

Measuring Changes in Family and Whānau Wellbeing Using Census Data, 1981–2006: A preliminary analysis

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Contents

Executive summary.....	5
1 Introduction.....	6
1.1 Context.....	6
1.2 The Family and Whānau Wellbeing Project (FWWP).....	6
1.3 Report purpose.....	6
1.4 Report structure.....	7
2 Methods.....	8
2.1 Data source and data access.....	8
2.2 Family and household definitions and classifications.....	9
2.3 Family types and the presentation of results.....	10
3 Changes in family wellbeing.....	14
3.1 Income domain.....	14
3.2 Work domain.....	16
3.3 Education domain.....	17
3.4 Housing domain.....	18
3.5 Health domain.....	21
4 Changes in family wellbeing for families with at least one Māori parent.....	22
4.1 Income domain.....	22
4.2 Work domain.....	23
4.3 Education domain.....	25
4.4 Housing domain.....	26
4.5 Health domain.....	28
5 Discussion.....	29
5.1 Summary of main findings: interpretation and implications.....	29
5.2 Strengths and limitations.....	33
5.3 Future research directions.....	33
5.4 Conclusion.....	34
Appendix A Working with data from the census.....	35
Appendix B Subject population and units of analysis.....	36
Appendix C: Families/households.....	37
References.....	40

List of tables

Table 2.1 Family/household classifications.....	10
Table 2.2 Family/household classification distribution, including unused classifications.....	11
Table 2.3 Family wellbeing indicators used in this report.....	13
Table 3.1 Jensen median real (1999 dollars), gross, equivalised family/household income, by family/household type, 1981–2006.....	14
Table 3.2 Low income, by family/household type, 1981–2006.....	15
Table 3.3 Lack of paid employment, by family/household type, 1981–2006.....	16
Table 3.4 Long hours worked, by family/household type, 1981–2006.....	17
Table 3.5 Lack of any educational qualification, by family/household type, 1981–2006.....	17
Table 3.6 Lack of post-secondary educational attainment, by family/household type, 1981–2006.....	18
Table 3.7 Lack of home ownership, by family/household type, 1981–2006.....	19
Table 3.8 Low rental affordability, by family/household type, 1981–2006.....	19
Table 3.9 Crowding, by family type, 1981–2006.....	20
Table 3.10 Health-related income support, by family/household type, 1981–2006.....	21

Table 4.1 Jensen median real (1999 dollars), gross, equivalised family income, by family type, 1981–2006, for families with at least one Māori parent.....	22
Table 4.2 Low income, by family type, 1981–2006, for families with at least one Māori parent.....	23
Table 4.3 Lack of paid employment, by family type, 1981–2006, for families with at least one Māori parent	24
Table 4.4 Long hours worked, by family type, 1981–2006, for families with at least one Māori parent.....	24
Table 4.5 Lack of any educational qualification, by family type, 1981–2006, for families with at least one Māori parent	25
Table 4.6 Lack of post-secondary educational attainment, by family type, 1981–2006, for families with at least one Māori parent	25
Table 4.7 Lack of home ownership, by family type, 1981–2006, for families with at least one Māori parent	26
Table 4.8 Low rental affordability, by family type, 1981–2006, for families with at least one Māori parent.....	27
Table 4.9 Crowding, by family type, 1981–2006, for families with at least one Māori parent.....	27
Table 4.10 Health-related benefits, by family type, 1981–2006, for families with at least one Māori parent	28

Executive summary

The impact of the rapid and far-reaching economic, social and political changes and reforms of the 1980s and 1990s on different family types is not as well understood as the effect of the reforms on the economy. This publication aims to contribute to filling this gap by examining changes in the wellbeing of a range of different family types over the period 1981–2006. These changes are examined using a series of family wellbeing indicators constructed from data available in Statistics New Zealand's five-yearly Census of Population and Dwellings. The main advantages of using census data are that they provide a consistent and long time series of social data and that, because of their scale, they allow the effect of change on small population groups to be examined.

Given the absence of an overall index of wellbeing for each family type in this analysis, it is difficult to quantify the overall change in family wellbeing over the period. However, if income is taken as the best measure of levels of wellbeing, then for both sets of analyses almost all family and household types became better off over the 25 years in question. Furthermore, all family and household types in both sets of analyses improved their educational and employment levels. However, almost all family and household types worked longer hours, experienced declining levels of both home ownership and rental affordability, and had increasing receipt of health-related benefits. The picture with regard to crowding was mixed, with levels of crowding declining for most Māori families and some family types in the all families analysis, but increasing for others.

Although the usefulness of this analysis is restricted due to limitations in the range of indicators available from census data, it does provide a unique means of examining changes in family wellbeing for small population groups over the 25-year period, that is not available from other data sources. In addition, including data points from 1981 provides information about changes occurring in the early period of reforms that is not available from other sample surveys (for example, the Household Labour Force Survey, which measures unemployment, began in 1986).

1 Introduction

1.1 Context

During the 1980s and 1990s New Zealand experienced a long period of extensive economic, political, social and demographic change. After taking office in 1984, the Labour Government deregulated and privatised large sectors of the economy, removed subsidies and tax exemptions in many areas, lowered overall rates of personal tax, allowed the New Zealand dollar to float, restructured some government departments along commercial lines (subsequently selling some), and prioritised price stability as a primary policy objective (Dalziel & Lattimore, 2004).

The economic reform process continued through the 1980s and deepened with the election of the National Government late in 1990. Once in government, National moved to deregulate the labour market and reduce welfare spending by cutting benefit levels for many welfare recipients, and by increasing the use of means testing or targeting of support. The remainder of the 1990s was marked by ongoing economic reforms. The primary social impacts of these reforms were high and rising rates of unemployment, which peaked in 1992, and increased levels of socio-economic inequality, which rose steadily over the period (Mowbray, 2001). The demographic changes during this time included an increasing number of single-parent families, smaller families, a population whose average age was increasing, and an increasingly ethnically diverse population.

In 1999 a Labour government returned to power and, while not altering the fundamental direction of the economic reforms, introduced a series of measures to ameliorate some of the negative outcomes of these reforms. These measures included the reintroduction of income-related rentals for state-owned housing, restoring the link between superannuation and average wages, boosting low incomes via regular minimum wage increases, reducing fees for primary health care for many people, and greatly expanding the use of in-work tax credits to supplement low wages (Lunt, O'Brien, & Stephens, 2008).

1.2 The Family and Whānau Wellbeing Project (FWWP)

The FWWP is a five-year research programme supported by the Social Science funding pool of the Foundation for Research, Science and Technology (FRST). The principal goal of this programme is to develop ways to monitor possible social and economic influences on family and whānau wellbeing, and examine how these have changed over the 1981–2006 period.

1.3 Report purpose

The purpose of this report is to use census data to detail changes in family wellbeing for particular family and household types over the period 1981–2006. Some contextual material is provided as background to the observed changes in family wellbeing, but the report does not seek to provide full explanations for the changes in wellbeing observed. The report contains two examples of the types of analysis that can be conducted with the data available, and it is hoped that its publication will inspire further analyses of these data by others with specialist knowledge and more detailed primary information in the appropriate areas.

