2,022	171	124,089	5,598	129,690
75 and over	102,216	2,553	1,020	981	81	105,507	5,358	110,862
Total	1,166,232	169,581	63,930	67,875	5,307	1,377,597	58,662	1,436,256
	Percent of Specified Total						Percent Not Specified	
15-24	78.27	19.8	7.57	7.38	0.52	100	4.39	
25-34	79.86	16.07	6.38	6.22	0.56	100	4.09	
35-44	82.54	12.68	4.58	6.28	0.48	100	3.91	
45-54	87.09	9.5	3.45	4.03	0.32	100	3.66	
55-64	89.19	8.61	2.91	2.61	0.19	100	3.71	
65-74	93.49	5.01	1.92	1.63	0.14	100	4.32	
75 and over	96.88	2.42	0.97	0.93	0.08	100	4.83	
Total	84.66	12.31	4.64	4.93	0.39	100	4.08	

Source: 1996 Census of Population and Dwellings

(1) People may have more than one ethnicity and may be counted in more than one category

Not all women stated how many children they had given birth to. Among the 1,436,256 women aged 15 years and over enumerated by the census (table 1), there were 1,283,823 who specified the number of children they had given birth to, of whom 1,273,929 women also specified at least one ethnicity (table 2).

Table 2

Specified Ethnicity by Specified Number of Children

Ethnicity	Number of Children Stated	Number of Children Not Stated	Total
Ethnicity Stated	1,273,929	103,665	1,377,594
Ethnicity Not Stated	9,894	48,768	58,662
Total	1,283,823	152,433	1,436,256

Source: 1996 Census of Population and Dwellings

A fair concern is how valid it is to use the socio-cultural concept of ethnicity as a means of distinguishing behavioural characteristics of groups of people. As van Driem (2001, 137) has succinctly noted, “neither language nor culture is a hereditary trait ... not only individuals but entire peoples have often given up their native linguistic and cultural heritage to adopt another”. How this affects other behavioural patterns either at an individual level or at a group level is unclear. In the case of fertility, it could be argued that the macro-scale social and economic environment dominates (Statistics New Zealand, 2001).

A strong correlation between stated ethnicities and fertility characteristics was found, but we need to consider whether or not this correlation is coincidental or dependent. While doubts exist about what exactly people intended us to understand by their ethnicity responses, we can be sure that there are causal links between societal behaviour (of which fertility is one aspect) and a person’s social and familial histories. Nevertheless, there is a dilemma in determining whether societal or individual drivers dominate. At the macro-level, contextual conditions (such as the status of women) provide the environment for individual drivers (such as education) to operate. Because these two levels are interdependent, it is difficult to determine whether the contextual conditions determine the individual characteristics or the net effect of the characteristics of many individuals defines the context.

Hirschman and Young (2000, 14) take the view that “fertility behaviour, like all individual behaviour, is influenced by the social, economic, and cultural context as well as by individual circumstances”, concluding that “change in fertility behaviour is a product of large-scale changes in the organisation of societies that are filtered through changes in individual characteristics and the opportunities that the individuals face.” They see the primary driver as the social context modified by individual behaviour. This is certainly true, but partly underestimates the degree to which the contextual variables are modified by individual decision-making. Each modifies the other. The status of women depends largely on factors such as education at the individual level and the social roles of both women and men. The economic value of children depends on labour, health and social welfare needs at the family level as well as the availability of educational and other infrastructural facilities. At both levels, the link is the family, and intergenerational transfers, especially of expectations and ideas, form an inevitable backdrop.

Fortuitously, the genetic or ancestral component in people’s decision to identify with a particular ethnicity has links with this family history and allows us to claim some validity in using ethnicity as a discriminating parameter in fertility patterns. However, ethnicity is by no means independent of other factors. As Cavalli-Sforza et al (1994, 23) have pointed out: “There are in fact good *a priori* reasons why cultural and genetic pools have close similarities: both genetic and cultural contacts take place by the same routes; they respond to the same geographic and ecological barriers; and they also can influence each other, in the sense of mutual reinforcement.” Nor does New Zealand operate in isolation. There is an interrelationship between ethnicity, birthplace and spatial distribution, for example, in New Zealand, which results from both internal and external migration histories. Thus, a significant proportion of the New Zealand population operates within more than one set of contextual conditions – those related to their source societies and those related to their current social context (Elliott and Gray, 2000).

Ethnic populations grow in size as the result of fertility, immigration, miscegenation and inter-ethnic mobility gain. They decrease in size because of mortality, emigration and inter-ethnic mobility loss. Inter-ethnic mobility illustrates an important characteristic of ethnicity – ethnic populations are not closed in a biological sense. That is, a female can give birth to a child of different ethnicities if, for example, the child’s father belongs to a different ethnic group, or if the child adopts different ethnicities than either parent, or, indeed, if the ethnicities of one or other parent subsequently changes. Thus, in the New Zealand case, non-Māori females can contribute to the Māori population growth – and similarly for non-Pacific and non-Asian females.

Similar issues apply to people of other ethnicities. However, apart from relatively short interludes in New Zealand’s earlier colonial history, these other groups have been a recent phenomenon and are currently undergoing rapid changes in structure and nature. It is primarily for this reason that much of this discussion has focused on the fertility of people of Māori and European ethnicities, since the evidence covers a much longer period. For people of Pacific and Asian ethnicities, many aspects of the fertility regimes of people of other ethnicities reflect their origins outside New Zealand. However, it is apparent from our research that the interaction between ethnicities is volatile. New boundaries and socio-cultural patterns, which continue to emerge, contribute in several ways to advance our understanding of the relationship between societal change and fertility.

Measuring this aspect is not a trivial exercise. For example, comparisons of demographic estimates and census populations over the last three decades suggest that inter-ethnic mobility resulted in a net loss from the Māori ethnic group population of between 0.3 and 0.9 percent per year. However, continual changes to the ethnic group questions in recent years make it difficult to accurately measure recent inter-ethnic mobility. These changes, which partly reflect the sensitive nature of questions relating to ethnicity, have seen the questions changed every census between 1966 and 2001. It is not possible to quantify either the effects of increased cultural awareness which appears to have (at least in the short-term) resulted in inter-ethnic mobility gains to several ethnic groups, or the extent to which this is a formative component in the fertility differentials discussed here.

This points to another, more fundamentally important, aspect of this analysis. We are here analysing the relationship between the number of children born to women who were aged 15 years and over at the time of the 1996 Census and their stated ethnicities in March 1996. We are making the assumption that there is a valid link between this data and that it is meaningful. In fact, this is data with no history – for example, people’s ethnicities may change over time. We do not know what the ethnicities of the mothers (or their partners) were at the time of their baby’s birth, let alone at conception. We are assuming that the factors that result in identification with an ethnicity are related to the factors that generate the fertility patterns of descent groups that are in some way principally associated with those ethnicities, and that both sets of factors come together in the census data.

When we couple these aspects of ethnicity with the known problems in the data collected for the number of children a woman has given birth to (Statistics New Zealand, 2001), it is clear that we must look at broad trends rather than attempt detailed micro-analysis. While non-response is often cited as a measure of data quality, other quality issues, such as the reliability and quality of the data when we do have a response recorded, may be of some significance.

Chapter 3

The Historical Context

An historical overview provides a fundamental context within which to explain the collection of data on race, ethnic origin and ethnicity. Not only have these concepts changed over time, so have the ways in which the concepts are applied to an understanding of social change. Of growing importance, for example, is how the concept of society interfaces with the concept of ethnicity. We may contextualise the data synchronically across a range of social structures, for example, with respect to the interrelationships between various ethnic communities, or we may do so diachronically, for example, across generations by considering children born to women of differing ethnicities.

The key shift over time has been the move from using the biological concept of race or ethnic origin to using a socio-cultural affiliation concept as the basis of ethnicity. This implies that we are looking at data in a way that unpacks, to some extent, the interaction between biological processes and social forces. However, we cannot actually go very far along this path with the data available to us, except in the case of women of Māori ethnicity. For this group we also specifically have ancestry data from the 1996 Census.

We are focusing, here, on the larger ethnic populations, and are grouping them on roughly geographic grounds into four major groupings. Clearly this raises a number of issues relating to boundaries and typology, however the boundaries are predefined by the standard classification of ethnicities and the data collected and processed in this context.

People of European ethnicities have been the largest group by far for the last century and a half at least. Although the first new settlers were primarily, but not entirely, European, there were among them not just British people but others who came from a number of distinct ethnic groups, cultural backgrounds and social classes from other parts of Europe. New Zealand offered an opportunity to escape past prejudice. Inter-marriage was common even among groups that had not traditionally mixed. Thus, groups that were disparate in the origin countries were largely viewed as homogenous in the New Zealand context.

Following World War II, significant migration from the Pacific islands introduced a relatively new component to the population. This component grew quite rapidly during the late 1960s and early 1970s, though it was not an entirely new element in the New Zealand population – even by 1951 one in three Pacific people living in New Zealand had been born in this country. A key element of their demographic behaviour has been the rapid increase in intermarriage and formation of partnerships with other communities and, in particular, with the New Zealand Māori population. In the 1996 Census, 66 percent of partnerships involving people of Māori ethnicity were partnerships between a Māori partner and a non-Māori partner. For people of Pacific ethnicities, this figure is already over 42 percent and for people of Asian ethnicities it is increasing rapidly, exceeding 32 percent by 1996. By the late 1990s a large proportion of Pacific people was born in New Zealand and increasingly their children were also of Māori and other ethnicities.

Table 3

Ethnic Composition (Total Responses)
Selected censuses 1916–1996

Ethnicity ⁽¹⁾ and Sex	Census Year				
	1916	1936	1956	1976	1996
European					
Male	95.7	95.8	95.0	91.7	83.0
Female	96.4	96.5	95.4	92.0	83.1
Māori					
Male	4.8	6.1	7.6	11.8	15.2
Female	4.5	5.8	7.4	11.7	15.0
Asian					
Male	0.4	0.4	0.6	1.1	4.9
Female	0.0	0.1	0.4	1.0	5.1
Pacific					
Male	0.0	0.1	0.5	2.5	5.9
Female	0.0	0.1	0.4	2.4	5.8

Source: 1996 Census of Population and Dwellings

(1) People may have more than one ethnicity and may be counted in more than one category

The fourth major component of the New Zealand population, the Asian communities, predates the Pacific groups, as can be seen from table 3. There had been people of Asian ethnicity living in New Zealand from the early days of European settlement, albeit in very small numbers. During the period of gold rushes later in the 19th century the number of Chinese temporary settlers from China, Australia and America increased sharply. This was an interlude in many respects, though a small population remained and settled permanently (Ng, 1993–1999; Ip, 2003). This group may have been small, but more people of Asian ethnicities than of Pacific ethnicities lived in New Zealand prior to around 1960, after which immigration from the Pacific region increased significantly. However, in the 1980s and 1990s the number of people of Asian ethnicities grew more rapidly while immigration from the Pacific slowed, and by the end of the century this group was again larger than the Pacific population.

A fifth, more recent, component comprises refugees and other settlers from Africa and the Middle East, most recently from Somalia. While there had been previous settlers from Middle East countries, such as Syria, very few people have come from Equatorial Africa in the past. This component was in general still far too small and recent in 1996 to generalise about their likely impact on ethnic diversification.

In the following chapters, the reproductive experience of the women in each of the four larger groups of ethnicities will be compared and analysed. This will provide a picture of not just how each group differs, but also how the contribution of each group fits into the country's childbearing patterns. Although the discussion centres on the women concerned, men cannot be overlooked,¹ since paternity effects contribute significantly to fertility dynamics, especially in inter-ethnic mobility. However, as Murray and Lager (2001, 25) have pointed out, the demography of the male contribution to fertility trends is a topic about which very little is known.

An important source of ethnic diversity in fertility patterns and fertility histories is external migration. This has several components – people leave New Zealand to live elsewhere and the characteristics of this group differ from the characteristics of the groups who choose to settle in or to return to this country. Among the new settlers, birthplace, age structure, ethnicity and educational qualifications play major roles in driving patterns, as does the age at which they arrive. The relationship between childbearing and income or employment for these sectors of the population is less clear and appears to be secondary to education (though there is a relationship between the educational level of the mother and the socio-economic status of her parents which may contribute to the effect). Of much greater significance is that it does not always follow that these factors operate in the same way in different populations. For example, while educational achievement is associated with lower fertility on average among most populations, this may not necessarily hold for immigrant populations when they settle in New Zealand. Highly qualified immigrants unable to use their qualifications may choose to put their efforts into having families who will succeed as a means of compensation for loss of their own careers. Conversely they may choose to have fewer children and subsequently move to another country after the children are educated. Thus, there are many unknown processes that could modify patterns in census data, and it is unwise to infer trends from data with no history unless this can be supported either theoretically or by ancillary evidence.

A characteristic of immigrants is that they generally move from an area with a fertility regime which differs from the receiving country. This is clearly true of New Zealand as well, and applies to both male and female fertility. In the case of women, an analysis of the data shows that there is a discernible trend. Women in the same birth cohorts and the same current ethnicity tend to have different numbers of children on average depending on the age at which they arrived in New Zealand to live and where they were born. Thus, women from higher fertility areas have greater numbers of children on average if they arrived more recently than similar women who arrived earlier in their childbearing years. The principal reason for this trend is that women tend to be influenced by their environment and tend to adopt the patterns of the geographic locality in which they find themselves.

Women from areas of historically low fertility such as Northern Europe and East Asia tend to be influenced by the slightly higher levels of the New Zealand-based European and Asian communities, but generally retain lower fertility than the norm for European and Asian populations in New Zealand. In contrast, women of Pacific ethnicities who arrived in New Zealand at a relatively young age, from significantly higher fertility regimes, tend to maintain higher fertility levels than the norm for women of Māori ethnicity but lower than their peers who finished childbearing prior to arrival in New Zealand.

¹ In the case of inter-ethnic partnerships this is a complex issue because cultural and ancestral factors intertwine asymmetrically. Not only will the propensity to form an inter-ethnic union vary for males and females from two different ethnic backgrounds, but having formed a union it is unlikely the relative influence on fertility decisions for the respective partners will operate in the same way. Thus, for example, the frequency and the fecundity of Pacific/European unions is likely to differ from European/Pacific unions.

Chapter 4

Fertility and Ethnicity: The Socio-Economic Context

This short chapter briefly recaptures salient aspects of fertility and ethnicity covered in the previous research report (Statistics New Zealand, 2001) as background to the more detailed analysis in the present report.

In the 1996 Census, there were 1,283,823 women aged 15 years and over, usually resident in New Zealand, who specified the number of children they had given birth to (table 2). In general, fertility for each ethnic group is intrinsically linked to its social history. For Pacific and Asian women in particular, immigration has affected both the timing of childbearing and their ultimate family size. The fertility of immigrants may also include a significant number of overseas births. Table 4 shows the average number of children born for all women by age group and ethnicity. Overall, Asian and European women have much lower fertility than Māori and Pacific women, but the gap is showing signs of converging, as can be seen by comparing women in their 40s with those in the older age groups. Moreover, the general trend among cohorts that have completed or nearly completed their childbearing is towards fewer children.

Table 4

Average Number of Children Born per Woman by Age Group and Ethnicity

Age Group (Years)	Ethnicity ⁽¹⁾				
	European	Māori	Pacific	Asian	Other
15-19	0.03	0.13	0.08	0.02	0.03
20-24	0.27	0.76	0.53	0.15	0.30
25-29	0.79	1.61	1.42	0.65	0.89
30-34	1.56	2.32	2.20	1.25	1.76
35-39	2.10	2.75	2.88	1.79	2.18
40-44	2.29	2.98	3.25	2.09	2.50
45-49	2.38	3.22	3.55	2.28	2.43
50-54	2.60	3.74	3.82	2.61	2.71
55-59	2.88	4.34	4.31	3.08	3.24
60-64	3.11	4.73	4.76	3.48	3.32
65 and over	2.79	4.62	4.89	3.62	3.33
Total	1.89	2.12	2.08	1.37	1.63
Age Standardised					
Total	1.83	2.79	2.84	1.88	2.02

Source: 1996 Census of Population and Dwellings

(1) People may have more than one ethnicity and may be counted in more than one category

It is worth repeating that when we considered socio-economic factors alongside fertility patterns, we concluded that the crucial limitation of this data is that it has no history – we are constrained to observe outcomes rather than processes. Hence we can examine the patterns at a single point in time but not observe the creation of the patterns. While we can compare data from one census with the data from other censuses, we can only do so at the aggregate level. We cannot be sure we are actually dealing with the same people, so we can only tentatively suggest possible relationships between the observed outcomes and longitudinal processes. For example, we may examine the labour force outcomes of fertility decisions without being able to consider the fertility outcomes of labour force status. This is very similar to the problem we discuss below – we can examine ways in which ethnicity and fertility correspond but not how this happens or why.