1.4 Report structure

After this introduction, section 2 covers the use of census data, the family and household classifications, and the wellbeing indicators analysed in the report. Section 3 contains an analysis of all families by a range of family types using each of the indicators, showing changes in the wellbeing of each of these family types across census points over the period 1981 to 2006. Section 4 provides a sub-group analysis for those families with at least one Māori parent, again looking at each of the indicators in turn. Section 5 draws together the results of the previous two sections, and discusses trends and outcomes for different family types for each indicator. It also includes data from other analyses conducted in New Zealand, where these are relevant and available for the particular indicator under discussion. Appendices explain aspects of the methodology used to construct the indicators and family classifications.

2 Methods

2.1 Data source and data access

All data used in this report were derived from the New Zealand Censuses of Population and Dwellings conducted between 1981 and 2006 by Statistics New Zealand. The research team obtained access to confidentialised unit record data through Statistics New Zealand's secure Data Laboratory facility in Auckland. No personal identification information supplied on the original census forms, such as name and address, is carried over to the computer records held by Statistics New Zealand, and these details are therefore not available to any data users.

Further details on data access are given in appendix A.

2.1.1 Using census data to measure wellbeing

The primary advantage of using census data is that it allows for an assessment of continuity and change in societal patterns over a long segment of time. In addition, information obtained from the census covers (almost) all members of the population, allowing us to examine the wellbeing of all New Zealanders, as well as providing information on small population groupings (such as ethnic minorities).⁴

The census collects information on all individuals living in a common dwelling unit or household. This means we can conduct family- and household-level analysis, acknowledging the fundamental interdependence between family members and showing how the impact of wider change has varied according to family and household type.

The disadvantages associated with using census data to measure changes in family wellbeing are linked to the limited range and depth of information collected, the frequency of collection for some data, and the way in which family types are defined and measured. First, the selection of indicators is constrained by the information available through census data. Family and household wellbeing may be influenced by other factors (for example, the perceived quality of family/household relationships) for which no census information is available. This lack of suitable information also results in some indicators being indirect proxy measures for a particular attribute. For example, the health indicator examines changes in the proportion of families with an adult receiving health-related benefits, rather than being an actual measure of the state of physical health of a family.

Second, a lack of data availability may constrain time series analysis. Some census questions that may be relevant to family/household wellbeing are no longer asked (for example, housing insulation), while other census information (for example, on smoking) is included on an irregular basis. This means that the monitoring of changes in some domains is less frequent and continuous than is ideal.

Third, a lack of in-depth information may place limits on interpreting change in some indicators. For example, because income data are collected in bands rather than discrete amounts, indicator construction requires a degree of estimation and inference.

⁴ For information on census coverage, see (Statistics New Zealand, 2001b).

Finally, the census definition of ‘family’ only incorporates those family members who live within the same household. Census wellbeing measures may thus be particularly poor indicators for families whose members do not all reside within the one household. In particular, this relates to separated/divorced parents who usually share custody of their children, and children who live across two households. The ability to monitor the wellbeing of those in extended family situations is also constrained by this household-based definition of family.

2.2 Family and household definitions and classifications

Statistics New Zealand notes that:

A ‘family nucleus’ is a couple, with or without child(ren), or one parent and their child(ren) usually resident in the same dwelling. The children do not have partners or children of their own living in the same household. People who usually live in a particular dwelling, and are members of a family nucleus in that dwelling, but who are absent on census night, are included, as long as they are reported as being absent by the reference person on the dwelling form.⁵

In contrast, a household is defined as any group of families or individuals living in the same dwelling, regardless of their relationships to one another. Therefore, census families are wholly contained within households. However, it is important to note that not all households contain families and also that some households are made up of a family or families cohabiting with non-family members.

Family and household units in the census are further classified according to their structure, the dependency status of children, and retirement status. Child dependency is defined in terms of age and labour-force status. All children in family nuclei aged 14 years and under are classed as ‘dependent’. Those aged 15 to 17 years inclusive are also dependent unless they are in the full-time labour force. Children aged 18 years and over are classed as ‘independent’.⁶

In this report the primary focus is the census family unit, and indicators were compiled for these units and cross-classified by family type and child dependency status. This classification consists of five categories: couple without children, couple with dependent children, couple with only independent children, one-parent family with dependent children, and one-parent family with only independent children. In addition to these family groupings, one-person households and retired households were included for comparison.

Where particular family types were living in multiple-family households, they were classified separately into their constituent family types. This action was taken because the focus in this report is on changes in the level of family wellbeing. Note, however, that multiple-family households – that is, one, two, three or more families living in a single dwelling – make up a very small proportion of the total household count.

The full classification scheme, along with definitions used for this report, is detailed in table 2.1.

⁵ <http://www.stats.govt.nz/census/2006-census-information-about-data/information-by-variable/family-type.htm>, accessed 13/1/2008.

⁶ See Statistics New Zealand, (Statistics New Zealand, 2001b, 23) for definitions of ‘child in a family nucleus’ and ‘labour-force status’.

Table 2.1 Family/household classifications

Family/household type	Family/household definition
Couple without children	Two people who reside within the same dwelling and who are in a relationship, whether married, <i>de facto</i> or partners, without any children.
Couple with dependent children	Two people who reside within the same dwelling and who are in a relationship, whether married, <i>de facto</i> or partners, with one or more children who are under 15 years old or between 15 and 17 years of age but not in full-time employment.
Couple with only independent children	Couple with one or more independent (or adult) children who are aged 18 years and over or aged over 15 years and engaged in full-time employment, and no dependent children.
One-parent family with dependent children	Single parent with one or more dependent children, with children who are under 15 years old or 16–17 years of age and in employment.
One-parent family with only independent children	Single parent with one or more independent (or adult) children who are aged 18 years and over or aged 16–17 years and engaged in full-time employment, and no dependent children.
One-person household	One-person household.
Retired family/household	Couple only or one-person household, who are retired. ⁷

2.3 Family types and the presentation of results

For different sections of this report different combinations of family and household structure have been used. For the first substantive section of analysis in section 3, a total of seven family types (as listed in table 2.1) are used. These family and household types have been used to demonstrate the fullest possible range of analysis that can be conducted with these data.

Included in the analysis is a classification of family types based on the presence of either only independent children or any dependent child or children. This expanded breakdown is justified because of the desire to determine whether these two family types exhibit different levels of wellbeing. Due to their age, dependent children are more likely to be reliant on their parents and make little contribution to family income, whereas independent children – as the term suggests – are likely to be making some contribution to family wellbeing. However, in some cases children aged 18 or over who are living at home are doing so because they are students or unemployed, for example, and as such may or may not be making a contribution to the family's level of wellbeing. We recognise that there are other ways in which to define and classify the status of children living in families and households, but have chosen to adopt the

⁷ A couple-only family was deemed 'retired' if both partners were aged 65 years or over, and/or both partners received New Zealand Superannuation, or if one partner was aged 65 years or over and received New Zealand Superannuation. Similarly, one-person households were deemed 'retired' if the householder was aged 65 years or over and received New Zealand Superannuation. Retired couples and single retired people with children were classified into the relevant family grouping.

Statistics New Zealand classification for this analysis. However, the Statistics New Zealand classification has been modified for analytical purposes to display a different range of family types.

In some cases different combinations of family and household types are used when analysing different wellbeing indicators. For example, for the household crowding indicator a reduced number of family/household types is used. In this case, one-person households, retired couples or single persons, and couples without children are excluded from the analysis because of the limited applicability of the crowding concept to their housing circumstances.

Because of problems with missing data in census data collection and derivations, there are further family-type classifications that are incomplete. These are not included in the analyses of this report, but are included in table 2.2, which shows the numbers of the various family/household types in each of the censuses under study. 'Non-family households' have also not been included in this study, as the focus is on family/whānau wellbeing.

Table 2.2 Family/household classification distribution, including unused classifications

Family/household type	1981	1986	1991	1996	2001	2006
Couple without children (excl. retired)	140,907	167,520	193,515	248,181	276,765	318,987
Couple with dependent children	354,276	357,369	339,411	342,267	339,156	370,809
Couple with only independent children	57,555	76,392	77,430	77,616	66,984	75,090
Couple with children, dependency status unknown	36,801	8,046	6,963	6,681	1,650	1,995
One-parent family with dependent children	58,473	82,077	111,018	125,313	140,175	145,032
One-parent family with only independent children	25,350	34,989	38,856	40,764	41,886	47,421
One-parent family with children, dependency status unknown	4,887	1,680	1,872	2,178	855	1,182
Non-family household	68,127	64,623	68,820	66,360	70,434	72,660
One-person household (excl. retired)	73,332	87,216	104,514	125,193	175,365	189,903
Retired couple or single person without children	191,793	218,316	244,989	237,789	232,410	245,382
Family/retirement type not classifiable	384	-	-	30,099	28,677	28,065
Total	1,011,885	1,098,228	1,187,388	1,302,441	1,374,357	1,496,526

2.3.1 Wellbeing indicators

The original set of indicators used for this study was obtained from the work of Milligan et al. (2006). Preliminary analyses of the census datasets suggested several modifications to these indicators. Several indicators formerly defined only at the household level, namely tenure, rental affordability and crowding, were redefined at the family level so that they could be constructed for the new family/household-type classification described in section 2.2. Most of the family-level indicators were retained and household-level results for 'one-person households' and 'non-family households' are presented here for comparison. Further modifications were designed to make the set of indicators easier to interpret and more consistent. For example, where feasible, indicator definitions were modified to ensure that increases in particular indicators indicated a worsening of levels of wellbeing.

In addition, some of Milligan et al's indicators, namely dwelling type, income inequality (Gini coefficients), fuels used for heating, telephone access, motor vehicle access, Internet access and cigarette smoking, are not included in this report. At the national level these indicators were found to be of little use in highlighting changes in wellbeing among family types and across censuses. The indicators analysed in this report are described in table 2.3.

Table 2.3 Family wellbeing indicators used in this report

Wellbeing domain	Indicator name	Definition
Income	Median equivalised income	Median real, gross equivalised family/household income. Equivalised income is gross income adjusted for family composition using the Revised Jensen Scale (Jensen, 1988) and expressed in 1999 dollars using the March quarter CPI (base 1999) for the relevant year (Statistics New Zealand, 2005)
	Low income	The proportion of families/households whose median real, gross equivalised income is less than 60 percent of the median equivalised gross family/household income
Education	Any educational attainment	The proportion of families/households where no adult has any formal educational qualification
	Post-secondary educational attainment	The proportion of families/households where no adult has any post-secondary qualification
Work	Employment status	The proportion of families/households with no adult engaged in formal paid employment
	Hours worked	The proportion of families/households where at least one adult works more than 48 hours per week
Housing	Home ownership	The proportion of families/households that do not live in owner-occupied dwellings
	Rental affordability	The proportion of families/households in rented dwellings, whose weekly rent is greater than 25 percent of the gross equivalised household income ⁸
	Crowding	The proportion of families/households living in dwellings that require at least one additional bedroom to meet the sleeping needs of the household
Health	Health-related benefits	The proportion of families/households with at least one adult receiving either a Sickness or Invalid's Benefit

⁸ In situations where multiple families live in a single dwelling, the total household income is used; all families in such dwellings receive the same score on this indicator.

3 Changes in family wellbeing

This section contains an analysis of changes in family wellbeing for a range of family types over the period 1981–2006, using New Zealand census data, the family types described in table 2.2, and the wellbeing indicators described in table 2.3. As not all family types are included in this analysis (see table 2.2), there is no ‘all families’ row in the tables in this section.

Each table contains a summary measure, which is the percentage change for the particular indicator between 1981 and 2006. The time points are chosen simply because these are the start and end points of the data we have available. Note that in drawing conclusions about the changes that have occurred for each indicator, it is important to trace the trend line within the time period and not just compare the initial and final values.

3.1 Income domain

3.1.1 Median equivalised income

Indicator definition: Median real, gross, equivalised family/household income.

We define median real, gross, equivalised income as median gross income adjusted for family composition using the Revised Jensen Scale (Jensen, 1988) and expressed in 1999 dollars using the March quarter consumers price index (CPI, base 1999) for the relevant year (Statistics New Zealand, 2005). This indicator is broken down by family type in table 3.1.

Table 3.1 Jensen median real (1999 dollars), gross, equivalised family/household income, by family/household type, 1981–2006

Family/household Type	1981	1986	1991	1996	2001	2006	Percentage change 1981–2006
Couple with dependent children	\$35,165	\$33,394	\$33,508	\$34,567	\$38,981	\$44,187	25.7
Couple with only independent children	\$56,649	\$52,965	\$49,362	\$51,448	\$54,657	\$60,225	6.3
One-parent family with dependent children	\$15,520	\$16,708	\$14,565	\$14,311	\$14,594	\$20,274	30.6
One-parent family with only independent children	\$41,145	\$39,195	\$33,537	\$36,253	\$35,182	\$38,208	-7.1
Couple without children	\$56,154	\$52,678	\$51,268	\$51,681	\$54,934	\$58,836	4.8
One-person household	\$42,604	\$43,702	\$39,510	\$35,738	\$40,873	\$41,983	-1.5
Retired couple or single person without children	\$20,118	\$23,391	\$20,391	\$20,035	\$24,222	\$22,331	11.0

Five out of the seven family and household types used in the analysis experienced an overall increase in median equivalised income over the period 1981 to 2006. The largest percentage increases were for one-parent families with dependent children and couples with dependent children, at 30.6 and 25.7 percent, respectively. The two groups to experience decreases over this 25-year period were one-parent families with only independent children and one-person households; their median income declined by 7.1 and 1.5 percent, respectively.

Within the 25 years under examination there are identifiable trends in median equivalised income. For couples with or without children, the trend was for a decline in median income between 1981 and 1991, followed by increases over the period 1991 to 2006. The two one-parent family types had very different experiences. Those with dependent children experienced a decline in median equivalised income from 1986 to 1996, before the slight increase that occurred between 1996 and 2001, followed by a significant increase between 2001 and 2006 to a level higher than in 1981. On the other hand, one-parent families with only independent children experienced a decline in median income between 1981 and 1991, followed by an increase over the period 1991 to 2006, but their 2006 level of income was lower than it had been in 1981.

The median equivalised incomes of one-person households increased slightly between 1981 and 1986 before decreasing over the next 10 years, after which income levels rose but to a point slightly below that of 1981. The retirement group saw their median equivalised income follow a pattern of increases and decreases similar to that of one-person households.