Considering factors in isolation provides no more than part of the equation. Social processes are always complex, and involve the simultaneous interaction of many factors. The level of fertility is one of the outcomes of a raft of interacting conditions at the same time as being a causal element in the outcome of some of the factors that contribute to fertility outcomes. For example, while marital status was historically important in terms of assessing the regular availability of partners and a propitious environment for children, it is much less so now. Partnered mothers still vastly outnumber non-partnered mothers and are expected to do so for the foreseeable future (Statistics New Zealand, 2003). However, in combination with contraception, careers and education, the regular presence or absence of a partner is by no means related directly to fertility outcomes.

A much stronger relationship is found between labour force status and fertility. Work experience and availability, together with the benefits of careers and the material benefits these imply, are significant drivers in the decisions to bear children and in the development of social mechanisms to ensure their well-being. These decisions should not be seen necessarily as calculated at an individual level, but may be seen as collective expectations from a set of conditions.

Education is the linch-pin in this scenario. Education not only provides women with independent access to information they may otherwise be excluded from, it also provides access to a wider range of occupational opportunities. This may take the form of a career, around which a family needs to be carefully planned. While the interrelationship between labour force status and education is much more complex than between education and occupation, for example, the relationship between the two and fertility is less so. The causal link between education and fertility is stronger in this direction than the reverse. Similarly, the link between fertility and labour force status indicates that fertility decisions have outcomes for a woman's labour force status and income not just at the time of childbearing, but also later in life. However, this effect is related to education and the link between education and both fertility and labour force status is the key.

Perhaps the most significant outcome of recent fertility changes, though, is the growth of the childless female population. Childless women have quite different opportunities and needs than women who are caring for children or who have had children. The stigmatising of childless women as selfish and unpatriotic, characteristic of the 1930s, has long vanished, as has, almost, the view that these women are somehow deficient. For women born in the late 1930s and 1940s (the first of the baby-boom babies and the source of the majority of mothers during the 1960s and aged 46–66 years in 1996), the proportion remaining childless was around 9 percent. This percentage is similar for all women, irrespective of ethnicity (table 5). However, for Asian and European women born a little later, in the 1950s, the proportion remaining childless rose to around 11.5 percent. The rise for Māori and Pacific women was much smaller, resulting in a divergence by ethnicity of women not bearing children.

The social and economic topography of New Zealand within which childbearing fits has undergone some major shifts in recent decades. Moreover, childbearing is a social function enmeshed in a web of prejudices and fictions. Examples of those prejudices have been alluded to in this study, such as an historic stigmatising of childless women and unmarried mothers. Similarly, particular subgroups have been assumed to have particular behaviours: for example, people of one or other religion having more children than other groups. It has been shown that in New Zealand, if religious affiliation was ever a driver, it certainly is no longer a significant factor.

Table 5

Childless Women by Age Group and Ethnicity

Age Group (Years)	Ethnicity ⁽¹⁾				
	European	Māori	Pacific	Asian	Other
	Percent				
15-19	96.9	88.9	93.4	98.6	97.4
20-24	80.9	53.5	66.2	88.8	80.0
25-29	56.5	30.2	34.7	58.0	50.4
30-34	29.5	16.8	19.4	30.7	25.4
35-39	16.4	11.9	11.7	17.1	16.1
40-44	12.1	9.7	8.8	11.2	12.9
45-49	10.4	8.8	7.5	10.6	11.2
50-54	9.6	9.0	8.9	10.8	11.5
55-59	8.9	9.2	9.7	9.3	8.8
60-64	9.1	10.4	10.9	8.7	11.1
65 and over	14.2	12.5	12.1	8.8	11.7
Total	31.3	33.0	36.8	42.7	38.6

Source: 1996 Census of Population and Dwellings

(1) People may have more than one ethnicity and may be counted in more than one category

The ethnic and geographic spaces are two important components of New Zealand society. These two complex components form the focus of this report, though the ethnic component is primary. Not only do they reveal a very strong diversity in the patterns in childbearing, they are key structures within which the socio-economic processes operate, at the same time as being defined in significant ways by these processes.

A set of related issues affect men as well, but this study has largely been unable to consider the many important and interesting aspects of male fertility. We do not in general have data on male fertility, and what data is available is not amenable to analysis that would lead to secure conclusions.

Chapter 5

Where Women Live: The Spatial Context

New Zealand is ethnically diverse, but this diversity varies across different parts of the country. This is an extremely important aspect of the population, since the variations in geographic distribution contribute significantly to some of the apparent differentials between people of different ethnicities. Equally, the converse is true, so that the ethnic composition of local populations contributes to the characteristics of the area.

Table 6

Geographic Distribution of Women by Ethnicity and Age Group

Ethnicity, Area Type and Island	Age Group (Years)				Total
	15 to 29	30 to 44	45 to 64	65 and over	
	Percent				
European					
North Island Main Urban	55.0	51.6	50.6	51.1	52.1
North Island Other Urban	8.7	9.7	11.1	14.0	10.6
North Island Rural	7.5	10.7	10.0	4.9	8.6
South Island Main Urban	19.0	16.3	16.3	18.8	17.5
South Island Other Urban	5.5	5.7	6.3	8.1	6.2
South Island Rural	4.2	6.0	5.8	3.1	5.0
Total	100.0	100.0	100.0	100.0	100.0
Māori					
North Island Main Urban	59.1	55.7	52.8	46.7	56.2
North Island Other Urban	17.1	18.3	18.7	21.2	18.0
North Island Rural	10.9	14.6	17.5	21.2	13.9
South Island Main Urban	8.2	6.4	5.9	6.2	7.1
South Island Other Urban	2.8	2.7	2.7	3.0	2.8
South Island Rural	1.8	2.2	2.3	1.8	2.1
Total	100.0	100.0	100.0	100.0	100.0
Pacific					
North Island Main Urban	87.3	87.4	87.7	88.2	87.5
North Island Other Urban	4.5	4.6	4.9	5.5	4.7
North Island Rural	1.8	2.1	2.2	2.0	2.0
South Island Main Urban	5.5	4.8	4.3	3.4	4.9
South Island Other Urban	0.6	0.6	0.5	0.6	0.6
South Island Rural	0.3	0.4	0.4	0.2	0.3
Total	100.0	100.0	100.0	100.0	100.0
Asian					
North Island Main Urban	77.8	82.2	81.7	82.5	80.4
North Island Other Urban	2.9	3.5	4.8	4.4	3.5
North Island Rural	1.5	2.0	2.2	1.9	1.8
South Island Main Urban	15.6	10.0	9.2	9.4	12.0
South Island Other Urban	1.6	1.5	1.3	1.3	1.5
South Island Rural	0.6	0.8	0.7	0.5	0.7
Total	100.0	100.0	100.0	100.0	100.0

Source: 1996 Census of Population and Dwellings

While people of Asian and Pacific ethnicities are by far the most urbanised (table 6), at 97.5 and 97.7 percent respectively, the distribution among the urban areas is quite different. North Island main urban areas are home to 87 percent of Pacific women, but only 80 percent of Asian women live in these areas. Proportionally more Asian women live in a South Island main urban area than do Pacific women. Asian women also tend to prefer South Island main urban areas above North Island secondary or minor urban areas. Pacific women are slightly more likely to live in North Island secondary and minor urban areas than they are to live anywhere in the South Island.

Māori and European women, on the other hand, are rather less urbanised, with 16.0 and 13.6 percent respectively living in rural areas. Again the difference between North Island and South Island is apparent. Māori women, with 11.9 percent in the South Island, are much less represented than are European women (28.7 percent), or Asian women (14.2 percent), and Māori women in the South Island are more likely to live in a rural area than their North Island counterparts.

Conversely, all areas in the South Island have much higher proportions of European women than any North Island area. Of the women who specified their ethnicities and live in North Island main urban areas, 80 percent are of European ethnicities, with around 85 percent of the women in other North Island areas being of European ethnicities. In the South Island, the equivalent percentages are 93 and 96, respectively (table 7).

Table 7

Geographic Distribution of Women by Ethnicity and Area Type

Area Type and Island	Ethnicity			
	European	Māori	Pacific	Asian
	Percent			
North Island Main Urban	80.0	12.5	7.4	7.2
North Island Other Areas	84.9	20.5	1.6	1.4
South Island Main Urban	93.2	5.5	1.4	3.7
South Island Other Areas	96.3	6.0	0.5	1.1
Total	84.7	12.3	4.6	4.9

Source: 1996 Census of Population and Dwellings

The diversity within these geographic categories is often very high and some special characteristics of specific areas, such as the presence of a university or other educational or cultural facilities, affects factors such as age distribution.

We turn now to the relationship between the spatial pattern and fertility of the women concerned. Table 8 provides a very basic overview of the average number of children per woman in a form symmetrical to table 6. The average number of children is given for women in each of the geographic categories for each of the broad age groups and ethnic groups, along with an average standardised to eliminate the effect of the differing age structures in the various categories.

Larger urban areas tend to exhibit lower fertility than either the smaller urban areas or rural areas for women of European and Māori ethnicities. However, this does not hold so clearly for Pacific and Asian women, who tend to include a larger number of overseas-born women and tend to choose to live in the larger cities. For Pacific women, this is almost entirely due to the dominance of Auckland in the population, with only a small proportion of their population living outside that area. This is also true to a lesser extent for Asian women. A significant proportion of the younger members of this group choose to live in the South Island main urban areas with strong tertiary education facilities.

Only in the main urban areas is the age-adjusted average number of children higher for Pacific women than it is for Māori women. The most probable explanation of this is to be found in the relationship between the overseas-born and the locally-born population and the degree of integration between the group and their social environment. This is exactly paralleled by Asian and European women, where Asian women have on average slightly more children than European women in the main urban areas when adjusted for differences in the age structure of the group.

Table 8

Average Number of Children
For women by ethnicity and area type

Ethnicity, Area Type and Island	Age Group (Years)					Age Adjusted Total
	15 to 29	30 to 44	45 to 64	65 and over	Total	
European						
North Island Main Urban	0.33	1.83	2.56	2.66	1.74	1.73
North Island Other Urban	0.60	2.26	2.89	3.02	2.26	2.06
North Island Rural	0.56	2.33	2.93	3.36	2.21	2.15
South Island Main Urban	0.30	1.86	2.62	2.66	1.75	1.74
South Island Other Urban	0.47	2.12	2.89	3.03	2.16	1.99
South Island Rural	0.48	2.23	2.95	3.28	2.18	2.09
Total	0.38	1.97	2.69	2.79	1.89	1.83
Māori						
North Island Main Urban	0.76	2.56	3.76	4.35	1.98	2.69
North Island Other Urban	0.95	2.87	4.09	4.86	2.39	3.00
North Island Rural	0.96	2.81	4.15	5.51	2.66	3.10
South Island Main Urban	0.55	2.35	3.13	3.40	1.59	2.26
South Island Other Urban	0.74	2.56	3.48	4.03	1.98	2.56
South Island Rural	0.78	2.44	3.35	4.20	2.04	2.52
Total	0.79	2.64	3.83	4.62	2.12	2.79
Pacific						
North Island Main Urban	0.66	2.70	3.99	4.95	2.09	2.86
North Island Other Urban	0.81	2.77	3.99	4.60	2.21	2.86
North Island Rural	0.82	2.58	3.36	4.73	2.12	2.67
South Island Main Urban	0.47	2.61	3.70	4.47	1.74	2.65
South Island Other Urban	0.67	2.45	3.55	2.57	1.79	2.25
South Island Rural	0.58	2.67	2.51	4.00	1.89	2.37
Total	0.66	2.69	3.96	4.89	2.08	2.84
Asian						
North Island Main Urban	0.25	1.68	2.64	3.62	1.39	1.88
North Island Other Urban	0.58	1.88	2.76	3.64	1.76	2.04
North Island Rural	0.53	2.02	2.78	3.85	1.80	2.14
South Island Main Urban	0.13	1.62	2.56	3.72	1.07	1.84
South Island Other Urban	0.18	1.48	2.60	2.81	1.16	1.65
South Island Rural	0.33	1.69	2.38	2.86	1.39	1.78
Total	0.25	1.68	2.64	3.62	1.37	1.88

Source: 1996 Census of Population and Dwellings

The aim in this chapter has been to provide an overview of ethnic groups as a whole. In the next chapter, the compositional structure and the diversity within each group is discussed. The relationship between the ethnic and geographic environments is particularly significant as a source of diversity of fertility patterns we find in the data.

Chapter 6

Fertility of Women of Selected Ethnic Groups

6.1 Fertility of women of European ethnicities

Among those who specified ethnicity, women of European ethnicities comprise 84.7 percent of the female adult population compared with 12.3, 4.6, 4.9 and 0.4 percent for women of Māori, Pacific, Asian and Other ethnicities respectively. Thus, it may be assumed that European women most closely resemble the total female adult population at the national level. However, there exists significant diversity in the spatial distributions of the various ethnic populations in New Zealand, as well as in their age structures, so this does not necessarily follow for particular age groups or geographic areas. For example, women of European ethnicities have quite different age structures from women of other ethnicities, and because these differences vary spatially the characteristics of European women are significantly different from the total population.

The 1996 Census provided us with useful insight into the European population of New Zealand because of the design of the census question. More than for any other grouping of ethnicities, the question encouraged people to identify specific ethnicities within the European group. This resulted from the presence of the side-bar tickboxes. The disquiet some people have with the use of the terms “NZ European” and “Pākehā” as descriptors for the largest category in New Zealand also may have been a significant factor. In no previous census, nor the subsequent census, did so many respondents provide information at this level for the European ethnicities with available tickboxes. One reason for suspecting that this was related to questionnaire design is that ethnicities were not provided by respondents at a comparable level of detail for Asian, Pacific or other ethnicities for whom the questionnaire did not have tickboxes in 1996.

While European women in general have fertility below replacement level (table 9), there is a degree of diversity within the group. Not only do women of different ethnicities within the European grouping have quite different numbers of children on average, individual groups show significant differences according to whether they were born in New Zealand or not. In many cases the overseas-born group has substantially lower fertility than the New Zealand-born group, even for long established groups such as the English. One of the factors which helps explain this is that those born overseas have generally come from countries in Europe with much lower fertility regimes than this country for the equivalent age groups. Another explanatory factor is that women from European countries, in particular, may be less likely to be able to migrate if they have a larger family already, since they are more distant and generally have fewer opportunities for family or institutional assistance to migrate.

This is clearly demonstrated by the fact that the immigrant groups have lower fertility in general than do the source countries (compare table 2.09 in Statistics New Zealand, 2002). This also applies to the older age groups, many of whom may have migrated from the United Kingdom under the assisted-passage and refugee resettlement programmes in the early years following World War II.

The length of time the European sector of the population has lived in New Zealand has enabled it to settle more completely into a stable geographic distribution than other immigrant groups. Even so, the choice of residential location varies significantly for the New Zealand-born and overseas-born components. This contributes to the spatial diversity of fertility levels among European women (as it does with women of other ethnicities). Linked to this is the interrelationship between people of differing ethnicities as the ethnic mix of the local population varies from area to area. Thus, ethnicity and spatiality form a pair of competing factors in patterns of fertility.

Table 9

Average Number of Children
 For women by selected European ethnicities and birthplace

Ethnicity	New Zealand-born			Overseas-born			Total		
	Number of Women	Average Number of Children		Number of Women	Average Number of Children		Number of Women	Average Number of Children	
		Unadjusted	Age Adjusted		Unadjusted	Age Adjusted		Unadjusted	Age Adjusted
NZ European	882,384	1.87	1.87	44,706	1.96	1.67	936,168	1.88	1.86
English	34,239	1.93	1.96	79,734	1.99	1.60	115,095	1.97	1.70
Other British	23,763	1.93	2.02	17,436	2.07	1.59	41,586	1.99	1.83
Irish	18,615	1.94	2.10	7,767	2.04	1.68	26,679	1.97	1.96
Dutch	6,174	1.30	1.99	10,149	2.44	1.91	16,413	2.01	1.95
Australian	3,699	1.55	2.06	16,017	1.82	1.73	19,953	1.77	1.78
German	1,689	1.48	2.13	3,288	1.51	1.47	5,007	1.50	1.64
Welsh	1,323	1.69	1.92	2,559	1.97	1.62	3,906	1.88	1.71
French	1,272	1.81	2.22	903	1.61	1.61	2,193	1.73	1.93
Italian	957	1.26	1.96	825	1.84	1.61	1,797	1.54	1.72
Danish	732	1.83	2.06	597	1.79	1.55	1,338	1.82	1.81
Spanish	696	1.76	2.37	318	1.63	1.76	1,026	1.73	2.15
Greek	582	0.94	1.62	675	2.07	1.62	1,269	1.53	1.58
Swiss	378	1.20	2.06	924	1.66	1.51	1,308	1.53	1.60
American	336	1.36	2.20	2,481	1.40	1.49	2,826	1.39	1.55
Swedish	243	1.81	2.06	468	1.14	1.41	714	1.37	1.63
Canadian	237	1.20	2.66	1,776	1.55	1.54	2,019	1.52	1.61
Hungarian	177	1.01	1.90	387	1.77	1.44	570	1.53	1.46
Austrian	153	1.11	2.08	384	1.56	1.32	540	1.44	1.38
Russian	111	1.32	2.36	591	1.40	1.35	714	1.38	1.42
South African	69	0.93	1.28	2,340	1.60	1.63	2,418	1.58	1.63
Other European	8,514	1.65	1.91	10,953	1.73	1.54	19,701	1.70	1.68

Source: 1996 Census of Population and Dwellings

Levels of multiple ethnicity are reflected in fertility patterns. As can be seen from table 10 (which includes only women who specified their birthplace), the average number of children to which a woman will be expected to have given birth varies, depending on the mix of ethnicities being reported by her and by birthplace. This pattern persists even when differences in age structures, and the type of geographic area she has chosen to live in, have been taken into account.

However, in general, not only have the overseas-born women had fewer children than the equivalent New Zealand-born women, but the differences between them increase with rurality. There is also a decrease in the proportion of women born overseas in different area types as rurality increases. For example, while over 15 percent of all women are overseas-born, less than 9 percent of women in rural South Island were born overseas, in contrast to over 18 percent of those in North Island main urban areas.

The admixture of Māori and/or Pacific ethnicities with European ethnicities seems to result in generally higher fertility, though this pattern seems to be largely dependent on the area of residence. However, caution is needed as some of the areas have relatively few women in the subject group. It may, at least for women of Pacific ethnicities, be assumed that this is influenced by the women who have adopted European ethnicities in New Zealand over the course of their lives.² In a sense, women of both European and Pacific or Māori ethnicities derive their characteristics in this respect more from the non-European group, than from the European group. It is much less clear among combinations of European ethnicities and other ethnicities – predominantly these are women who are both of European and Asian ethnicities – because the fertility levels and dynamics of the two contributing groups are very similar.

² This illustrates how complex the interrelationship between ethnicities is, especially in cases where socio-economic factors are also interacting with spatial factors. There is a relationship between the propensity for a person to identify with an ethnicity and their choice of location or social environment. It is not clear whether ethnicity is the driver or the consequence, and it is likely that a change in one characteristic may result in the other changing.

Table 10

Average Number of Children for European Women
By ethnicity and area type

Area Type and Island	Ethnicity					Total European
	European Only	European and Māori Only	European and Pacific Only	European, Māori and Pacific	European and Other Combinations	
Average number of children per woman						
North Island Main Urban	1.76	1.60	1.50	1.31	1.15	1.74
North Island Other Urban	2.28	2.02	1.82	1.63	1.74	2.26
North Island Rural	2.22	2.15	1.83	1.55	1.96	2.21
South Island Main Urban	1.77	1.39	1.17	1.31	1.01	1.75
South Island Other Urban	2.17	1.81	1.62	1.72	1.63	2.16
South Island Rural	2.20	1.85	1.77	2.00	1.68	2.18
Total	1.91	1.72	1.51	1.37	1.25	1.89
Age adjusted average number of children per woman						
North Island Main Urban	1.69	2.30	2.41	2.68	1.74	1.73
North Island Other Urban	2.02	2.68	2.55	2.75	2.09	2.06
North Island Rural	2.11	2.68	2.15	2.55	2.48	2.15
South Island Main Urban	1.73	2.09	2.24	2.10	1.73	1.74
South Island Other Urban	1.98	2.38	2.29	1.95	2.10	1.99
South Island Rural	2.08	2.37	2.21	1.42	1.82	2.09
Total	1.80	2.40	2.40	2.64	1.83	1.83
Number of Women	1,010,619	60,837	9,144	1,887	6,027	1,088,514

Source: 1996 Census of Population and Dwellings

While patterns based on birthplace of women reveal that the choice of rural/urban location and the number of children are dependent on each other, many factors contribute to this. For example, rural women tend to have more limited access to advanced education than do urban women, and there is a well-established inverse relationship between educational achievement and fertility. This also partly reflects varying urban/rural cost-of-living and income differentials.

Inter-island differences are also seen among New Zealand women. North Island smaller centres and rural areas tend to have higher fertility (or more precisely, provide a more likely choice of residence for larger families) than the North Island main urban areas, while this is less marked in the South Island. A significant driver behind this is the relative distribution of the Māori urban and rural population and the relationship between people of Māori and European ethnicities in these areas. A similar interaction is noted, in particular, for the larger and main North Island urban areas with respect to people of European and Pacific ethnicities. At least part of this is the result of the different ways in which South Island urban and rural areas interface with each other when compared to those in the North Island. For example, a rural area near Auckland is extremely different typologically than one, say, in South Westland.

A comparative analysis of marital status and the number of children a woman has given birth to shows some interesting and unexpected patterns. Table 11 shows the age-adjusted averages for European women in North Island urban and rural areas. Increasing rurality is associated with an increasing average number of children for each marital status. In general, too, partnered women tend to have had more children than non-partnered women. The patterns are similar, though less marked, among women in the South Island, partly because of the relative size and spacing of urban centres.

Fertility of New Zealand Women by Ethnicity

Table 11

Average Number of Children for European Women
By ethnicity, marital status and area type

Area Type and Marital Status	Ethnicity						Population
	European Only	European and Māori Only	European and Pacific Only	European, Māori and Pacific	European and Other Combinations	Total European	
Age Adjusted Average Number of Children							Number
North Island Main Urban							
Legally Married	1.93	2.51	2.67	2.81	2.12	1.97	270,456
Partnered - Other	1.52	2.45	2.20	2.16	1.45	1.58	52,461
Not Partnered	1.39	2.16	2.16	2.58	1.48	1.44	228,378
Total (incl not specified)	1.69	2.30	2.41	2.68	1.74	1.73	567,672
North Island Other Urban							
Legally Married	2.22	2.89	2.88	2.64	2.25	2.26	59,979
Partnered - Other	1.90	2.53	0.78	1.09	1.72	1.98	9,315
Not Partnered	1.76	2.51	2.48	2.63	1.89	1.83	42,546
Total (incl not specified)	2.02	2.68	2.55	2.75	2.09	2.06	115,128
North Island Rural							
Legally Married	2.31	2.80	2.22	2.62	2.91	2.34	60,780
Partnered - Other	1.81	3.44	1.15	0.94	1.02	1.93	9,051
Not Partnered	1.72	2.52	2.31	1.46	1.60	1.79	22,332
Total (incl not specified)	2.11	2.68	2.15	2.55	2.48	2.15	93,930
Total New Zealand (incl South Island)							
Legally Married	2.04	2.60	2.66	2.75	2.12	2.07	551,154
Partnered - Other	1.64	2.52	2.10	2.13	1.67	1.70	95,796
Not Partnered	1.48	2.23	2.16	2.53	1.55	1.53	411,393
Total (incl not specified)	1.80	2.40	2.40	2.64	1.83	1.83	1,088,514

Source: 1996 Census of Population and Dwellings

Table 12

Average Number of Children for European Women
By ethnicity, religious status and area type

Area Type and Religious Status	Ethnicity						Population
	European Only	European and Māori Only	European and Pacific Only	European, Māori and Pacific	European and Other Combinations	Total European	
Age Adjusted Average Number of Children							Number
North Island Main Urban							
Religion Specified	1.72	2.35	2.46	2.66	1.81	1.75	399,957
No Religion	1.60	2.02	2.20	1.74	1.46	1.62	127,860
Object to Stating	1.66	2.31	2.14	2.55	1.58	1.70	31,524
Total	1.69	2.30	2.41	2.68	1.74	1.73	567,672
North Island Other Urban							
Religion Specified	2.03	2.69	2.64	2.87	2.04	2.07	86,556
No Religion	1.91	2.42	1.92	1.01	1.66	1.94	20,118
Object to Stating	2.02	2.72	1.80	1.27	3.58	2.08	6,813
Total	2.02	2.68	2.55	2.75	2.09	2.06	115,128
North Island Rural							
Religion Specified	2.15	2.75	2.18	2.35	2.31	2.19	66,990
No Religion	1.93	2.34	1.36	1.17	2.62	1.96	20,103
Object to Stating	2.01	2.33	1.81	0.23	1.50	2.04	5,451
Total	2.11	2.68	2.15	2.55	2.48	2.15	93,930
Total New Zealand (incl South Island)							
Religion Specified	1.83	2.44	2.45	2.65	1.87	1.86	785,979
No Religion	1.69	2.13	2.21	1.66	1.58	1.71	227,493
Object to Stating	1.77	2.33	2.14	2.63	1.90	1.81	59,733
Total	1.80	2.40	2.40	2.64	1.83	1.83	1,088,514

Source: 1996 Census of Population and Dwellings

Table 13

Average Number of Children for European Women*By ethnicity, marital status and religious status*

Marital Status and Religious Status	Ethnicity						Population
	European Only	European and Māori Only	European and Pacific Only	European, Māori and Pacific	European and Other Combinations	Total European	
	Age Adjusted Average Number of Children						Number
Legally Married							
Religion Specified	2.06	2.64	2.70	2.75	2.11	2.09	431,736
No Religion	1.93	2.35	2.31	1.68	1.85	1.95	86,088
Object to Stating	2.01	2.51	2.49	2.03	2.55	2.05	27,327
Total	2.04	2.60	2.66	2.75	2.12	2.07	551,154
Partnered - Other							
Religion Specified	1.66	2.63	2.28	1.86	1.68	1.73	50,874
No Religion	1.49	1.60	0.99	1.15	0.81	1.51	37,566
Object to Stating	1.76	2.46	1.07	0.60	0.72	1.82	5,793
Total	1.64	2.52	2.10	2.13	1.67	1.70	95,796
Not Partnered							
Religion Specified	1.47	2.27	2.18	2.51	1.55	1.52	281,832
No Religion	1.47	1.98	2.25	1.23	1.52	1.50	98,340
Object to Stating	1.52	2.20	1.96	1.79	1.63	1.58	24,717
Total	1.48	2.23	2.16	2.53	1.55	1.53	411,393
Total							
Religion Specified	1.83	2.44	2.45	2.65	1.87	1.86	785,979
No Religion	1.69	2.13	2.21	1.66	1.58	1.71	227,493
Object to Stating	1.77	2.33	2.14	2.63	1.90	1.81	59,733
Total	1.80	2.40	2.40	2.64	1.83	1.83	1,088,514

Source: 1996 Census of Population and Dwellings

Women of advanced age who are alone tend to live in main urban areas where care facilities are more readily available. Because those in the older age groups tend to have had more children, this will tend to raise the average number of children for these areas. However, this is more than offset by the number of young non-partnered women still in education or who have not yet started a family. The data in table 13 is age-adjusted to account for these differences.

Rural areas might have been expected to be more conservative than urban areas with respect to formal marriage and childbearing, yet we find that these expectations are not clearly reflected in the data. Relative to urban areas, rural women are more likely to be either legally married or unpartnered, rather than to be living in other partnerships. Rural women overall have a larger average number of children, with married women tending to have more children than unpartnered women. However, for both urban and rural women, increasingly marriage, if it eventuates, tends to follow rather than precede the onset of childbearing. This is quite different from the situation in the past where marriage was associated with pregnancy.

Similar lack of differentiation can be seen when we look at the relationship between location and religion. Again, as table 12 shows for women living in the North Island, generally, the degree of rurality and, more especially, differences in ethnicity exceed differences due to religious affiliation by a substantial margin. However, while women of only European ethnicities reflect very little impact of religious affiliation on their fertility, European women who also have Pacific ethnicities do tend to have higher fertility than those specifically stating they have no religion. This presumably reflects more general cultural preferences specifically associated with Pacific ethnicities rather than being simply due to religious factors.

However, for all European mothers, there is a correlation between the propensity to state a religious affiliation and the propensity to be partnered, and those who are partnered are likely to have had more children than those who are not partnered. Among all European women (table 13), women of European ethnicities only, or with a combination of European and Pacific ethnicities, have higher fertility among the legally married than women in other partnerships, whereas this is not a feature of women of both European and Māori ethnicities.

Table 14

Average Number of Children for European Women
 By ethnicity, marital status, religious status and highest qualification

Marital Status, Religious Status and Highest Qualification	Ethnicity						Total European	Population
	European Only	European and Māori Only	European and Pacific Only	European, Māori and Pacific	European and Other Combinations			
Age Adjusted Average Number of Children								
							Number	
Legally Married								
Religion Specified								
Tertiary Qualification	1.92	2.42	2.48	2.31	1.94	1.95	147,408	
Secondary Qualification	2.05	2.48	2.63	2.63	2.24	2.07	139,578	
No Qualification	2.32	2.96	2.98	2.97	2.38	2.36	142,260	
Total (incl Not Specified)	2.06	2.64	2.70	2.75	2.11	2.09	431,736	
No Religion								
Tertiary Qualification	1.78	2.09	1.56	0.47	1.40	1.78	32,622	
Secondary Qualification	1.90	2.52	1.46	1.67	1.67	1.93	30,684	
No Qualification	2.21	2.53	2.25	1.23	2.10	2.23	22,557	
Total (incl Not Specified)	1.93	2.35	2.31	1.68	1.85	1.95	86,088	
Partnered - Other								
Religion Specified								
Tertiary Qualification	1.38	2.22	1.32	0.82	0.96	1.43	18,996	
Secondary Qualification	1.60	2.48	1.26	1.08	1.24	1.65	19,638	
No Qualification	2.07	2.99	2.42	1.84	2.27	2.16	12,060	
Total (incl Not Specified)	1.66	2.63	2.28	1.86	1.68	1.73	50,874	
No Religion								
Tertiary Qualification	1.24	1.14	0.95	0.37	0.74	1.25	14,784	
Secondary Qualification	1.44	1.15	0.56	0.64	0.84	1.46	15,111	
No Qualification	1.96	2.00	1.23	1.47	0.86	2.00	7,605	
Total (incl Not Specified)	1.49	1.60	0.99	1.15	0.81	1.51	37,566	
Not Partnered								
Religion Specified								
Tertiary Qualification	1.21	1.83	1.66	2.33	1.36	1.24	76,239	
Secondary Qualification	1.46	2.18	2.17	2.45	1.43	1.51	100,569	
No Qualification	1.79	2.62	2.55	2.73	2.07	1.87	102,258	
Total (incl Not Specified)	1.47	2.27	2.18	2.51	1.55	1.52	281,832	
No Religion								
Tertiary Qualification	1.17	1.68	2.01	1.11	0.84	1.19	30,114	
Secondary Qualification	1.45	1.73	1.36	0.34	1.80	1.47	43,137	
No Qualification	1.92	2.41	2.60	1.13	1.63	1.96	24,801	
Total (incl Not Specified)	1.47	1.98	2.25	1.23	1.52	1.50	98,340	
Total								
Religion Specified								
Tertiary Qualification	1.68	2.13	2.12	2.46	1.69	1.70	247,734	
Secondary Qualification	1.83	2.32	2.36	2.58	1.91	1.85	266,550	
No Qualification	2.05	2.76	2.77	2.86	2.21	2.11	265,515	
Total (incl Not Specified)	1.83	2.44	2.45	2.65	1.87	1.86	785,979	
No Religion								
Tertiary Qualification	1.47	1.87	2.13	1.28	1.10	1.48	79,152	
Secondary Qualification	1.69	2.06	1.51	1.46	1.68	1.70	91,062	
No Qualification	2.04	2.45	2.63	1.67	1.94	2.07	56,625	
Total (incl Not Specified)	1.69	2.13	2.21	1.66	1.58	1.71	227,493	

Source: 1996 Census of Population and Dwellings

While there are relationships between the number of children and marital status, this is socially conditioned by history to a large extent, as is religious affiliation. These are not primary drivers but are consequences of deciding to have children, either in the past, in the immediate future or at some later time. For the primary driver behind fertility outcomes, in particular the number of children a woman chooses to have, we need to look elsewhere.