3.1.2 Low income

Indicator definition: The proportion of families/households whose equivalised gross income is less than 60 percent of the median equivalised gross family/household income.

Table 3.2 Low income, by family/household type, 1981–2006

Family/household type	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	19.2	17.5	14.7	16.7	15.7	16.0	-16.7
Couple with only independent children	7.5	3.9	3.2	3.6	6.8	7.5	0.0
One-parent family with dependent children	68	61.8	69.2	67.4	68.5	65.4	-3.8
One-parent family with only independent children	20.1	10.2	11.8	14.6	21.4	21.3	6.0
Couple without children	10.3	7.8	8.0	9.7	10.9	11.0	6.8
One-person household	25.0	21.1	23.7	20.1	31.6	30.6	22.4
Retired couple or single person without children	58.1	28.5	23.1	25.9	48.3	58.5	0.7

A family or household is defined as having low income if its equivalised gross income is less than 60 percent of the median gross equivalised income for all families and households. The incidence of low income across families and households varied across the 25 years under examination and within family and household types. For four out of the seven family and household types – that is, one-parent families with

only independent children, couples without children, one-person households and the retirement group – the likelihood of having low income increased between 1981 and 2006. One-person households experienced the greatest increase in the proportion on low incomes, with most of the increase occurring between 1996 and 2001.

For two out of the seven family types – couples with dependent children and one-parent families with dependent children – the proportion on low incomes declined over the 25 years under review. However, the decrease in the likelihood of being in low income was only slight for one-parent families with dependent children, and over the whole period under examination the low-income rates for this family type were higher than for any other family type. For the remaining family type – couples with only independent children – the proportion on low incomes declined steadily to a low point in 1991, and then increased again to regain the same level it had been in 1981.

3.2 Work domain

3.2.1 Employment status

Indicator definition: The proportion of families/households where there is no adult in formal paid employment.

Table 3.3 Lack of paid employment, by family/household type, 1981–2006

Family/household type	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	4.4	3.4	9.8	8.6	6.9	5	13.6
Couple with only independent children	18.7	17.8	20.8	18	17	14.8	-20.9
One-parent family with dependent children	58.7	62.6	69.1	61.3	50.6	45.9	-21.8
One-parent family with only independent children	64.8	61	62.3	56.9	52.4	48.1	-25.8
Couple without children	6.9	6.7	9.5	9.4	9.5	7.7	11.6
One-person household	15.9	18.6	27.7	26.9	26.7	23.3	46.5

Three out of the six family/household types in the analysis experienced a decrease over the period between 1981 and 2006 in the likelihood of having no adult in formal paid employment. These were couples with only independent children, and one-parent families with either dependent or independent children. Couples with dependent children and couples without children experienced a small increase in the probability of having no adult in formal paid employment over that time.

Between 1981 and 1991 the family and household types identified in table 3.3, with the exception of one-parent families with dependent children, experienced an increase in the proportion where no adult was in formal paid employment. From 1991 through to 2006 all then experienced a decrease in this proportion. However, couples with only independent children, one-parent families with dependent children and one-parent families with only independent children were the only groups experiencing a decrease in the proportion without work such as to take them below the levels attained in 1981.

3.2.2 Hours worked

Indicator definition: The proportion of families/households with at least one adult who works more than 48 hours per week.

Table 3.4 Long hours worked, by family/household type, 1981–2006

Family/household type	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	34.2	40.7	39.6	45	44.3	41.6	21.6
Couple with only independent children	24.6	29.8	31.1	37.9	38.7	37.6	52.8
One-parent family with dependent children	4.6	5.3	5.1	5.9	7.1	7.5	63.0
One-parent family with only independent children	4.9	6.5	7.3	9.1	10	10.5	114.3
Couple without children	24.3	32.6	33.9	39.8	39.7	37.8	55.6
One-person household	16	20.4	19.9	22	20.9	20.3	26.9

All family and household types experienced an increase in the proportion where at least one parent or adult worked more than 48 hours per week over the 25 years under review. The largest increases were experienced by both categories of one-parent families, although in both cases the proportions remain well below those of other family and household types. In addition, the large increase for both categories of single parents was from a low starting point.

3.3 Education domain

3.3.1 Any educational attainment

Indicator definition: The proportion of families/households where no adult has any educational qualification.

Table 3.5 Lack of any educational qualification, by family/household type, 1981–2006

Family/household type	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	33.3	23.2	18.7	21.3	10.2	7.9	-76.3
Couple with only independent children	55.3	39.3	35.4	39.6	24.6	19.0	-65.6
One-parent family with dependent children	63.5	55.9	52.8	55.5	36.3	31.9	-49.8
One-parent family with only independent children	78.7	66.3	62.5	67.6	50.5	44.9	-42.9
Couple without children	32.2	21.7	20.2	24.1	15.4	12.0	-62.7
One-person household	46.0	35.6	35.5	42.4	30.0	26.4	-42.6
Retired couple or single person without children	73.2	52.2	49.3	63.0	46.6	42.1	-42.5

All family and household types experienced a considerable decrease between 1981 and 2006 in the proportion where no parent or adult had any educational qualifications. The largest declines were for couples of all types, except those in the retirement group.

3.3.2 Post-secondary educational attainment

Indicator definition: The proportion of families/households where no adult has any post-secondary educational qualification.

Table 3.6 Lack of post-secondary educational attainment, by family/household type, 1981–2006

Family/household type	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	55.5	40.3	33.2	38.4	33.0	29.2	-47.4
Couple with only independent children	68.5	49.7	43.3	47.8	42.3	37.7	-45.0
One-parent family with dependent children	84.4	76.9	70.0	75.1	66.8	66.1	-21.7
One-parent family with only independent children	88.8	79.8	74.0	77.0	71.9	69.3	-22.0
Couple without children	55.5	39.5	33.1	38.9	35.2	31.6	-43.1
One-person household	70.6	58.8	53.7	60.8	58.3	55.7	-21.1
Retired couple or single person without children	83.3	69.9	65.5	71.5	67.9	63.3	-24.0

Between 1981 and 2006 all family and household types experienced significant declines in the likelihood that no parent or adult held a post-secondary qualification. The largest decreases for most categories occurred between 1981 and 1986. The family types with the largest decreases were both categories of families with children, followed by couples without children.

3.4 Housing domain

3.4.1 Home ownership

Indicator definition: The proportion of families/households not living in owner-occupied dwellings.

Table 3.7 Lack of home ownership, by family/household type, 1981–2006

Family/household type	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	23.7	20.7	19.0	23.7	26.5	32.2	35.9
Couple with only independent children	10.7	8.8	7.2	10.2	14.0	17.5	63.6
One-parent family with dependent children	47.1	45.8	46.4	54.6	57.6	64.0	35.9
One-parent family with only independent children	22.1	22.1	22.9	24.9	29.3	36.8	66.5
Couple without children	30.4	26.5	24.2	25.5	25.9	31.4	3.3
One-person household	54.4	47.2	45.8	44.8	44.3	50.5	-7.2
Retired couple or single person without children	20.3	17.6	17.3	18.6	20.2	24.7	21.7

The only category to increase the likelihood of living in a dwelling they owned over the period between 1981 and 2006 was those living in one-person households. For all other family and household types the proportion not living in an owner-occupied dwelling increased over these 25 years. The biggest increase was experienced by one-parent families with only independent children, followed closely by couples with only independent children, while the smallest increase was recorded by couples without children.