As was discussed in the previous report on socio-economic factors (Statistics New Zealand, 2001), the place to look for this primary driver is educational achievement. It is especially interesting to look at this issue by ethnicity since ethnicity has direct links to the mores of specific geographic regions of the world. Education for women has a longer history in some regions than in others, with Northern Europe (the ultimate source of the ethnic milieu of more than three-quarters of the European population in New Zealand) having a longer history than most. While there are exceptions, such as China, many areas in the world, in modern times at least, promoted female education rather more recently and less actively.

The effect that educational achievement has on the number of children³ born by a woman can be clearly seen in table 14. Education rather than either marital status or religious affiliation is the driver. Interestingly, educational achievement does not dominate the differences between women of different ethnic mixes, though these differences are related at least in part to the relationship between historical access to education for these women and their fertility outcomes. While we can learn much from simple analysis of data, we should always do so with caution. Apparent differences seen across one set of characteristics may in fact be the result of a completely different set of factors or be an artefact of differences between particular sub-groups within the subject population.

In the above example, the differences due to marital status and religion can be partially explained by spatial and ethnic factors. But at a deeper level, the ethnic differences are also conditioned by differences in access to education and the consequential educational achievement of women, and by their related choices of location. There is an important spatial component in access to education. The more rural, or the poorer the urban residential area, the greater we find the level of educational deprivation.

6.2 Fertility of women of Māori ethnicity

The 169,581 women who stated that they were of Māori ethnicity in the 1996 census had an average number of children of 2.12 children per woman, which would put their fertility slightly above the theoretical replacement level for New Zealand of 2.1 children per woman on average.⁴ However, the former figure – the average number of children born – is age dependent whereas the latter total fertility rate is independent of age. Māori women have a young age structure, so that a relatively large proportion of them has not yet completed their childbearing. When we adjust the average number of children to account for the difference in age structure,⁵ we find that, had they had the same age structure as the total adult female population, they would have had on average 2.79 children per woman (table 15).

Table 15

Average Number of Children for Māori Women
By ethnicity and area type

Area Type and Island	Ethnicity					Total Māori
	Māori Only	Māori and Pacific Only	European and Māori Only	European, Māori and Pacific	Māori and Other Combinations	
Average Number of Children per Woman						
North Island Main Urban	2.33	1.41	1.60	1.31	1.44	1.98
North Island Other Urban	2.63	1.72	2.02	1.63	2.02	2.39
North Island Rural	2.97	2.48	2.15	1.55	2.34	2.66
South Island Main Urban	1.91	1.26	1.39	1.31	1.07	1.59
South Island Other Urban	2.20	1.34	1.81	1.72	2.29	1.98
South Island Rural	2.34	2.35	1.85	2.00	1.63	2.04
Total	2.46	1.52	1.72	1.37	1.60	2.12
Age Adjusted Average Number of Children per Woman						
North Island Main Urban	2.93	3.14	2.30	2.68	2.47	2.69
North Island Other Urban	3.16	3.69	2.68	2.75	2.95	3.00
North Island Rural	3.27	3.33	2.68	2.55	3.09	3.10
South Island Main Urban	2.47	2.33	2.09	2.10	2.08	2.26
South Island Other Urban	2.78	1.09	2.38	1.95	2.06	2.56
South Island Rural	2.71	2.72	2.37	1.42	1.85	2.52
Total	3.02	3.23	2.40	2.64	2.65	2.79
Number of Women	82,932	2,715	60,837	1,887	2,070	150,444

Source: 1996 Census of Population and Dwellings

3 Among the other factors also affected by education are the age of the mother at first birth and the spacing of her subsequent births (if any), but this information is not available from the data we are using here. The effect of education on fertility appears to be universal, though the effect is not necessarily derived only from the woman's own education. Kravdal (2002) has shown that the effect of educational achievement of others in the same environment also has an impact.

4 The replacement level is set at 2.1 for developed societies as a "simple correction" (van Imhoff, 2001) for mortality of women between puberty and menopause.

5 As noted previously, age standardisation provides a simple method of describing what may be expected if this group of women were to have the same age structure as the total female population. However, for a group with very different age structure from the total population, as we have here, there may be issues related to the underlying assumption that observed fertility would not be affected. These issues are not addressed here in detail but are pointed to as a caution.

The impact of ethnicity is immediately apparent when we observe that, relative to women of only Māori ethnicity, those who also have Pacific ethnicities exhibit fertility closer to the rest of the Pacific population and those with European ethnicities are closer to the European levels.

The interaction between the Māori and Pacific populations is of particular importance in New Zealand, since there is a significant and growing number of people who belong to both groups. While just over 3 percent of Māori women are also of Pacific ethnicities, nearly 10 percent of all Māori children are also of Pacific ethnicities. This is even more pronounced in reverse – over 8 percent of Pacific women, and over 23 percent of all Pacific children, are also of Māori ethnicity. Thus the fertility dynamics of each of these two populations significantly affect the dynamics of the other.

The geographic distributions and age structures of the two populations differ somewhat. This helps explain the apparent patterns in table 16. Since the greater proportion of Pacific women live in main urban areas, this raises the overall Māori fertility rate for these areas relative to the rest of the Māori population. The interplay of the ethnic and geographic environments in which the Māori population finds itself can be clearly seen in their fertility patterns, just as it can on a range of other characteristics.

Underlying the significant differences we observe in populations when we disaggregate them by ethnicity are a number of difficult conceptual issues. This is to be expected since, as noted in an earlier chapter, the defining characteristics of ethnicity are very difficult to isolate and it is likely that very few people have exactly the same set of concepts in mind as they answer the relevant questions. People tend to make a direct conceptual link between ethnicity and ancestry, and for some ethnicities this will represent a much stronger component in their identity than for others. We can see this to a limited extent for people of Māori ethnicity relative to people of Māori ancestry. Information on the ancestral background of other people was not collected.

Table 16

Average Number of Children
For women of Māori and Pacific ethnicities

Area Type and Island	Ethnicity					Total
	Māori Only	Māori and Pacific	Māori and Other, Not Pacific	Not Māori	Ethnicity Not Stated	
Average Number of Children per Woman						
North Island Main Urban	2.33	1.36	1.59	1.76	1.94	1.79
North Island Other Urban	2.63	1.67	2.02	2.28	2.60	2.30
North Island Rural	2.97	2.08	2.15	2.21	2.51	2.30
South Island Main Urban	1.91	1.30	1.38	1.75	1.89	1.74
South Island Other Urban	2.20	1.48	1.82	2.16	2.35	2.15
South Island Rural	2.34	2.03	1.85	2.19	2.33	2.18
Total	2.46	1.45	1.72	1.89	2.09	1.92
Age Adjusted Average Number of Children per Woman						
North Island Main Urban	2.93	2.94	2.31	1.76	1.92	1.84
North Island Other Urban	3.16	3.29	2.68	2.03	2.35	2.18
North Island Rural	3.27	3.10	2.69	2.11	2.43	2.27
South Island Main Urban	2.47	2.61	2.09	1.74	1.80	1.76
South Island Other Urban	2.78	2.16	2.39	1.97	2.10	2.00
South Island Rural	2.71	3.19	2.37	2.08	2.16	2.10
Total	3.02	3.00	2.41	1.83	2.00	1.92

Source: 1996 Census of Population and Dwellings

Table 17

Average Number of Children
For women of Māori ethnicity and/or Māori ancestry by area type

Area Type and Island	Māori Ethnicity and Ancestry					Total
	Both Ethnicity and Ancestry	Ethnicity but Not Ancestry	Ethnicity, but Ancestry Not Stated	Ancestry but Not Ethnicity	Ancestry, but Ethnicity Not Stated	
Average Number of Children per Woman						
North Island Main Urban	1.98	1.84	2.07	1.56	2.17	1.92
North Island Other Urban	2.39	2.13	2.43	2.03	2.78	2.35
North Island Rural	2.66	2.33	2.63	2.05	2.91	2.58
South Island Main Urban	1.57	1.82	1.58	1.55	1.84	1.58
South Island Other Urban	2.00	1.80	1.87	1.78	2.20	1.94
South Island Rural	2.03	2.31	2.09	2.01	2.06	2.03
Total	2.12	1.93	2.17	1.70	2.36	2.06
Age Adjusted Average Number of Children per Woman						
North Island Main Urban	2.71	2.13	2.86	1.94	2.61	2.55
North Island Other Urban	3.01	2.31	3.11	2.26	3.10	2.89
North Island Rural	3.11	2.46	3.05	2.26	3.18	2.99
South Island Main Urban	2.29	1.95	2.22	2.02	2.29	2.20
South Island Other Urban	2.60	1.98	2.49	2.12	2.41	2.45
South Island Rural	2.53	2.29	2.84	2.32	2.43	2.47
Total	2.81	2.15	2.89	2.06	2.77	2.65

Source: 1996 Census of Population and Dwellings

Generally, as table 17 illustrates, women of both Māori ancestry and Māori ethnicity (or who stated they had either characteristic but failed to respond to the other question) tended to have more children on average than women who specifically stated that they belonged to one group but not to the other. We can assume that having Māori ancestry but not ethnicity, or Māori ethnicity but not ancestry, implies that the strength of the cultural ties (one might say 'Māoriness') may differ from people having both. It follows from this that there is probably a gradation in the degree of 'belonging' which materially affects the characteristics of all ethnic groups which is invisible in the data but which may have very wide significance for all people. Similarly, changes in characteristics such as educational achievement may be expected to modify affiliation with an ethnicity, especially in cases where a group is perceived by the population at large as being associated with particular characteristics or abilities. Changes in data over time imply that people of Māori ethnicity whose socio-economic status increases may not choose to continue identifying as Māori (Kukutai, 2003).

Women in the North Island with Māori ancestry but not Māori ethnicity tend to have very slightly age-adjusted lower fertility than women with Māori ethnicity but not ancestry. The opposite is true in the South Island. However, both groups have lower fertility than women in the other three groups in table 17. Moreover the difference is generally greater for rural than for urban women, and this implies that factors such as access to education and health services may play a significant part in fertility outcomes. There are many reasons why we cannot state this with certainty, for example births to rural women may be the result of urban events, and vice versa, and the spatial differentials within areas is sometimes greater than the differences between areas.

Table 18

Number of Specified Ethnicities for People of Māori Ethnicity
By area type, sex and person type

Sex and Number of Ethnicities Specified	North Island				South Island			
	Urban		Rural		Urban		Rural	
	Adult	Child	Adult	Child	Adult	Child	Adult	Child
Number of People								
Male								
One	65,682	33,435	15,489	7,653	7,971	3,399	1,536	639
Two	34,977	28,794	6,612	5,592	7,566	5,094	1,722	1,344
Three	11,418	11,157	1,863	1,728	1,971	1,416	408	294
Female								
One	72,189	31,587	14,943	6,858	6,825	3,129	1,323	612
Two	39,912	27,855	6,531	5,319	7,845	4,779	1,632	1,254
Three	13,707	10,974	2,097	1,656	2,052	1,410	402	300
Percent Distribution								
Male								
One	58.6	45.6	64.6	51.1	45.5	34.3	41.9	28.1
Two	31.2	39.2	27.6	37.3	43.2	51.4	47.0	59.0
Three	10.2	15.2	7.8	11.5	11.3	14.3	11.1	12.9
Female								
One	57.4	44.9	63.4	49.6	40.8	33.6	39.4	28.3
Two	31.7	39.6	27.7	38.5	46.9	51.3	48.6	57.9
Three	10.9	15.6	8.9	12.0	12.3	15.1	12.0	13.9

Source: 1996 Census of Population and Dwellings

Geographic location and associated factors such as internal migration and peri-urban effects play a part. People of Māori ethnicity living in the South Island are much more ethnically diverse than in the North Island (table 18), and those living in rural areas in the South Island more diverse than their South Island urban counterparts. This contrasts with the North Island where those in urban areas are significantly more diverse than those in rural areas. Undoubtedly, this variation in ethnic diversity contributes to differences between urban and rural fertility, but equally plausibly fertility and rurality contribute to the ethnic diversity. This pattern of diversity has important geographic consequences.

Another factor affecting ethnicity with respect to fertility is the effect of paternity, especially for groups between which there is a significant level of social interaction. While most of the discussion centres on the relationship between the ethnicity of the child relative to the mother, an equally interesting aspect is the relationship between the ethnicity and ancestry of the respective parents. An analysis of couples in parental roles in families shows a strong relationship between the characteristics of the respective partners. We encounter a complicating factor when we want to consider this relationship with respect to the children in the family. We do not know from the data whether or not either partner is the biological parent of any or all of the children.

Table 19

Average Number of Children per Woman
By Māori ethnicity and ancestry of partners in opposite-sex two-parent families

Māori Ethnicity and/or Ancestry of Male Partner	Māori Ethnicity and/or Ancestry of Female Partner							
	Both	Ethnicity, Not Ancestry	Ancestry, Not Ethnicity	Ethnicity (Ancestry Not Stated)	Ancestry (Ethnicity Not Stated)	Total Māori	Non-Māori	Total
Age Adjusted Average Number of Children								
Both	3.22	2.78	2.68	3.32	3.14	3.20	2.27	2.77
Ethnicity, Not Ancestry	3.04	2.57	2.49	2.48	1.23	2.84	2.10	2.28
Ancestry, Not Ethnicity	2.70	2.54	2.19	3.48	2.92	2.50	2.02	2.09
Ethnicity (Ancestry Not Stated)	3.31	1.65	1.93	3.02	2.48	3.25	2.10	2.66
Ancestry (Ethnicity Not Stated)	3.05	0.77	2.59	3.24	1.14	3.00	1.94	2.44
Total Māori	3.20	2.73	2.42	3.29	3.10	3.15	2.18	2.61
Non-Māori	2.40	2.17	2.06	2.52	2.54	2.29	1.92	1.95
Total	2.79	2.32	2.11	2.89	2.82	2.64	1.94	2.00

Source: 1996 Census of Population and Dwellings

Couple formation is a complex process and ethnicity is undoubtedly one element in partner preference, but perhaps more importantly ethnicity plays a role in determining the social circle from which a partner is likely to be chosen. Ethnicity could perhaps be likened to religion in this respect – it is similarly unclear whether a person consciously chooses a partner of the same religion or whether it is simply a consequence of a high level of social interaction, and a partner may or may not subsequently change their religion to that of the other partner. Current marital status, however, does not reveal the ethnic dynamics involved, merely what the current situation is reported to be. Since we are using point data, we cannot tell whether the ethnicities have converged, diverged or been unaffected as a result of couple formation. For this information, we would need longitudinal data. Preliminary research carried out by the author does suggest that ethnic mobility is relatively high during or following changes in living arrangements.

Table 20

Average Number of Children for Māori Women
By ethnicity, marital status and area type

Area Type and Marital Status	Ethnicity					Total Māori	Population
	Māori Only	Māori and Pacific Only	Māori and European Only	Māori, European and Pacific	Māori and Other Combinations		
	Age Adjusted Average Number of Children						Number
North Island Main Urban							
Legally Married	3.16	3.41	2.51	2.81	2.71	2.87	24,015
Partnered - Other	2.72	1.40	2.45	2.16	1.03	2.59	12,621
Not Partnered	2.84	2.85	2.16	2.58	2.44	2.59	43,521
Total (incl Not Specified)	2.93	3.14	2.30	2.68	2.47	2.69	84,876
North Island Other Urban							
Legally Married	3.36	2.92	2.89	2.64	3.17	3.16	8,601
Partnered - Other	3.17	1.33	2.53	1.09	1.97	2.97	4,020
Not Partnered	3.04	3.59	2.51	2.63	2.47	2.89	12,957
Total (incl Not Specified)	3.16	3.69	2.68	2.75	2.95	3.00	27,072
North Island Rural							
Legally Married	3.53	3.02	2.80	2.62	4.05	3.27	8,070
Partnered - Other	3.15	2.65	3.44	0.94	1.35	3.12	3,228
Not Partnered	2.99	3.21	2.52	1.46	1.65	2.86	8,202
Total (incl Not Specified)	3.27	3.33	2.68	2.55	3.09	3.10	20,529
Total New Zealand (incl South Island)							
Legally Married	3.25	3.32	2.60	2.75	3.04	2.96	46,764
Partnered - Other	2.88	1.96	2.52	2.13	1.78	2.73	22,482
Not Partnered	2.90	3.12	2.23	2.53	2.43	2.66	73,149
Total (incl Not Specified)	3.02	3.23	2.40	2.64	2.65	2.79	150,444

Source: 1996 Census of Population and Dwellings

There is also a high degree of coincidence between the ethnicities of respective partners. The consequences of ethnic interaction between partners can be seen in fertility outcomes. Table 19, moreover, indicates that there is a stronger link between fertility and ethnicity than there is between fertility and ancestry, lending support to the assumption in this report that fertility is a rather more strongly culturally conditioned process than it is genetically determined in a society with exogamous norms.

From table 20, we can see that increasing rurality tends to be associated with higher fertility for women of only Māori ethnicity as well as those of both Māori and European ethnicities. However, women of both Māori and Pacific ethnicities have a slightly different pattern – those in secondary and minor urban areas have generally higher fertility than their counterparts in main urban and rural areas.

This geographic pattern is largely driven by two opposing factors – Pacific women have higher fertility than Māori women and fertility increases with rurality. As a consequence, women with both ethnicities living in the smaller urban areas seem to be picking up both the higher fertility of Pacific women and the higher fertility of smaller urban areas (relative to main urban areas). Legally married women in this group, though, have significantly higher fertility in the main urban areas than elsewhere, again reinforcing the view that in this case the Pacific norm may be dominating the Māori norm.⁶ In other areas, the reverse appears to apply. The only women of both Māori and Pacific ethnicities who have higher age-adjusted fertility than the legally married in main urban areas are those who are unpartnered women living in smaller urban areas. One of the factors in operation here may be the interaction between ethnicity and community.

⁶ Pacific women are more likely to live in main urban areas and have higher fertility than non-Pacific women in these areas.

The effect of Pacific ethnicities on the Māori population is further suggested in a comparison of people who had stated an affiliation with a religion with those who stated that they had no religion (table 21). While this table suggests that there is a correlation between educational level and marital status on one hand, and between marital status and religious affiliation on the other, there is relatively little difference between women of equivalent educational levels except when they also have a Pacific ethnicity. In the latter case the women tend to have much lower age-adjusted fertility. Two factors explain this lower fertility – people of Pacific ethnicities who state they have no religion tend to be much younger than those who do affiliate with a religion, and women who have both Māori and Pacific ethnicities tend to be a younger subset of both groups. Many of these women may have not completed, or started, childbearing, which has an effect on the age-adjusted rates, but indications are that the fertility of this component of the Māori population will remain slightly higher than the group as a whole at least in the short-term future.

The effect of the presence of Pacific ethnicities on Māori fertility as a whole has also been noted for European women who are also of one or more Pacific ethnicities. Considering this effect alongside the observation that the incidence of multiple ethnicity is increasing, and the converse effect of European ethnicities on Māori fertility as a whole, reveals an important process underway in the New Zealand population. One might group Māori and Pacific women together and European and Asian women together purely on the basis of different fertility trends. However, while it is true that the fertility of Māori women is tending to diverge towards that of their Pacific or their European peers, depending on their ethnic space, it is also true that both trends are simultaneously tending towards lower fertility and converging on a national norm. It is still unclear whether or not the relative rate of the two declines differs, which makes it difficult to project when these are likely to meet. Another issue relates to findings among Mexican migrant women suggesting that this bimodal assimilationist model may be overly simplistic (Lindstrom and Saucedo, 2002). The two key factors in the rate of change are changing Pacific cultural and social expectations and the rapidly changing socio-economic characteristics of both Māori and Pacific women.

Fertility of New Zealand Women by Ethnicity

Table 21

Average Number of Children for Māori Women
By ethnicity, marital status, religious status and highest qualification

Marital Status, Religious Status and Highest Qualification	Ethnicity					Total Māori	Population
	Māori Only	Māori and Pacific Only	Māori and European Only	Māori, European and Pacific	Māori and Other Combinations		
	Age Adjusted Average Number of Children						Number
Legally Married							
Religion Specified							
Tertiary Qualification	2.93	3.57	2.42	2.31	2.54	2.66	8,877
Secondary Qualification	3.07	3.27	2.48	2.63	2.68	2.78	10,569
No Qualification	3.48	3.41	2.96	2.97	2.91	3.29	17,229
Total (incl Not Specified)	3.27	3.41	2.64	2.75	2.74	3.00	37,086
No Religion							
Tertiary Qualification	2.10	0.70	2.09	0.47	1.46	2.11	1,449
Secondary Qualification	2.76	0.68	2.52	1.67	1.18	2.58	1,971
No Qualification	3.39	1.38	2.53	1.23	1.87	2.90	2,217
Total (incl Not Specified)	3.10	1.39	2.35	1.68	1.94	2.59	5,655
Partnered - Other							
Religion Specified							
Tertiary Qualification	2.97	1.55	2.22	0.82	0.99	2.60	3,237
Secondary Qualification	2.42	1.17	2.48	1.08	1.23	2.40	4,680
No Qualification	3.19	1.92	2.99	1.84	2.05	3.13	5,985
Total (incl Not Specified)	2.96	1.89	2.63	1.86	1.78	2.84	13,986
No Religion							
Tertiary Qualification	1.43	0.32	1.14	0.37	0.66	1.26	1,503
Secondary Qualification	1.36	0.33	1.15	0.64	0.73	1.23	2,292
No Qualification	2.33	1.23	2.00	1.47	1.77	2.26	2,265
Total (incl Not Specified)	2.01	0.79	1.60	1.15	1.37	1.78	6,084
Not Partnered							
Religion Specified							
Tertiary Qualification	2.52	3.16	1.83	2.33	2.90	2.24	9,522
Secondary Qualification	2.72	3.05	2.18	2.45	2.24	2.49	15,639
No Qualification	3.10	3.02	2.62	2.73	2.41	2.96	22,989
Total (incl Not Specified)	2.91	3.04	2.27	2.51	2.34	2.70	48,561
No Religion							
Tertiary Qualification	2.38	0.62	1.68	1.11	0.63	1.87	3,189
Secondary Qualification	2.39	0.57	1.73	0.34	1.10	1.98	6,231
No Qualification	2.86	2.62	2.41	1.13	2.31	2.69	7,140
Total (incl Not Specified)	2.71	2.67	1.98	1.23	2.27	2.34	16,623
Total							
Religion Specified							
Tertiary Qualification	2.71	3.39	2.13	2.46	2.78	2.46	22,785
Secondary Qualification	2.83	3.19	2.32	2.58	2.46	2.60	32,376
No Qualification	3.24	3.25	2.76	2.86	2.66	3.09	49,065
Total (incl Not Specified)	3.05	3.24	2.44	2.65	2.54	2.83	105,300
No Religion							
Tertiary Qualification	2.14	1.03	1.87	1.28	1.18	1.98	6,387
Secondary Qualification	2.36	0.58	2.06	1.46	1.06	2.15	10,890
No Qualification	2.98	3.23	2.45	1.67	2.60	2.74	12,216
Total (incl Not Specified)	2.80	2.33	2.13	1.66	2.56	2.42	29,622

Source: 1996 Census of Population and Dwellings

6.3 Fertility of women of Pacific ethnicities

In 1996, there were 63,930 women of Pacific ethnicities aged 15 years and over who lived in New Zealand, a significant proportion of whom were born in this country (table 22). With the exception of women of Fijian ethnicity, among the larger ethnic groups, the fertility of the locally-born women is lower than that of the women born overseas.

Table 22

Ethnicity	New Zealand-born			Overseas-born			Total		
	Number of Women	Average Number of Children		Number of Women	Average Number of Children		Number of Women	Average Number of Children	
		Unadjusted	Age Adjusted		Unadjusted	Age Adjusted		Unadjusted	Age Adjusted
Samoan	10,290	0.81	2.19	17,958	2.63	2.88	28,575	1.97	2.80
Cook Island Maori	6,414	1.39	2.75	5,772	3.09	3.14	12,321	2.20	3.03
Tongan	1,983	0.82	2.30	5,886	2.62	2.91	7,977	2.17	2.85
Niuean	2,256	1.11	2.28	2,568	3.06	3.06	4,938	2.17	2.93
Fijian	768	1.03	2.50	1,656	2.06	2.26	2,445	1.74	2.28
Tokelauan	537	0.52	0.65	783	3.37	3.39	1,344	2.20	3.28
Solomon Islander	21	0.62	1.05	81	1.40	1.83	102	1.24	2.21
Other Pacific	501	1.26	1.99	951	2.04	2.55	1,470	1.77	2.48

Source: 1996 Census of Population and Dwellings

Pacific women are also likely to have had more children if they live in the North Island than if they live in the South Island, and women in the main urban areas are likely to have had more children than other women. Interestingly, women of both Pacific and Māori ethnicities living in the North Island tend to have more children than women of only Pacific ethnicities, and there is an underlying tendency for this group of women to have more children if they live outside the main urban areas. This appears to result from a combination of higher Pacific fertility generally and higher rural Māori fertility.

Generally, Pacific women who have stated that they have a religious affiliation (table 24) have higher fertility than those who do not. This is as may be expected, since religion is an important component for many of the Pacific ethnicities (though not necessarily for all other ethnicities), both in social terms and for economic processes such as the operation of internally operating financial support systems and international assistance.⁷ The underlying religious fabric of Pacific cultures has been modified and overlaid with exogenous Christian elements and these elements have to a greater or lesser extent become an integral component of Pacific identity. Religious affiliation and participation is intrinsic to social interaction within and between Pacific communities in New Zealand and overseas (Bedford and Didham, 2001).

Among adults, non-Pacific people are more than three times as likely to state that they have no religion than are Pacific adults. Thus religious adherence is an important component of what defines 'Pacificness'. Women of Pacific ethnicities are much more likely to have stated that they affiliate with one of the Christian religions than any other group in the population, at around 91 percent compared with around 75 percent for all New Zealand women. Similarly, Pacific women are much less likely to object to answering, to have no religion or to not specify a religion. However, this may change as educational achievement changes, although the relationship between educational level and religious affiliation is complex.

There is a link between religious affiliation and marital status for women in general, but this varies with ethnicity. For example, 3 in 4 married European women reported that they affiliated with a religion; more than 1 in 2 of those who were partnered but never married reported that they had no religion. This contrasts with Pacific women, among whom nearly 97 percent of married women and over 80 percent of those who were partnered but never married (over 86 percent for mothers in this category) reported that they do have a religion.

7 While much research was done in the 1980s on the MIRAB model (Bertram and Watters, 1985), less has been written on the subject in recent years. However, many island nations, such as Tonga, still depend heavily on remittances from their diasporas (Poirine, 1998). Spoonley (2002) has proposed DIRAP (diaspora, remittances and political systems) as a modification of this model. This applies to many Asian groups as well, especially for Southeast Asian groups, with cultural attitudes to family and community historically common in origin to those now found in the Pacific.

Table 23

Average Number of Children for Pacific Women
By ethnicity and area type

Area Type and Island	Ethnicity					Total Pacific
	Pacific Only	Pacific and Māori Only	Pacific and European Only	European, Māori and Pacific	Pacific and Other Combinations	
Average Number of Children per Woman						
North Island Main Urban	2.30	1.41	1.50	1.31	1.52	2.09
North Island Other Urban	2.60	1.72	1.82	1.63	1.79	2.21
North Island Rural	2.55	2.48	1.83	1.55	1.66	2.12
South Island Main Urban	2.06	1.26	1.17	1.31	1.30	1.74
South Island Other Urban	2.07	1.34	1.62	1.72	2.00	1.79
South Island Rural	1.98	2.35	1.77	2.00	1.57	1.89
Total	2.30	1.52	1.51	1.37	1.52	2.08
Age Adjusted Average Number of Children per Woman						
North Island Main Urban	2.93	3.14	2.41	2.68	2.75	2.86
North Island Other Urban	2.88	3.69	2.55	2.75	2.13	2.86
North Island Rural	2.75	3.33	2.15	2.55	2.21	2.67
South Island Main Urban	2.76	2.33	2.24	2.10	3.36	2.65
South Island Other Urban	2.17	1.09	2.29	1.95	1.54	2.25
South Island Rural	1.68	2.72	2.21	1.42	1.02	2.37
Total	2.92	3.23	2.40	2.64	2.74	2.84
Number of Women	40,383	2,715	9,144	1,887	2,022	56,151

Source: 1996 Census of Population and Dwellings

Table 24

Average Number of Children for Pacific Women
By ethnicity, religious status and area type

Area Type and Religious Status	Ethnicity					Total Pacific	Population
	Pacific Only	Pacific and Māori Only	Pacific and European Only	Pacific, Māori and European	Pacific and Other Combinations		
Age Adjusted Average Number of Children							Number
North Island Main Urban							
Religion Specified	2.94	3.23	2.46	2.66	2.78	2.88	43,188
No Religion	2.57	1.47	2.20	1.74	2.36	2.41	3,207
Object to Stating	2.54	2.10	2.14	2.55	2.42	2.47	1,680
Total	2.93	3.14	2.41	2.68	2.75	2.86	49,095
North Island Other Urban							
Religion Specified	2.91	3.62	2.64	2.87	2.16	2.91	2,097
No Religion	1.73	1.04	1.92	1.01	0.68	2.09	321
Object to Stating	2.15	3.24	1.80	1.27	0.73	2.48	147
Total	2.88	3.69	2.55	2.75	2.13	2.86	2,628
North Island Rural							
Religion Specified	2.77	3.15	2.18	2.35	2.51	2.67	771
No Religion	1.32	2.24	1.36	1.17	0.89	3.25	219
Object to Stating	1.31	3.54	1.81	0.23	0.00	3.49	72
Total	2.75	3.33	2.15	2.55	2.21	2.67	1,089
Total New Zealand (incl South Island)							
Religion Specified	2.93	3.24	2.45	2.65	2.78	2.87	48,747
No Religion	2.56	2.33	2.21	1.66	2.33	2.40	4,146
Object to Stating	2.47	3.46	2.14	2.63	2.40	2.47	2,052
Total	2.92	3.23	2.40	2.64	2.74	2.84	56,151

Source: 1996 Census of Population and Dwellings

In the case of Pacific women, approximately half of those mothers who were not partnered at the time of the 1996 Census stated that they had been previously married. This contrasts with European (15 percent) and Asian (16 percent) women, though it is similar to Māori women at 54 percent. This largely reflects the different age structure and migration histories – among non-partnered women, 48 percent of European and 45 percent of Asian women were widowed, compared with 20 percent for Pacific women. However, the striking contrast is that almost 90 percent of non-partnered Pacific never-married women and more than 90 percent of non-partnered separated Pacific women stated that they had a

religion, substantially higher than women of other ethnicities. This contrast is not found among non-partnered widows, with more than 90 percent of European and Māori widows stating a religious affiliation, whether mothers or not. Asian women were an exception in this case, at less than 80 percent.

The relationship between religion and marital status for Pacific women is interesting because the propensity to have both had children and be (or have been) married can be related to the number of children and this can then be compared with other groups. We find, for example, that, adjusted for age, legally married Pacific women have had on average 3.2 children compared with 2.3 for those in other partnerships and 2.8 for non-partnered women (table 25), although this varies with area of residence. If we compare this with the data for Māori women (table 20), we find that legally married women had on average 3.0 children, while those in other partnerships had 2.7 children and those who were not partnered also had 2.7 children. Similarly, for European women (1.9, 1.7 and 1.8 children on average, respectively: table 11) and Asian women (2.0, 1.7 and 1.5 children on average, respectively: table 30). Women who have had larger families are more likely to have been legally married at the time of the census.