Most family types experienced an increase in the likelihood of living in an owner-occupied dwelling between 1981 and 1991, with the only exception being one-parent families with independent children. However, this trend reversed following 1991 and for most families the biggest decline in the likelihood of living in an owner-occupied dwelling occurred between 2001 and 2006.

3.4.2 Rental affordability

Indicator definition: The proportion of families in rented dwellings whose weekly rent is greater than 25 percent of their weekly gross equivalised household income.

Table 3.8 Low rental affordability, by family/household type, 1981–2006

Family/household type	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	30.0	34.7	51.8	64.0	60.8	50.7	69.0
Couple with only independent children	12.8	15.2	27.4	41.6	41.6	37.4	192.2
One-parent family with dependent children	51.9	53.3	76.1	87.6	81.3	75.4	45.3
One-parent family with only independent children	16.0	18.5	26.9	53.2	42.2	38.1	138.1
Couple without children	13.8	16.7	25.3	29.2	29.5	28.9	109.4
One-person household	18.5	19.4	29.3	36.4	36.1	33.9	83.2
Retired couple or single person without children	24.9	15.3	17.6	44.6	38.1	39.3	57.8

All family and household types experienced an increase in the likelihood of paying more than 25 percent of their weekly gross equivalised income in rent over the period under review. The biggest increase was experienced by couples with only independent children, for whom the likelihood of experiencing decreased rental affordability nearly tripled between 1981 and 2006. Just over 50 percent of one-parent families with dependent children were paying more than 25 percent of their weekly gross equivalised income in rent in 1981, and this had increased to nearly 90 percent in 1996 before declining to just over 75 percent in 2006.

For five out of the seven family and household types the trend over the 25 years was for an increase in the likelihood of paying more than 25 percent of their weekly gross equivalised income in rent between 1981 and 1996, before a decrease between 1996 and 2006. However, for all family types the likelihood they were paying more than 25 percent of their weekly income as rent was much higher in 2006 than it was in 1981.

3.4.3 Crowding

Indicator definition: The proportion of families living in dwellings that require at least one additional bedroom to meet the sleeping needs of the household.

Table 3.9 Crowding, by family type, 1981–2006

Family type	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	21.4	19.6	16.7	15.3	13.8	13.8	-35.5
Couple with only independent children	5.6	6.4	5.6	5.5	5.0	6.1	8.9
One-parent family with dependent children	36.2	36.6	32.1	30.1	26.5	28.2	-22.1
One-parent family with only independent children	9.8	11.8	11.9	12	10.5	12.5	27.6

Couples with dependent children and one-parent families with only dependent children experienced a decrease in the likelihood of living in a crowded dwelling over the period between 1981 and 2006. For both these family types the incidence of crowding peaked in 1986, before declining between 1986 and 2001. Between 2001 and 2006 the incidence of crowding for couples with dependent children remained at the same level, while for one-parent families with dependent children it increased slightly.

In contrast, couples with only independent children and one-parent families with only independent children experienced increases in crowding between 1981 and 2006. For couples with only independent children the increase was slight: from 5.6 percent in 1981 to 6.1 percent in 2006. Similarly, for one-parent families with only independent children the increase was not large: from 9.8 percent in 1981 to 12.5 percent in 2006.

For three out of the four family types the incidence of crowding rose between 2001 and 2006, while for the remaining type it remained unchanged over this period.

3.5 Health domain

3.5.1 Health-related income support

Indicator definition: The proportion of families with one or more adults receiving either a Sickness or Invalid's Benefit.

Table 3.10 Health-related income support, by family/household type, 1981–2006

Family/household type	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	1.2	2.0	2.2	3.8	3.5	3.4	183.3
Couple with only independent children	1.5	1.9	2.7	3.4	4.5	5.1	240.0
One-parent family with dependent children	1.3	3.2	2.3	5.0	4.7	6.0	361.5
One-parent family with only independent children	1.7	3.2	4.6	6.6	8.2	11.1	552.9
Couple without children	1.9	2.6	3.2	4.1	4.5	4.3	126.3
One-person household	4.1	6.0	8.2	10.7	11.1	13.9	239.0

All family and household types experienced an increase over the period 1981 to 2006 in the proportion whereby one or more adults were receiving a health-related benefit. However, although these increases appear large when the percentage changes are viewed, in fact, the increases are from very low starting figures. The largest increase over the 25-year period was for one-parent families with only independent children.

4 Changes in family wellbeing for families with at least one Māori parent

This section presents an analysis of changes in wellbeing for families containing at least one parent of Māori ethnicity. The decision to use the ethnicity of a parent as a marker of the ethnicity of a family is explained in appendix C. The choice of a parent's ethnicity also reduced the number of family types for which the analysis could be conducted, as only family types where there are one or more people in a parent role are included.

As in the previous section, each table in section 4 contains a summary measure representing the percentage change between 1981 and 2006 for each family type. The time points are chosen simply because these are the start and end points of the data we have available. When attempting to understand the full extent of the changes that have occurred for each indicator, it is important to track the trend line of change within the period of the study, as well as the difference between the start and end points.

4.1 Income domain

4.1.1 Median equivalised income

Indicator definition: Median real, gross, equivalised family income for families with at least one Māori parent.

We define median real, gross, equivalised income as median gross income adjusted for family composition using the Revised Jensen Scale (Jensen, 1988) and expressed in 1999 dollars using the March quarter CPI (base 1999) for the relevant year (Statistics New Zealand, 2005).

Table 4.1 Jensen median real (1999 dollars), gross, equivalised family income, by family type, 1981–2006, for families with at least one Māori parent

Family type	1981	1986	1991	1996	2001	2006	Percentage change 1981–2006
Couple with dependent children	\$28,846	\$27,798	\$27,441	\$29,539	\$32,322	\$35,622	23.5
Couple with only independent children	\$49,493	\$48,112	\$41,240	\$46,848	\$49,298	\$52,502	6.1
One-parent family with dependent children	\$11,471	\$15,378	\$14,171	\$13,406	\$13,309	\$15,950	39.0
One-parent family with only independent children	\$30,769	\$30,569	\$24,457	\$26,861	\$28,748	\$33,377	8.5

The overall trend for changes in median equivalised income for 'Māori families' was much the same as for the whole population: a decline from 1981 through to the early to mid 1990s, followed by an increase through 1996 to the 2006 census. One-parent families with dependent children had the lowest overall level of income throughout the entire period but experienced the biggest increase, of 39 percent.

With the exception of one-parent families with dependent children, the other three family types all experienced decreases in median equivalised income between 1981 and 1991, after which their income rose through to 2006.

4.1.2 Low income

Indicator definition: The proportion of families with at least one Māori parent, whose equivalised gross income is less than 60 percent of the median equivalised gross income for all families and households.