Table 25

Average Number of Children for Pacific Women
By ethnicity, marital status and area type

Area Type and Marital Status	Ethnicity						Population
	Pacific Only	Pacific and Māori Only	Pacific and European Only	Pacific, Māori and European	Pacific and Other Combinations	Total Pacific	
	Age Adjusted Average Number of Children						Number
North Island Main Urban							
Legally Married	3.32	3.41	2.67	2.81	3.23	3.22	19,329
Partnered - other	2.21	1.40	2.20	2.16	2.50	2.27	3,969
Not Partnered	2.50	2.85	2.16	2.58	2.17	2.46	22,524
Total (incl not specified)	2.93	3.14	2.41	2.68	2.75	2.86	49,095
North Island Other Urban							
Legally Married	2.98	2.92	2.88	2.64	1.77	2.91	1,005
Partnered - other	3.22	1.33	0.78	1.09	0.49	3.01	294
Not Partnered	2.87	3.59	2.48	2.63	2.12	2.87	1,194
Total (incl not specified)	2.88	3.69	2.55	2.75	2.13	2.86	2,628
North Island Rural							
Legally Married	3.06	3.02	2.22	2.62	2.59	2.71	492
Partnered - other	1.47	2.65	1.15	0.94	0.31	1.86	183
Not Partnered	2.10	3.21	2.31	1.46	0.00	2.53	372
Total (incl not specified)	2.75	3.33	2.15	2.55	2.21	2.67	1,089
Total New Zealand (incl South Island)							
Legally Married	3.29	3.32	2.66	2.75	3.13	3.18	22,053
Partnered - other	2.36	1.96	2.10	2.13	2.52	2.29	4,734
Not Partnered	2.51	3.12	2.16	2.53	2.23	2.47	25,710
Total (incl not specified)	2.92	3.23	2.40	2.64	2.74	2.84	56,151

Source: 1996 Census of Population and Dwellings

Those in other partnerships tended to have given birth to fewer children. This pattern is consistent despite quite different patterns in religious affiliation, suggesting that religious affiliation, although a very important element of Pacific identity, is not the primary factor in fertility trends. Nevertheless, Pacific women tend to be married. In 1996, the percentage of Pacific women in consensual unions is small (less than 9 percent).

Table 26 suggests the importance religion holds for Pacific identity. Overall, women with a religion have more children than those without, although those with tertiary qualifications tend to have slightly fewer children. There is a distinct contrast for Pacific women between those with no religion and those with religion, but this distinction further reinforces the view that religious affiliation is an intrinsic and major part of Pacific culture. Significantly, over 78 percent of the Pacific women who stated they had no religion were born in New Zealand and younger, while more than 67 percent of those with a religion were born overseas and older. More than half of Pacific women under 25 were born in New Zealand, more than half of those over 25 years were born overseas.

Fertility of New Zealand Women by Ethnicity

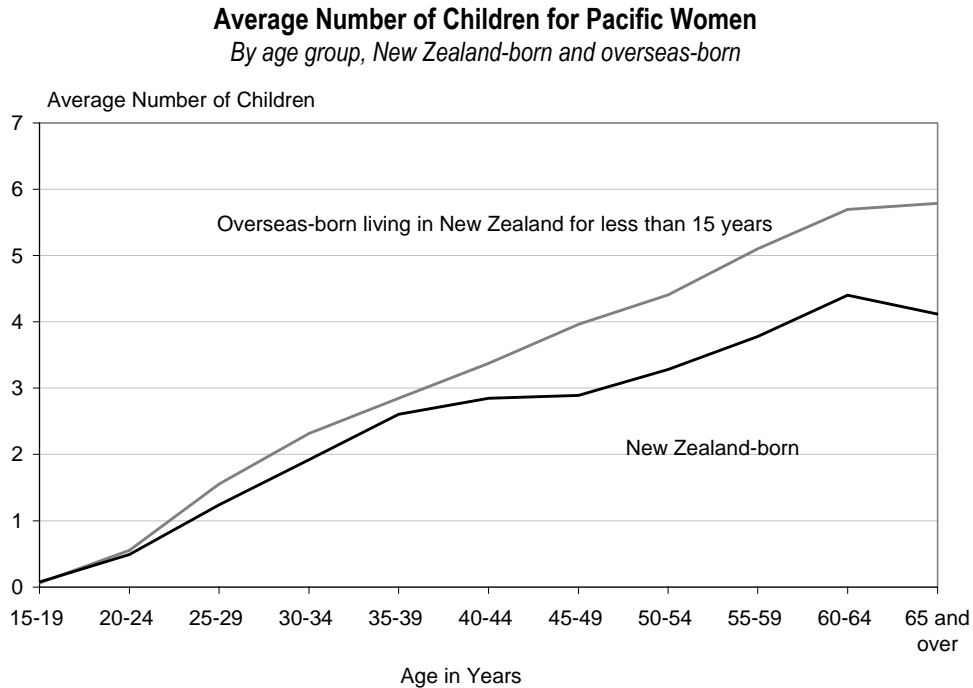
Table 26

Average Number of Children for Pacific Women
By ethnicity, marital status, religious status and highest qualification

Marital Status, Religious Status and Highest Qualification	Ethnicity						Population
	Pacific Only	Pacific and Māori Only	Pacific and European Only	Pacific, Māori and European	Pacific and Other Combinations	Total Pacific	
	Age Adjusted Average Number of Children						Number
Legally Married							
Religion Specified							
Tertiary Qualification	3.06	3.57	2.48	2.31	2.95	2.93	3,900
Secondary Qualification	3.22	3.27	2.63	2.63	3.68	3.08	6,177
No Qualification	3.42	3.41	2.98	2.97	3.28	3.37	9,897
Total (incl Not Specified)	3.29	3.41	2.70	2.75	3.11	3.20	20,355
No Religion							
Tertiary Qualification	1.42	0.70	1.56	0.47	0.77	1.56	189
Secondary Qualification	2.27	0.68	1.46	1.67	0.66	2.54	300
No Qualification	2.97	1.38	2.25	1.23	1.85	2.91	276
Total (incl Not Specified)	2.82	1.39	2.31	1.68	1.25	2.62	771
Partnered - Other							
Religion Specified							
Tertiary Qualification	1.95	1.55	1.32	0.82	0.50	1.86	777
Secondary Qualification	1.86	1.17	1.26	1.08	1.07	1.74	1,332
No Qualification	2.48	1.92	2.42	1.84	2.71	2.53	1,407
Total (incl Not Specified)	2.39	1.89	2.28	1.86	2.29	2.37	3,555
No Religion							
Tertiary Qualification	0.65	0.32	0.95	0.37	0.30	1.01	201
Secondary Qualification	0.92	0.33	0.56	0.64	0.41	0.90	342
No Qualification	1.69	1.23	1.23	1.47	0.51	1.91	240
Total (incl Not Specified)	1.45	0.79	0.99	1.15	0.48	1.56	783
Not Partnered							
Religion Specified							
Tertiary Qualification	2.20	3.16	1.66	2.33	2.49	2.15	3,993
Secondary Qualification	2.22	3.05	2.17	2.45	1.94	2.23	8,502
No Qualification	2.71	3.02	2.55	2.73	2.25	2.70	8,931
Total (incl Not Specified)	2.50	3.04	2.18	2.51	2.24	2.47	21,663
No Religion							
Tertiary Qualification	1.32	0.62	2.01	1.11	0.67	1.68	480
Secondary Qualification	1.82	0.57	1.36	0.34	0.25	1.56	990
No Qualification	2.81	2.62	2.60	1.13	2.39	2.89	921
Total (incl Not Specified)	2.43	2.67	2.25	1.23	2.24	2.38	2,400
Total							
Religion Specified							
Tertiary Qualification	2.67	3.39	2.12	2.46	2.75	2.59	9,258
Secondary Qualification	2.78	3.19	2.36	2.58	2.63	2.70	17,013
No Qualification	3.09	3.25	2.77	2.86	2.96	3.06	21,666
Total (incl Not Specified)	2.93	3.24	2.45	2.65	2.78	2.87	48,747
No Religion							
Tertiary Qualification	1.53	1.03	2.13	1.28	0.75	1.84	906
Secondary Qualification	2.09	0.58	1.51	1.46	0.77	1.94	1,701
No Qualification	2.86	3.23	2.63	1.67	2.54	2.84	1,521
Total (incl Not Specified)	2.56	2.33	2.21	1.66	2.33	2.40	4,146

Source: 1996 Census of Population and Dwellings

Figure 3



This is another example of how the Pacific people in New Zealand fall into two approximately equally sized groups with quite different characteristics – the slightly larger population of those born in New Zealand and the slightly smaller population of those born overseas. Because people of Pacific ethnicities make up a relatively recent significant component of the population of New Zealand but are now well established, this group illustrates the dynamics of the transition from arrival to establishment. Figure 3 shows that Pacific women born overseas who are relatively recent arrivals have at all ages a higher fertility than women born in New Zealand. Moreover, those who have been in New Zealand for the majority of their later childhood and adult years tend to have had fewer children than those who did not arrive in this country until they had reached adulthood. The more established group has an almost identical pattern to the locally-born, both in the number and the timing of births, as well as in a number of socio-economic and geographic characteristics.

6.4 Fertility of women of Asian ethnicities

In 1996, there were 67,875 women of Asian ethnicities aged 15 years and over, the vast majority of whom were born overseas (table 27). The women born overseas have been in New Zealand for widely varying lengths of time, so that for some women fertility depends on that of the source country almost entirely, while for others fertility will reflect their new environment.

For some of the larger categories such as 'Indian', which comprise a wide range of ethnicities, the diversity within the group is quite large. While women who gave an Indian ethnicity as one of their ethnicities had on average given birth to 2.15 children (age adjusted), this varied with birthplace to a marked degree. For women who stated their ethnicity as Fijian Indian the figure was 2.49 children per woman, compared with a figure of 2.43 for all women of Indian ethnicities born in Fiji. This contrasts with 1.89 children per woman for those born in New Zealand and 2.07 for those born elsewhere (predominantly born in India).

Table 27

Average Number of Children
For women of selected Asian ethnicities (total responses) by birthplace

Ethnicity	New Zealand-born			Overseas-born			Total		
	Number of Women	Average Number of Children		Number of Women	Average Number of Children		Number of Women	Average Number of Children	
		Unadjusted	Age Adjusted		Unadjusted	Age Adjusted		Unadjusted	Age Adjusted
Filipino	54	0.45	0.84	3,744	1.31	1.69	3,819	1.29	1.70
Khmer	15	1.21	1.18	1,311	2.11	2.62	1,335	2.10	2.63
Vietnamese	24	0.13	0.21	864	1.80	2.48	894	1.75	2.47
Burmese	36	1.09	0.81	132	1.75	1.67	168	1.61	1.68
Indonesian	45	0.74	0.71	552	1.08	1.56	600	1.04	1.53
Lao	...	...	...	351	1.93	2.79	360	1.89	2.79
Malay	69	0.76	1.42	1,089	1.02	1.58	1,161	1.00	1.62
Thai	27	0.61	0.66	1,110	0.90	1.27	1,143	0.89	1.27
Chinese	5,184	1.13	1.82	23,919	1.41	1.83	29,322	1.36	1.83
Indian	2,871	1.09	1.89	10,380	1.72	2.18	13,431	1.58	2.15
Sri Lankan	60	0.23	0.55	1,542	1.49	1.63	1,608	1.43	1.63
Japanese	144	0.79	1.60	2,934	0.54	0.99	3,084	0.55	1.01
Korean	12	1.08	0.57	3,924	1.21	1.54	3,951	1.21	1.54
Bangladeshi	...	...	...	291	1.24	1.26	291	1.24	1.26
Pakistani	...	...	...	126	1.98	2.29	138	1.87	2.24
Other Asian	108	0.52	1.17	681	1.63	1.96	801	1.48	1.93

Source: 1996 Census of Population and Dwellings

The scope of Asian ethnicities used here is that used in the standard classification of ethnicity, which is based largely on geographic and economic boundaries. This includes Afghanistan but not Iran. Nor does it include any Central Asian Turkic ethnicities, which have been coded to general Middle Eastern categories. This has an effect on how far we can interpret the data on people with ethnicities associated with Central Asia, although the Central Asian population in New Zealand is still fairly small.

This boundary choice, from an ethnographic viewpoint, tends to affect the apparent patterns if we treat Asia as a unit under this definition. There is a marked relationship between the number of children a woman may have and the geographic region associated with her ethnicity. Grouping ethnicities into logical geocultural units⁸ reveals that the age adjusted average number of children born per woman is highest for women of Central Asian ethnicities at 2.30, followed by South Asian at 2.14. Women of Southeast Asian ethnicities have a generally lower fertility at 1.89 children but not as low as women of East Asian ethnicities who have, on average, 1.78 children per woman. One of the factors currently producing a higher value for women from Southeast Asia than those from East Asia is the relatively high fertility of women from Cambodia, Viet Nam and Laos, countries which have recently suffered devastating population losses and extreme social dislocation. These circumstances generally invoke a fairly short period of high fertility (Desbarats, 1998; Heuveline, 1999) which also extends into the diasporas by continuing association with the source area and further immigration of young adult populations. An interesting aspect of this data is that it accords closely with the differences in female education and the relative degree to which a society is patriarchal or matriarchal, with the highest rates being found among groups with stronger patriarchal traditions.

Asian women in New Zealand have a strong correlation between number of children and marital status. At least in part this is related to the proportion of these women who are still studying, with those who are not legally married having significantly fewer children than is the norm for the New Zealand population as a whole. However, this also reflects immigration practices, since a number of Asian women have moved to New Zealand with their husbands as part of a migrating family and others have been able to settle in this country by marrying a New Zealand citizen. It is less common for single women with children to have settled in New Zealand unless they were sponsored by other family members.

⁸ In this paragraph, the groupings are made on the basis of socio-cultural and historical typology. Central Asian comprises people of Iranian, Afghani, Mongolian and Tibetan ethnicities. Southeast Asian includes Mainland Southeast Asian, Archipelago Southeast Asian and Sri Lankan ethnicities apart from Sri Lankan Tamil (included in South Asian). South Asian consists of Indian, Nepali, Pakistani and Bengali ethnicities. East Asian is made up of Chinese, Korean and Japanese ethnicities. The 474 women of Iranian ethnicities are not included elsewhere under Asia in this chapter as they are generally classified as Middle Eastern, although they generally do not consider themselves as such.

One of the striking features we see among Asian women (table 28) is the relationship between fertility outcomes and multiple ethnicity. Women of only Asian ethnicities generally have a lower average number of children than their peers of both Asian and European ethnicities. The latter group has on average one child more. This is a larger, though similar, effect than that seen in the pattern for Pacific women who also have Māori ethnicity (table 23). The underlying causes may relate to the sociology of intermarriage, though part of the reason probably lies in the youthful age structure of the Asian population.

Table 28

Average Number of Children for Asian Women
By ethnicity and area type

Area Type and Island	Ethnicity					Total Asian
	Asian Only	Asian and Māori Only	Asian and European Only	European, Māori and Asian	Asian and Other Combinations	
Average Number of Children per Woman						
North Island Main Urban	1.40	0.97	1.59	1.36	1.53	1.39
North Island Other Urban	1.76	1.41	2.14	1.90	1.86	1.76
North Island Rural	1.71	1.79	2.52	2.24	1.84	1.80
South Island Main Urban	1.08	0.87	0.86	1.15	1.32	1.07
South Island Other Urban	1.06	1.44	2.77	2.86	1.89	1.16
South Island Rural	1.25	1.79	2.67	1.75	1.53	1.39
Total	1.37	1.06	1.76	1.52	1.53	1.37
Age Adjusted Average Number of Children per Woman						
North Island Main Urban	1.86	1.58	2.56	2.37	2.75	1.88
North Island Other Urban	1.96	1.76	2.96	3.08	2.46	2.04
North Island Rural	1.97	2.34	3.17	2.63	2.36	2.14
South Island Main Urban	1.84	1.46	1.33	1.53	3.32	1.84
South Island Other Urban	1.51	1.75	1.72	1.81	1.53	1.65
South Island Rural	1.66	1.84	0.95	1.53	1.09	1.78
Total	1.86	1.64	2.66	2.59	2.74	1.88
Number of Women	54,051	669	2,994	879	2,052	60,645

Source: 1996 Census of Population and Dwellings

Marital status is a strong factor among Asian women with respect to their fertility, as table 29 indicates. Asian mothers were more likely than other mothers to report that they were legally married – though it is not possible to tell from the data how many of these mothers interpreted this question as referring to religiously solemnised partnerships as well as civil registered marriages. Many people use the terms ‘husband’ and ‘wife’ to cover their situation irrespective of the strict legal definition of these terms. The very low proportion of ‘other partnerships’ recorded in the data suggests that this group interpreted the marital status question relatively more loosely than other groups may have done. As noted above, though, other factors such as immigration will have influenced this pattern to some extent.