Table 4.2 Low income, by family type, 1981–2006, for families with at least one Māori parent

	1981	1986	1991	1996	2001	2006	Change 1981–2006
Family type	Percent						
Couple with dependent children	32.0	27.8	25.3	24.0	22.9	24.5	-23.4
Couple with only independent children	13.8	7.5	6.5	4.7	7.6	8.6	-37.7
One-parent family with dependent children	78.7	74.3	80.3	77.3	78.9	77.9	-1.0
One-parent family with only independent children	35.1	21.9	23.5	25.1	30.2	29.9	-14.8

The four family types used in the analysis all experienced a decrease between 1981 and 2006 in the likelihood of having an income below 60 percent of the median. However, for one-parent families with dependent children this decrease was very small. The biggest decrease was experienced by couples with only independent children. Both couple family types experienced a slight increase in the likelihood of having an income below 60 percent of the median between 2001 and 2006, after recording declines between 1981 and 2001.

4.2 Work domain

4.2.1 Employment status

Indicator definition: The proportion of families with no parent in formal paid employment.

Table 4.3 Lack of paid employment, by family type, 1981–2006, for families with at least one Māori parent

Family type	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	8.3	8.1	21.8	14.8	11.7	9.9	19.3
Couple with only independent children	18.4	16.1	24.6	19.3	16.3	13.5	-26.6
One-parent family with dependent children	73.9	77.5	82.8	72.8	63.1	59.0	-20.2
One-parent family with only independent children	65.6	64.0	68.4	60.9	53.5	50.3	-23.3

Three out of the four family types in this analysis, with the only exception being couples with dependent children, experienced a decrease between 1981 and 2006 in the likelihood of having no parent in paid employment. All family types experienced an increase in the proportion having no parent in formal paid employment between 1981 and 1991, then decreases in this proportion between 1991 and 2006. However, for couples with dependent children, the proportion in 2006 where no parent was in paid work was higher than in 1981.

4.2.2 Hours worked

Indicator definition: The proportion of families with at least one Māori parent and at least one parent who works more than 48 hours per week.

Table 4.4 Long hours worked, by family type, 1981–2006, for families with at least one Māori parent

Family type	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	24.1	30.4	27.2	35.7	36.5	35.2	46.1
Couple with only independent children	23.0	26.7	25.0	33.3	35.4	34.4	49.6
One-parent family with dependent children	2.3	2.8	2.3	3.5	4.6	5.4	126.1
One-parent family with only independent children	3.7	5.0	6.0	7.3	8.3	9.3	151.4

Each of the four family types identified in table 4.4 experienced an increase in the likelihood of having at least one parent working 48 hours or more per week between 1981 and 2006. The largest increases were recorded for one-parent families with only independent children and one-parent families with dependent children. However, it must be remembered that these increases occurred from low initial starting points in both cases.

4.3 Education domain

4.3.1 Any educational attainment

Indicator definition: The proportion of families with at least one Māori parent where no parent has any educational qualification.

Table 4.5 Lack of any educational qualification, by family type, 1981–2006, for families with at least one Māori parent

Family type	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	55.8	43.3	36.3	36.2	20.3	20.7	-62.9
Couple with only independent children	69.1	54.2	48.6	51.7	34.1	33.9	-51.0
One-parent family with dependent children	82.7	73.5	69.3	69.3	49.1	48.1	-41.2
One-parent family with only independent children	90.3	78.9	75.4	78.0	60.9	60.3	-33.2

Between 1981 and 2006 all family types had significant decreases in the proportion where no parent held any educational qualification. The decreases were largest for couples with dependent children and smallest for one-parent families with only independent children.

4.3.2 Post-secondary educational attainment

Indicator definition: The proportion of families with at least one Māori parent where no parent has any post-secondary educational qualification.

Table 4.6 Lack of post-secondary educational attainment, by family type, 1981–2006, for families with at least one Māori parent

Family type	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	77.3	62.6	52.0	55.9	47.7	50.2	-35.1
Couple with only independent children	79.2	65.1	57.8	61.4	53.7	56.3	-28.9
One-parent family with dependent children	95.4	89.9	81.8	84.7	74.7	78.7	-17.5
One-parent family with only independent children	94.6	88.5	82.7	84.7	78.7	80.3	-15.1

All four of the family types in this analysis recorded decreases between 1981 and 2006 in the proportion where at least one parent had no post-secondary school qualification. Couples with dependent or with only independent children experienced the largest decreases over the 25 years between 1981 and 2006.

4.4 Housing domain

4.4.1 Home ownership

Indicator definition: The proportion of families with at least one Māori parent that do not live in owner-occupied dwellings.

Table 4.7 Lack of home ownership, by family type, 1981–2006, for families with at least one Māori parent

	1981	1986	1991	1996	2001	2006	Change 1981–2006
Family type	Percent						
Couple with dependent children	46.0	40.9	32.6	37.3	41.8	53.8	17.0
Couple with only independent children	22.2	22.0	18.3	19.1	22.1	35.0	57.7
One-parent family with dependent children	59.2	59.3	57.9	66.1	71.4	78.4	32.4
One-parent family with only independent children	37.7	39.4	39.7	41.3	47.4	58.1	54.1

Between 1981 and 2006 the likelihood of living in an owner-occupied dwelling declined for all families with at least one Māori parent. The largest declines were recorded for couples with independent children only, followed by one-parent families with only independent children. Between 1981 and 1991 both categories of couples with children experienced an increase in the likelihood they would live in an owner-occupied dwelling, but this trend reversed between 1991 and 2006.

4.4.2 Rental affordability

Indicator definition: The proportion of families with at least one Māori parent, living in rented dwellings, whose weekly rent is greater than 25 percent of their weekly gross equivalised household income.

Table 4.8 Low rental affordability, by family type, 1981–2006, for families with at least one Māori parent

Family type in rented dwellings	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	30.9	29.0	49.8	62.6	58.9	52.7	70.6
Couple with only independent children	11.6	12.2	23.7	35.8	30.3	27.1	133.6
One-parent family with dependent children	54.4	50.8	75.6	87.6	80.0	74.8	37.5
One-parent family with only independent children	18.0	17.6	26.9	55.8	38.8	32.7	81.7

For each of the four family types rental affordability decreased between 1981 and 2006. The largest decreases in rental affordability occurred between 1986 and 1996 for all family types. For couples with only independent children this more than doubled over the 25 years. For all family types rental affordability improved between 1996 and 2006.

4.4.3 Crowding

Indicator definition: The proportion of families with at least one Māori parent, living in dwellings that require at least one additional bedroom to meet the sleeping needs of the household.

Table 4.9 Crowding, by family type, 1981–2006, for families with at least one Māori parent

Family type	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	35.3	35.4	30.0	24.8	23.2	29.6	-16.2
Couple with only independent children	11.9	19.8	15.9	13.3	11.6	16.5	38.7
One-parent family with dependent children	52.5	54.1	44.6	43.0	39.1	46.7	-11.0
One-parent family with only independent children	24.7	33.8	29.6	26.6	22.1	28.7	16.2

The extent of household crowding declined for three out of the four Māori family types between 1981 and 2006, with the exception of couples with only independent children. For all family types the incidence of crowding increased between 2001 and 2006.

4.5 Health domain

4.5.1 Health-related benefits

Indicator definition: The proportion of families with at least one Māori parent and at least one parent receiving either a Sickness or Invalid's Benefit.