Table 29

Average Number of Children for Asian Women
By ethnicity, marital status and area type

Area Type and Marital Status	Ethnicity						Population
	Asian Only	Asian and Māori Only	Asian and European Only	Asian, Māori and European	Asian and Other Combinations	Total Asian	
	Age Adjusted Average Number of Children						Number
North Island Main Urban							
Legally Married	2.05	1.89	2.35	2.60	3.25	2.07	28,080
Partnered - Other	1.60	1.02	1.03	0.85	2.50	1.66	1,893
Not Partnered	1.46	1.24	2.25	2.50	2.15	1.50	16,899
Total (incl not specified)	1.86	1.58	2.56	2.37	2.75	1.88	48,933
North Island Other Urban							
Legally Married	2.15	1.78	2.74	3.41	1.76	2.21	1,344
Partnered - Other	0.71	0.84	1.14	1.95	0.49	1.70	120
Not Partnered	1.53	1.53	1.90	1.33	2.15	1.75	597
Total (incl not specified)	1.96	1.76	2.96	3.08	2.46	2.04	2,139
North Island Rural							
Legally Married	2.15	2.26	3.21	3.89	2.59	2.35	741
Partnered - Other	1.58	0.76	1.06	1.10	0.50	1.68	75
Not Partnered	1.44	1.27	0.97	1.13	0.00	1.66	285
Total (incl not specified)	1.97	2.34	3.17	2.63	2.36	2.14	1,128
Total New Zealand (incl South Island)							
Legally Married	2.04	1.87	3.16	3.01	3.13	2.07	34,041
Partnered - Other	1.51	1.08	1.21	1.62	2.54	1.69	2,442
Not Partnered	1.45	1.35	2.35	2.22	2.21	1.51	21,642
Total (incl not specified)	1.86	1.64	2.66	2.59	2.74	1.88	60,645

Source: 1996 Census of Population and Dwellings

There may well also be other short-term processes at work. For example, many of the women who are of only Asian ethnicities are students studying long-term in New Zealand (most of whom are without children). Women of Asian and at least one other ethnicity are more likely to have been in New Zealand for longer or have been born here. While over 45 percent of overseas-born women of only Asian ethnicities had been in New Zealand for less than five years, over 45 percent of those of both Asian and non-Asian ethnicities had been in the country for 15 years or longer.

Student migration may also partly explain the urban/rural differentials, which for Asian women is not as marked as for women of other ethnicities. Table 30 shows the degree to which full-time study affects this data. Women who were in full-time study (including women who said they were in both full-time and part-time) tended on average to have had significantly fewer children and many more had had no children. This difference was marked across all area types but the effect was, as expected, strongest in areas where there were major tertiary institutions.

It should be noted that people studying in full-time courses or both full-time and part-time courses include not only those women who are young and have not yet started having children, but also women who have returned to education and may have had children already. Moreover it is common for Asian women permanently resident in New Zealand, as with other women, to drop out of education when they are married and/or start having children, thus reinforcing this pattern.

Educational achievement is closely related to the number of children born to Asian women, as it is for all other women. Generally, the higher the level of completed qualifications held by a woman, the fewer children she is likely to have given birth to. Women who said they had a religious affiliation tend to both be married and have had more children than the generally younger group who stated that they did not have a religion (table 31). However, the data is affected by the student effect discussed above, so that all that can be concluded is that for Asian women religion may have a smaller effect than that noted for Pacific women, but not as small an effect as for other women. What is certain is that the key drivers are the same as those that result in higher educational outcomes – primarily this relates to involvement in formal education, but extends also to the social networks and influences this entails.

Table 30

Average Number of Children for Asian Women
By ethnicity, studying status and area type

Area Type and Studying Status	Ethnicity					Total Asian	Population
	Asian Only	Asian and Māori Only	Asian and European Only	Asian, Māori and European	Asian and Other Combinations		
	Age Adjusted Average Number of Children						Number
North Island Main Urban							
Full-time Study	1.45	1.20	1.16	0.87	2.31	1.54	10,191
Not Studying	1.91	1.62	2.59	2.35	2.75	1.93	32,229
All Women	1.86	1.58	2.56	2.37	2.75	1.88	48,933
North Island Other Urban							
Full-time Study	0.87	0.36	0.44	0.21	0.47	0.93	216
Not Studying	1.98	1.71	2.99	2.41	2.41	2.05	1,713
All Women	1.96	1.76	2.96	3.08	2.46	2.04	2,139
North Island Rural							
Full-time Study	1.05	0.63	1.07	0.70	0.00	1.50	120
Not Studying	2.01	2.36	3.00	2.57	2.47	2.16	900
All Women	1.97	2.34	3.17	2.63	2.36	2.14	1,128
Total New Zealand (incl South Island)							
Full-time Study	1.31	1.23	1.49	1.31	2.34	1.40	13,236
Not Studying	1.91	1.66	2.69	2.49	2.73	1.93	39,471
All Women	1.86	1.64	2.66	2.59	2.74	1.88	60,645

Source: 1996 Census of Population and Dwellings

For the relatively small number of married Asian women who are also of other ethnicities, stating a religious affiliation appears to be more strongly related to marital status than for other Asian women. This is a characteristic not observed among other women, including Pacific women. The reasons may be complex and transitional, relating to immigration histories and the characteristics of their partners. In contrast to those of only Asian ethnicity, this group of women is equally likely to have been born in New Zealand or born overseas. They generally have non-Asian spouses who were born in New Zealand. The New Zealand-born women were predominantly of Chinese or Indian ethnicities, whereas the overseas-born also included a number of Filipino women as well as small numbers of other Southeast Asian ethnicities. Moreover, even though those with qualifications tend to have fewer children than those without, the differential is not generally large, related perhaps to one in four of the women having partners of lower educational level than themselves.

While Asian women of multiple ethnicities currently form a small group relative to the population of all Asian women in New Zealand, it is an important group, providing an insight into some aspects of the outcome of social interaction between local populations and new migrant groups. It should be remembered that Pacific women underwent a similar transitional phase in the recent past with consequences for that group's fertility. Comparison of the two populations may shed further light on the processes involved, though this is not attempted here. Further research into settlement issues and long-term outcomes for the families would provide substantial insight how communities in contact modify each other's expectations. How we interpret this affects directly the assumptions we make about future demographic change.

Fertility of New Zealand Women by Ethnicity

Table 31

Average Number of Children for Asian Women
By ethnicity, marital status, religious status and highest qualification

Marital Status, Religious Status and Highest Qualification	Ethnicity						Total Asian	Population
	Asian Only	Asian and Māori Only	Asian and European Only	Asian, Māori and European	Asian and Other Combinations			
	Age Adjusted Average Number of Children							Number
Legally Married								
Religion Specified								
Tertiary Qualification	1.68	1.76	1.97	2.42	2.95	1.72	10,104	
Secondary Qualification	1.98	1.94	2.88	2.33	3.68	2.00	8,340	
No Qualification	2.43	2.22	3.21	2.68	3.30	2.46	5,622	
Total (incl Not Specified)	2.07	1.92	3.10	2.50	3.12	2.09	24,192	
No Religion								
Tertiary Qualification	1.47	1.37	0.87	0.84	0.97	1.48	3,096	
Secondary Qualification	1.69	1.71	1.09	1.13	0.64	1.68	2,733	
No Qualification	2.41	1.84	1.80	1.26	1.74	2.45	2,277	
Total (incl Not Specified)	1.99	1.69	1.98	1.21	1.43	2.02	8,142	
Partnered - Other								
Religion Specified								
Tertiary Qualification	1.69	0.33	0.47	1.05	0.49	1.73	636	
Secondary Qualification	1.41	0.60	0.90	0.86	1.06	1.39	549	
No Qualification	1.17	1.45	1.33	1.78	2.80	1.89	285	
Total (incl Not Specified)	1.68	1.09	1.15	1.61	2.32	1.79	1,470	
No Religion								
Tertiary Qualification	0.18	0.61	0.24	0.80	0.31	0.34	381	
Secondary Qualification	0.37	0.70	0.15	0.78	0.18	0.45	306	
No Qualification	0.89	0.70	1.08	0.67	0.31	1.14	111	
Total (incl Not Specified)	0.43	0.63	1.14	0.91	0.31	0.60	798	
Not Partnered								
Religion Specified								
Tertiary Qualification	1.05	1.18	1.36	0.94	2.60	1.13	3,627	
Secondary Qualification	1.37	1.33	1.47	1.58	1.88	1.40	6,744	
No Qualification	1.96	1.62	2.26	2.47	2.18	2.02	3,492	
Total (incl Not Specified)	1.53	1.33	2.18	2.16	2.23	1.58	13,932	
No Religion								
Tertiary Qualification	0.95	1.01	0.75	0.45	0.69	0.99	1,644	
Secondary Qualification	0.99	2.02	0.80	0.49	0.22	1.08	3,249	
No Qualification	1.52	2.01	1.78	1.40	2.17	1.67	1,446	
Total (incl Not Specified)	1.24	1.61	2.36	1.11	2.17	1.30	6,360	
Total								
Religion Specified								
Tertiary Qualification	1.52	1.53	1.70	2.39	2.79	1.55	14,847	
Secondary Qualification	1.81	1.71	2.96	2.18	2.61	1.83	16,326	
No Qualification	2.27	1.97	2.76	2.59	2.97	2.31	9,888	
Total (incl Not Specified)	1.91	1.68	2.60	2.33	2.79	1.93	41,295	
No Religion								
Tertiary Qualification	1.35	1.15	1.13	0.85	1.00	1.35	5,283	
Secondary Qualification	1.49	1.66	1.31	0.95	0.60	1.51	6,558	
No Qualification	2.09	1.96	2.75	1.43	2.47	2.12	4,014	
Total (incl Not Specified)	1.74	1.62	2.63	1.26	2.51	1.75	15,924	

Source: 1996 Census of Population and Dwellings

Chapter 7

Multiple Ethnicity, Families and Fertility

This chapter touches upon a few of the key issues related to multiple ethnicity, ethnic mobility, ethnic complexification, families and fertility, and how these processes contribute to what has frequently, and a little misleadingly, been called the “ethnic mosaic” of New Zealand society.

There is a central difficulty in understanding what multiple ethnicity, as reflected in the data, actually means. Ethnicity is neither fixed nor uniform. People may define their ethnicities differently or identify with different ethnicities depending on their perceptions, at that time, either of what their ethnicities are or what they perceive the purpose of the data to be. Examples of what may affect responses are the social environment in which the data is collected, what question is being asked and whether the question is self-completed or interviewer-administered.

We treat each group or combination as an entity, yet there are differences in the ‘degree of belonging’ which blend across the interfaces and each ethnicity will operate differently relative to the others at different points in time and in different spatial, social and economic environments. Moreover, a person giving two or more responses may or may not intend these to be considered as discrete responses – it is also possible that the respondent is attempting to describe what they perceive as a complex ethnicity consisting of a blend of several ethnicities.⁹ As Sperber (1996) has noted, these considerations are of vital importance to an analysis of culture and ethnicity. While they remain largely outside the analytical capacity of our data, this is a fundamental element in the conceptual frame for this analysis.

Table 32

Women with More than One Specified Ethnicity by Age and Ethnicity

Age Group (Years)	Ethnicity				
	European	Māori	Pacific	Asian	Other
	Percent				
15-19	24.68	54.52	46.86	20.22	47.45
20-24	19.95	49.12	38.40	18.28	44.41
25-29	17.92	44.91	29.83	15.01	35.59
30-34	16.89	43.30	27.73	12.11	33.50
35-39	15.28	41.83	27.33	11.78	37.97
40-44	13.58	40.04	23.08	11.06	38.45
45-49	12.11	38.47	19.38	12.17	43.03
50-54	11.79	34.94	19.85	14.26	45.23
55-59	12.10	33.34	19.57	13.76	43.79
60-64	11.56	32.51	19.85	9.47	47.00
65 and over	10.33	36.01	21.83	11.72	42.46
Total	14.91	43.78	30.43	14.35	40.31

Source: 1996 Census of Population and Dwellings

⁹ Blending of ethnicities in this way is also implicit in the “cultural omnivore” thesis (Emmison, 2003). The socio-economic landscape associated with cultural plurality described by Emmison is very similar to the relationship between socio-economic status and ethnicity found in the patterns being described here.

Figure 4

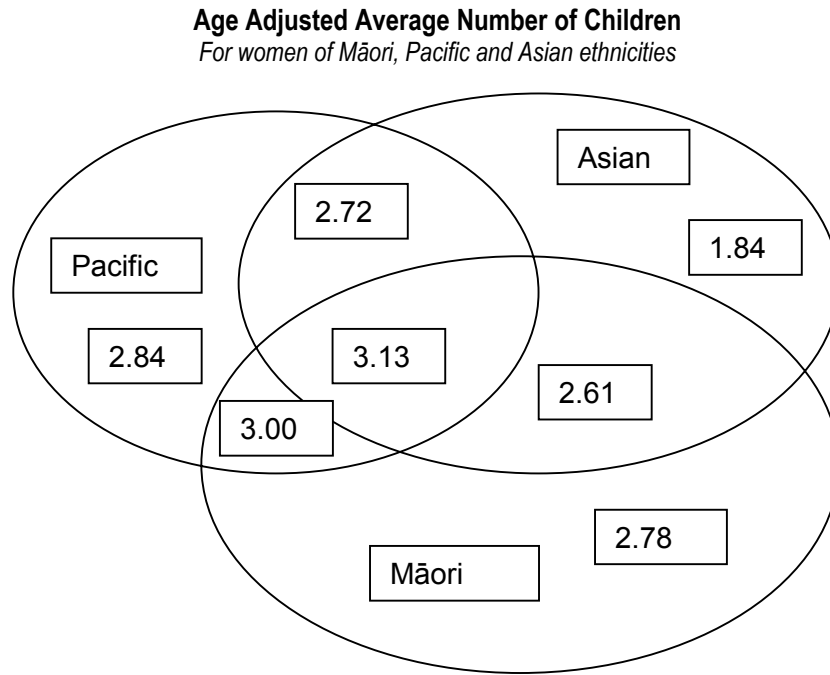
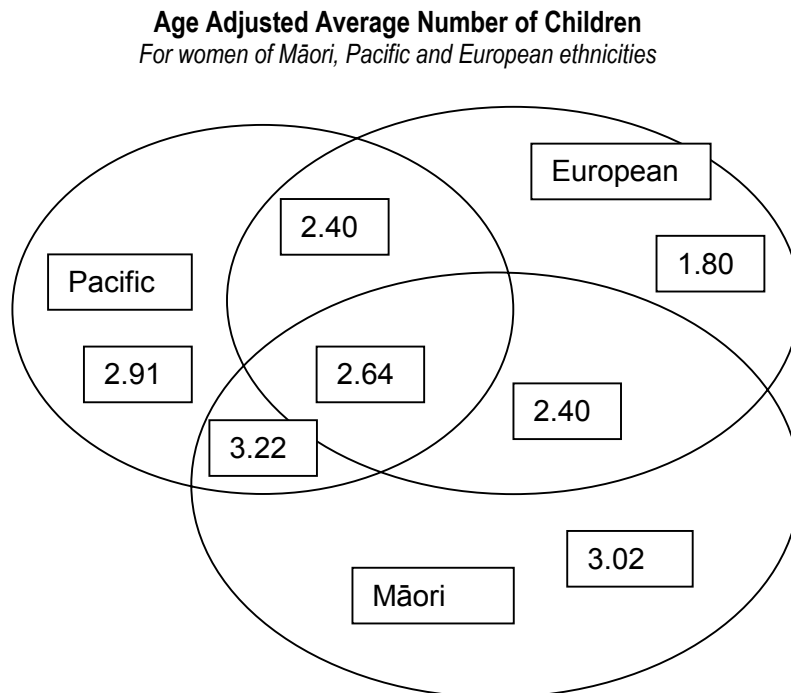


Figure 5



A comparative analysis of women by the number of ethnicities stated and by the specific combinations of ethnicities provides an interesting insight into ethnicity and how the associated fertility patterns are modified. Women of European ethnicities who report two or three ethnicities are much younger than those with one ethnicity, with a median age of 35.0 years for those with more than one ethnicity and 42.2 years for those with one stated ethnicity. Multiethnic woman of Māori ethnicity are also significantly younger (with median ages of 29.4 years and 33.3 years respectively) though there is a less pronounced preference for identifying with only one ethnicity among older women than is seen among European women. Both Asian and Pacific women follow a similar pattern (29.3 and 33.3 years for Asian women and 26.5 and 32.7 years for Pacific women). The striking aspect of table 32 is that multiple ethnicity is much stronger feature of Māori, Pacific and Other women at all ages than it is a feature of Asian and European women.

Whereas in the 1996 Census nearly 44 percent of Māori women, 40 percent of women of Other ethnicities and 30 percent of Pacific women reported more than one ethnicity, less than 15 percent of Asian and European women did so. The younger age groups were generally more likely to have multiple ethnicity than older age groups. The fact that the percentage for Asian and European women is the same is contrary to the frequently posited 'small-population' effect since the Māori population is larger than, and the Pacific essentially the same as, the Asian population. At least part of the explanation lies in the degree of cultural diversity among the Asian and European populations and a degree of similarity between the Māori and Pacific peoples, together with the large overlap between the latter two populations.

When we analyse multiple ethnicity we have to make some difficult decisions. In the 1996 Census, a maximum of three ethnic groups was captured for any one individual. Even at the five highest levels of output categories (with the 230 categories summarised into European, Māori, Pacific, Asian, Other), in a collection limited to three responses per record there are 25 different ethnic combinations.

The number of people identifying with ethnicities in more than one group is significant, even at the highest level. The effect of the interaction between groups can be seen by examining the relationship between the Māori, Pacific and Asian ethnic groups¹⁰ (figure 4) and between the Māori, Pacific and European ethnic groups (figure 5). We can immediately see that the fertility of women who are of both Māori and Pacific ethnicities is higher than either the Māori/non-Pacific group or the Pacific/non-Māori group. Conversely, in each case European ethnicity was associated with lower fertility, as can be deduced by comparing the Māori/Pacific group at 3.00 in figure 4 with 3.22 in figure 5. The Māori/Pacific group in figure 4 includes women who are of Māori, Pacific and European ethnicities who have a much lower fertility than women who do not have European ethnicities (in figure 5).

In an extremely interesting note, Asenati Liki pointed to one of the underlying assumptions in both the physical and ethnic mobility of people. She observed that "the assumption [is] that the movement of skilled people is strictly a one-way flow to the places of destination and thus portrays those who move as people detaching themselves physically and socially from the homeland and from cultural values" (Liki, 2001, 67–68). As she observes, this assumption is clearly false. While Liki applied this comment specifically to the international migratory process commonly known as brain drain, this has a wider significance, not just for skilled people, nor indeed just for geographic mobility. It is becoming increasingly clear that the way in which geographic migration affects a population has many parallels in the processes of migration of people between other types of pigeonholes into which they may be categorised. One of the areas in which this is especially significant is in ethnic mobility.

Ethnic mobility, which is defined as a person choosing to change the ethnicities with which he or she identifies over time, operates at the individual level but the consequences have an impact at group (such as family or community) levels. These changes contribute over time to the nature of the ethnic profile of larger social units. As Jonsson has expressed it, "ethnicities change over time, they are relative to other ethnic designations, and there are levels to any one ethnic label" (Jonsson, 1998, 30).

Ethnic mobility is a universal characteristic of societies that interact with each other in complex ways, with consequences for the interpretation of fertility trends. Ethnic dynamics within families illustrate some aspects of this. We cannot be entirely sure whether the patterns of ethnic mobility observed within families result from children choosing different ethnicities from their biological parents. These patterns may also result from reconstituted families, adoption of children, or a more complex bilateral individual ethnic mobility whereby the parents or children (or indeed both) have changed ethnicity over time. A person may change ethnicity in the course of life-stage transitions or as the social setting changes. Thus, any or all of the participants may have changed ethnicity. These changes may converge to become the same, as may happen during family formation, or to become different, as may happen during family dissolution. A further factor is the relationship between ethnic mobility and change of location geographically.¹¹

10 In a Venn diagram, only three categories can be satisfactorily displayed in two dimensions, so Pacific only women, for example, refers to women who are not also either Māori or Asian, but does include women with Pacific and European or Other ethnicities as well as women of only Pacific ethnicities.

11 To quantify this requires data for specific individuals to be matched across several equivalent surveys or censuses. This is not a viable option at this time. Two key problems contribute to this lacuna – lack of consistent questions and confidentiality issues related to the data itself.

There is an intriguing aspect of the relationship between ethnic mobility and the number of children a woman has given birth to. The ethnic composition of women who are childless is extremely similar to the population of all women. But infecundity in New Zealand is higher than many other countries, suggesting that a cultural component is involved. Moreover, the age at which women start having children appears to vary with ethnicity, as does the number of children a woman is eventually likely to give birth to. This suggests that perhaps the choice of ethnicity on the part of women is partly influenced by perceptions of peer-group expectations with respect to the number of children she has given birth to, along with the associated socio-economic consequences. Similarly, each age group of mothers has a distinct ethnic profile that varies with the number of children. How does this phenomenon arise? Does the ethnicity of the mother partially determine the number of children she has had at a given age, or does the ethnicity she reports at that time partially result in some complex way from the number of children she has given birth to? Ethnicity is closely linked to social and cultural environments. Factors such as peer expectations and social perceptions play a part here, but are not reflected explicitly in the data. A number of contributing factors in the migration and social histories of the women play a role in this process.

Women in families may or may not share all, or indeed any, of the ethnicities of either their partners or their children. Moreover, the increasing occurrence of multiple ethnicities implies that cultural affiliations may change over time and thus recorded ethnic responses may vary. This can contribute to what may be termed 'dilution effects', which is one outcome of inter-ethnic mobility. As each generation becomes ethnically more diverse, the children are less likely to identify with all the ethnicities of their parents. However, this does not necessarily result in less ethnical diversity, merely that the ethnic mix changes, with consequential losses to some groups. This phenomenon has been noted in analyses of ethnicity elsewhere also: a person may identify with the ethnicities of the parents, but perhaps will recover ethnicities of their grandparents (Petersen, 1997, 274) or, increasingly, adopt new ethnicities from their peers. If each parent identified themselves as being of, say, four ethnicities and each set of ethnicities were different for each parent, then it is likely that the child will not identify with all of the ethnicities of the parents. The child may identify with a subset of these, or maybe with different ethnicities from either parent. This process will have an impact on various demographic rates, including the apparent total fertility rate of specific ethnic groups and may influence the effective replacement level applicable to a particular ethnicity group.

The ethnicity of mothers and the associated fertility patterns are two components of a much more pervasive and complex process. To a degree, change in ethnicity, and in the measures based on ethnicity, is affected by the phenomenology of ethnicity within families. To gain some idea of the magnitude and character of this, we can look at the ethnicities shared by parents and children, and whether ethnicities tend to be drawn from one, both, or neither parent. We can also consider where ethnicities may have been lost, for example, where a parent reports an ethnicity that the child does not. This is no more than indicative, of course, since not all ethnicities of the respective members of the group may have been recorded.

A number of important elements will affect this. For example, intuitively one would expect a major influence to be who completed the individual form on behalf of the child when the child was too young to do so itself. This is information we do not have, although we are able to identify the relationship between the child and the person who completed the dwelling form. Similarly, a child living with non-biological parents might be expected to be more likely to have different ethnicities. However, these are issues not readily addressed from the data we have.

Table 33

Number of Children Born by Number of Children in Family
For female partners in families

Number of Children Born	Number of Children Currently in Family									
	None	One	Two	Three	Four	Five	Six	Seven	Eight or More	Total
None	118,281	6,252	2,889	663	195	60	24	9	6	128,382
One	19,272	90,582	4,194	984	219	57	21	15	3	115,350
Two	66,585	39,390	138,399	4,110	810	183	39	18	9	249,549
Three	58,827	29,379	25,677	66,234	2,004	336	84	21	12	182,577
Four	33,450	14,970	9,960	10,416	20,079	885	186	48	21	90,009
Five	13,719	6,129	3,738	3,021	3,147	4,485	246	57	21	34,557
Six	6,306	3,129	1,662	1,245	1,140	1,092	1,353	96	36	16,062
Seven	2,805	1,692	1,242	657	417	342	288	330	45	7,821
Eight or More	3,093	2,325	1,296	699	384	273	231	171	246	8,730
Not Specified/Object	25,827	17,412	13,155	5,934	2,136	714	279	102	66	65,637
Total	348,168	211,257	202,218	93,963	30,540	8,433	2,751	864	483	898,671

Source: 1996 Census of Population and Dwellings

From table 33, it is clear that in a proportion of families some or all of the children are not living with their mother. Similarly, some families include children who are not the biological children of the female partner. Only 53 percent of families contain the same number of children as the female partner stated she had given birth to. This also includes cases of blended and adoptive families which coincidentally result in the same number of children in both cases, but these are invisible in the data, so the proportion of families consisting of all and only biological children is likely to be smaller than this. While this problem limits analysis, there is potential for some useful conclusions to be drawn. The proportion is strongly dependent on the age of the mother, ranging from a high of nearly 91 percent for mothers aged 15 to 29 years with one child to around 7 percent for mothers aged 60 to 74 years with one child.

Table 34 includes only two-parent families in which the number of children ever-born equals the number of children in the family, all children were at home on census night and ethnicity was specified in both parents and the child. Among these families, most (93 percent) children of European ethnicity have both parents of European ethnicity, but for children of Māori ethnicity, around 24 percent shared this ethnicity with their male parents only and nearly 32 percent with their female parents only. Only 44 percent shared this ethnicity with both parents. This pattern holds more strongly for both Pacific and Asian children; for example, over 49 percent of the Asian children deriving their Asian ethnicity from their mother only. For European, Māori, Pacific and Asian children who share the same ethnicity as one parent only, there is an increasing tendency for the ethnicity to be shared with the female rather than male parent.

Table 34

Ethnicity of Children by Ethnicity of Parents for Two-Parent Families
Where number of children born to female parent equals number of children in family

Ethnicity of Parents Relative to Child in Family	Ethnicity of Child ⁽¹⁾				
	European	Māori	Pacific	Asian	Other
	Number				
Both Parents Same	403,077	28,887	6,321	2,247	636
Father Only Same	12,720	15,900	3,624	1,761	483
Mother Only Same	16,005	21,117	5,799	4,638	465
Neither Same	2,223	549	1,080	843	246
Total	434,025	66,453	16,821	9,489	1,830
	Percent				
Both Parents Same	92.9	43.5	37.6	23.7	34.8
Father Only Same	2.9	23.9	21.5	18.6	26.4
Mother Only Same	3.7	31.8	34.5	48.9	25.4
Neither Same	0.5	0.8	6.4	8.9	13.4
Total	100.0	100.0	100.0	100.0	100.0

Source: 1996 Census of Population and Dwellings

(1) Based on total responses, where the child and both parents have specified ethnicities.

Nevertheless, it does not follow from this that, in general, children predominantly gained their ethnicities from one or other parent (Didham, forthcoming). An increasing proportion of families includes children from previous unions of one of the partners. Children are more likely to live with their mothers than their fathers.

Two processes are involved for families that have been together for some time. Firstly, while inter-ethnic partnership formation is common, there is evidence that partners tend to adopt the other partner's ethnicities,¹² especially in partnerships of longer duration. Secondly, ethnic mobility is at least in part driven by self-perception of the norms associated with particular ethnicities. Hence, families with few children may tend to migrate to ethnicities associated with low fertility while those with larger families may tend to prefer to identify with ethnicities associated with higher fertility.

This process is at least part of the explanation behind the trend for Pacific and Māori fertility pattern to merge, just as the European and Asian pattern has done. The fertility pattern of the first generations in the prime childbearing ages of New Zealand-born Pacific women, many of whom were of both Māori and Pacific ethnicities, is one of the important contributors to this feature. This group also often has European ethnicity and this is reflected in the pattern for European women in their early twenties for some areas within New Zealand.

Not only does the population currently fall into two broad patterns, these patterns are tending to merge into a single pattern as each component completes its respective transition to older stable profiles. Women are having fewer children overall and those who delay their childbearing beyond their twenties are starting families at different ages relative to their reported ethnicities. One of the key elements in the degree of delay is participation in tertiary education and associated work force activity.

However, teenage fertility strongly affects access to both education and labour market opportunities and this may have long-term consequences for some ethnic groups. It is too early to be able to assert that teenage fertility among Māori and Pacific women is on the verge of a major decline, because teenage pregnancy (births plus abortions) has remained stable for the last two decades (Boddington, Khawaja and Didham, 2003). This may slow the rate of convergence between the two broad fertility patterns.

Further research would vastly improve our knowledge in this area, and allow us to build on what we are able to glean from census data and data from other social surveys carried out within statistical agencies or research centres.

¹² We can only indirectly surmise this by comparing historical patterns of intermarriage with census families in the absence of an appropriate social survey. While there are major limitations with this approach, there is little alternative data available.

Chapter 8

Conclusion

When we consider fertility and ethnicity in the New Zealand context, inevitably the issue of the future shape of the population arises. Part of the dialectic revolves around current ethnic differentials in fertility, implying that these differentials will perhaps be maintained in the population. This overlooks some key factors affecting demographic dynamics in no small measure, and impacts on the sustainability of a range of social, economic and environmental resources.

Not only are fertility rates falling for almost every population in developed and most developing countries, but in countries with a diverse range of sub-populations the components of the population are also tending to converge to a common norm for the country as a whole.¹³ The unknown factor is how fast this change is occurring for each component and this has significant implications for the future composition of the population. In some respect this can be modified in the short term by changes in migration patterns and sources of immigration, but over the longer period this has little effect on the transition to an older stable population. The rate at which fertility drops changes the timing of this transition and the ultimate size of the population, rather than its eventual shape. This is of fundamental importance for sustainable development. As we have shown both here and elsewhere, the key driver in this process is not ethnic diversity so much as education, especially female education.

This also points to a factor that is currently maintaining the fertility differentials between women of different ethnicities, yet is responsible for the differences in the rates at which their fertilities are changing. There are discrepancies between the average educational levels of different ethnic groups, and these differences tend to coincide with the over-all socio-economic status of the group. However, this discrepancy is to some extent inextricably related to the migration histories and age structure of the women concerned, and of their wider family context. Thus, birthplace, age and ethnicity are the underlying factors and education is the behavioural modifier. But as Webster has put it: “[ethnic] identity is part of the process of both legitimating and effecting a cultural identity. We are content, therefore, to ask the New Zealand people what they want to call themselves, and then to see whether there are cultural values bound up within those preferences.” (Webster, 2001, 95). This *a posteriori* approach to defining ethnicity to some degree ensures that patterns emerge which fit the preconceptions.

We have looked at various aspects of the New Zealand women relative to the responses they provided in the census on the number of children they had given birth to and the ethnicities with which they stated they identified at the time of the census. We have made the fundamental, and to some extent unquestioned, assumption that these two pieces of information bear some relationship to each other. This assumption, however, may be untenable. It may transpire that ethnicity is less important as a determinant than other factors such as the geographic nature of the place where women grew up or raised a family. This may extend to country of birth for women born overseas.

However, ethnicity is a useful surrogate for grouping people according to social, cultural and historical communities of common interest and behaviour. It is also a frame of reference within which a considerable amount of policy is formulated and administered. This lends ethnicity a functional significance, which makes the understanding of the relationship between and within ethnicities important. For smaller ethnic groups, there is also generally substantial similarity between the characteristics of women of particular ethnicities whether they were born in New Zealand or elsewhere. Clearly this similarity holds less securely for the large, more diverse, groups and for groups characterised by higher levels of multiple ethnicity, except when other factors, such as educational achievement, are equal.

¹³ Increasingly, convergence of this type is occurring internationally. For example, the provisional Total Fertility Rate (TFR) for the United States, one of the few countries currently experiencing relatively high fertility, in 2001 was 2.12, but the TFR of all races were converging: they report whites up to 2.11, blacks down to 2.19, American Indians down to 2.10 and Asians and Pacific Islanders down to 2.07 (Martin et al, 2002). The reasons for the global decline are unclear, with most of the theories associating the trend with globalisation and with a range of interrelated economic, health, educational, cultural and environmental factors.

We have shown that women of European and Asian ethnicities generally have lower fertility as a group than women of Māori or Pacific ethnicities. However, within each of these groups there is a considerable level of diversity which, when analysed, shows that within these groups there are often subgroups which more closely resemble women outside the group as a whole than their counterparts within the group. Hence much of the apparent diversity between the groups results from the nature of the diversity within the groups. An important implication of this is that to some extent, ethnicity is associated with differing fertility outcomes. But it is not clear to what extent ethnicity results in these outcomes, as opposed to fertility outcomes resulting in identity with an ethnicity.

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