Table 4.10 Health-related benefits, by family type, 1981–2006, for families with at least one Māori parent

Family type	1981	1986	1991	1996	2001	2006	Change 1981–2006
	Percent						
Couple with dependent children	2.5	4.2	4.6	7.2	6.6	8.0	220.0
Couple with only independent children	3.0	4.8	6.9	7.6	8.7	11.3	276.7
One-parent family with dependent children	2.0	4.3	2.7	6.1	5.9	7.9	295.0
One-parent family with only independent children	3.9	5.6	7.6	10.4	13.7	17.5	348.7

Between 1981 and 2006 each family type recorded an increase in the likelihood that at least one parent was receiving a health-related benefit. Although the percentage increases were large, the overall percentages remain low, with the exception of one-parent families with independent children, where 17.5 percent were in receipt of a health-related benefit by 2006.

5 Discussion

This section assesses the results presented in the two previous sections against other sources of data. It also relates the changes occurring in each indicator to relevant social, political and economic events.

5.1 Summary of main findings: interpretation and implications

The following subsections discuss the results for each wellbeing indicator, for each of the different family groupings detailed in sections 3 and 4. Where appropriate, the results are located in the context of known events that are likely to have relevance to the particular indicator. In addition, where possible and relevant, the discussion is supplemented with data from other sources.

5.1.1 Income domain

A combination of events and policy choices made by different governments between 1981 and 2006 have affected the level of family and household income over those 25 years. These include the economic reforms of the 1980s and 1990s, and the labour market and welfare reforms of the 1990s. The restructuring of the economy, particularly in the 1980s, shifted many workers from relatively well-paid manufacturing work to employment in lower paying service sector work or unemployment. The tax cuts of the mid-1980s reduced the level of progressivity in the tax scale and served to increase incomes for the higher paid. In the early 1980s real wage rates declined, partially as a consequence of the wage (and price) freeze put in place by the National Government between 1982 and 1984, but these then rose for a short period as wage rounds in 1984 and 1985 produced settlements of around 6.0–7.5 percent and 15 percent or more, respectively (Dalziel & Lattimore, 2004, 105). Over the remainder of the 1980s and early 1990s, real wage rates remained relatively stable overall before beginning to recover in the mid to late 1990s (Dalziel & Lattimore, 2004).

The late 1980s and early 1990s were marked by high and rising unemployment, which peaked for most groups in 1991, when it was over 11 percent overall but for Māori was just over 21 percent. Unemployment declined through the mid to late 1990s, and by 2001 the unemployment rate was 5.7 percent, although for Māori it was still 13 percent. Between 2001 and 2006 unemployment rates declined markedly for all ethnic groups, with the overall unemployment rate being 4.3 percent in March 2006; for Māori it was 8.7 percent and for Pacific peoples 7.6 percent.

In 1991 many welfare benefits were reduced, by up to 25 percent in some cases, reducing the income of many beneficiaries. In addition, from the late 1980s onwards the value of benefit payments in relation to wages declined, because benefit rates were only indexed to increases in the rate of inflation. In addition, rates of inflation were high for the middle part of the 25 years under examination, and this tended to reduce the real level of wages and other forms of income.

Median equivalised income

The majority of the family types used in this analysis – whether for all families or for those with at least one Māori parent – saw increases in the level of real median equivalised income over the period 1981–2006. The only exceptions to this were one-parent families with only independent children and one-person households, both

in the all families section of the analysis. These two family/household types experienced declines in their median income of 7.1 and 1.5 percent respectively over this period. The largest increases over the 25 years were enjoyed by one-parent families with dependent children in both sets of analyses. However, even with these increases, the level of median equivalised income in 2006 for these two groups in both analyses was lower than that for all other family types.

The difference in median equivalised incomes between those families with at least one Māori parent and 'all families' is clear in the data. Regardless of family type, those with at least one Māori parent had lower levels of median equivalised income for every census year 1981–2006, with the only exception being one-parent families with dependent children. In this case, those with at least one Māori parent had a slightly higher median income (\$13,406 to \$13,411) in 1996 than their counterparts in the all families analysis.⁹

Other studies in New Zealand analysing changes in median equivalised income include those by Perry (2007), Mowbray (1993; 2001), and Krishnan and Jensen (2005). These studies differ from FWWP in that they all use income data from Statistics New Zealand's Household Expenditure Survey (HES). Mowbray, and Krishnan and Jensen, working on behalf of the Ministry of Social Development (formerly the Ministry of Social Policy), have studied changes over the period 1981–2001 in three separate reports. They have calculated median equivalised disposable income for a range of family and household types. Mowbray's 2001 research showed that pre-tax median, real median household income fell from \$46,676 in 1982 to \$43,732 in 1986, and then to \$36,690 in 1991. It rose slightly to \$37,308 in 1996 and then again to \$38,888 in 1998, the last year for which data were available.

In a more recent study, Perry (2007) examined changes in household incomes between 1981 and 2004. Perry found that median household income before housing costs was \$21,700 in 1982, increasing slightly to \$23,000 in 2004 (in 2004 dollars). This represents an increase of 6 percent over the period.

Low income

In the analysis of all families, four out of the seven family and household types experienced an increase in the proportion of low-income families. However, in the Māori families analysis all family types recorded a decrease in the proportion defined as low income over the period 1981 to 2006. Nevertheless, all family types with at least one Māori parent were more likely than their counterparts in the "all families" analysis to have incomes less than 60 percent of the median equivalised gross family income.

Other analysis examining the proportion of the population experiencing low income has been conducted by the Ministry of Social Development (MSD) and cited in its annual social report (Ministry of Social Development, 2006a). The MSD uses income data from the HES and its measure takes account of incomes, housing costs, inflation and family size, before being calculated as the proportion of the population in economic family units with equivalised disposable income, net of housing cost, below three different thresholds (low, medium and high). The thresholds used by the MSD are 40 percent, 50 percent and 60 percent of the 1998 median equivalised net-of-housing-cost family incomes.

Between 1987/88 and 2000/01 the proportion of the total population defined as having low income nearly doubled, moving from 12.3 percent to 21.8 percent, before declining slightly to 19.3 percent in 2003/04. One-parent families experienced the

⁹ Note that the all families analysis contains the data used in the Māori family analysis, and if these data were removed the gaps would be larger still. A more detailed analysis by separate ethnic groups is being conducted.

greatest increase in the likelihood of having low income, from 13.9 percent in 1987/88 to 55.1 percent in 2000/01, before declining to 39.8 percent in 2003/04.

5.1.2 Education domain

Any educational attainment and post-secondary school educational attainment

All family types in both analyses, and for both of these indicators, recorded declines in the proportions of families where no parent had a secondary school qualification, over the period 1981–2006. This points to an overall increase in the level of qualifications held by the population, a trend which is mirrored in research conducted on behalf of the Ministry of Education. Newell and Perry (2006) found that between 1981 and 2001 the proportion of New Zealand residents who were 15 years of age or older and who had no educational qualification declined from just over 55 percent to just under 27 percent. They also found that the proportion with a university qualification increased from just under 4 percent in 1981 to nearly 12 percent in 2001 (Newell and Perry, 2006).

5.1.3 Work domain

Over the period under examination, the participation rates of women in the paid labour force increased considerably. The overall female participation rate was 54.8 percent in March 1986, and by March 2006 this had risen to 62 percent (Statistics New Zealand, 2008).

Families/households without paid work

For both sets of analyses – that is, all families and families with at least one Māori parent – both categories of one-parent families experienced higher levels of employment over the 25 years under examination, while for couples with dependent children in both analyses there was a slight deterioration in employment.

The Household Labour Force Survey (HLFS), conducted by Statistics New Zealand, is the official measure of unemployment in New Zealand. Overall unemployment, as measured in the HLFS, rose from 4 percent in December 1986 to a peak of 10.7 percent in December 1991, before declining to 5.7 percent in December 2001 and then to 3.6 percent in June 2006. For Māori, unemployment was 11.7 percent in March 1986, rising to a peak of 27.4 percent in March 1992, before decreasing to 12 percent by 2001 and 8.2 percent in June 2006 (Statistics New Zealand, 2008).

Data from the MSD's 2006 Statistical Report confirms this trend. The number of people receiving Unemployment Benefits increased rapidly during the late 1980s, from just fewer than 35,000 in 1981 to just over 158,000 in 1991, before declining slowly to just over 141,000 by June 2001, and then further decreasing to approximately 57,000 by June 2006 (Ministry of Social Development, 2006b).

Long hours worked

In both sets of analyses – all families and families with at least one Māori parent – all family types experienced an increase in the likelihood of having at least one adult/parent working more than 48 hours per week.

5.1.4 Housing domain

Home ownership

The proportion of families living in owner-occupied dwellings declined for most family types for both analyses, with the exception of one-person households. In this group

the proportion not living in owner-occupied dwellings declined from 54.4 percent in 1981 to 50.5 percent in 2006.

Data from Statistics New Zealand confirm the overall trend indicated in the data obtained from the FWWP analysis. The percentage of all households living in owner-occupied dwellings declined from 73.8 percent in 1991 to 70.7 percent in 1996, dropping further to 67.8 percent in 2001 and then to under 60 percent in 2006.¹⁰

Rental affordability

The National Government that came to power in 1991 introduced market-based rental payments in 1993 for those living in public housing. Instead of providing support by charging rents related to household income, housing assistance was delivered to those requiring it via a benefit called the Accommodation Supplement. This initiative disproportionately affected the level of rent paid by low-income households, many of whom lived in state-provided housing.

For all family types in both sets of analyses there was an increasing likelihood of paying more than 25 percent of weekly equivalised household income in rent over the period 1981–2006. For some types the likelihood more than tripled over this time. The family types experiencing conditions of low rental affordability – that is, paying more than 25 percent of their equivalised income in rent – were the same for both analyses: one-parent families with dependent children and couples with dependent children. The largest decrease in rental affordability occurred in the period up to 1996; since then most family types have experienced some improvement in rental affordability, a trend matched in the MSD data reported below.

The MSD's Social Report contains information on housing affordability. It uses a measure that assesses the proportion of people within households spending more than 30 percent of their income on housing, which is similar to the measure contained in this report. The data used by the MSD were derived from the HES. The data in the 2006 Social Report show that in 1987/88 10.6 percent of the total population lived in households where the ratio of housing costs to income was greater than 30 percent. This figure rose to 20.6 percent in 1992/93 and to 24.9 percent in 1997/98, before dropping slightly in 2000/01 to 23.6 percent.

This analysis also showed that households with any European adult experienced lower housing cost outgoings-to-income ratios than those with a Māori, Pacific or other ethnicity adult present.

Crowding

Couples with only independent children in both sets of analyses experienced an increase in the likelihood of living in crowded dwellings, along with one-parent families with only independent children in the all families analysis. The families most likely to be living in crowded housing over the period 1981–2006 were one-parent families with at least one Māori parent and with dependent children. In 1981 52.5 percent of these families lived in crowded conditions, declining slightly to 46.7 percent in 2006. Families with at least one Māori parent were more likely than their counterparts in the all families analysis over all family types and time periods to live in housing defined as crowded.

The MSD's 2007 Social Report contains a measure of household crowding derived from census data, which shows that in 2006 around 10 percent of the resident

¹⁰ Source: Statistics New Zealand, <http://www.stats.govt.nz/census.htm>.

population lived in crowded dwellings, a figure similar to the level recorded in 2001 (Ministry of Social Development, 2007a, 64).

5.1.5 Health-related benefits

The overall proportion of families/households where at least one adult was receiving a Sickness or Invalid's Benefit was very low in 1981 for all family types in both sets of analyses. Over the 25 years of study the proportions rose but, with the exception of the few family types identified below, remained relatively low. The family types most likely to have at least one adult receiving a health-related benefit were, for both analyses, one-parent families and couples with only independent children.

Data obtained from MSD's annual Statistical Report confirm the above overall trend and indicate that the number of beneficiaries in receipt of health-related benefits increased over the period 1981–2006. The number receiving Sickness Benefits grew steadily from about 7,000 in 1981 to just over 47,500 in 2006. The number receiving an Invalid's Benefit rose from under 17,000 in 1981 to just over 77,000 in June 2006 (Ministry of Social Development, 2007b).

5.2 Strengths and limitations

The main strength of this study is the availability of data from the census, which, in principle, provides coverage of the whole population. This facilitates the analysis of changes in family wellbeing for a wide range of family types and for different ethnic groups. This type of analysis is not easily conducted with sample surveys such as the HES and HLFS because of their relatively limited sample sizes.

The limitations of the study are linked to the range of information collected in the census. First, much information that could be useful for constructing wellbeing indicators is not available through the census. Second, although this research uses repeated cross-sectional information to create time series data on different groups of people, it must be recognised that this does not create a truly longitudinal study. For example, families and households may enter and exit the census by migration, and the composition of existing units will change (with altered domestic arrangements). Thus it must be borne in mind that the families and households featuring in the analysis are not necessarily the same units, or composed of the same individuals, from one census to the next.

For further information on the strengths and limitations of using census data to measure wellbeing, see Milligan et al., 2006.

5.3 Future research directions

There are a number of options for further research based on the use of the FWWP indicators. First, the possibility of extending the time series backwards, via the inclusion of data from the 1976 Census, would allow for an even longer time series to be constructed, thus enhancing our understanding of the dynamics of family wellbeing over time.

Second, the analysis could be extended to examine variability in wellbeing between different ethnic groups. The initial analysis conducted above indicates that families with at least one Māori parent fared differently from the overall family cohort on every indicator. This suggests that an examination of variation both across and within ethnic groups would be useful.

Third, differences in wellbeing between families who live alone and families who live with other families could be examined. In their census-based study of demographic

transitions, Jackson and Pool (1994) noted that family type does not completely capture the living situation of families. In particular, they draw a distinction between families living alone and those living with other people. It was suggested that families living with other people potentially have access to a greater level of material and emotional support, which may be especially relevant to one-parent families. Since such differences could lead to differences in wellbeing, one particular family type – one-parent families with dependent children – was further classified according to whether the family occupied a dwelling of their own or shared it with others.

Fourth, an overall index of family wellbeing could be constructed. This would allow more straightforward comparison of changes in wellbeing for different family and household types.

Finally, spatial analysis could be conducted to determine whether families living in different areas (that is, rural/urban, North and South Island) fared differently in terms of wellbeing over the two decades under examination.

5.4 Conclusion

This report has examined changes in family wellbeing for a range of family types over the period 1981–2006. Given the absence of an overall index of wellbeing for each family type, it is difficult to define with precision the overall changes in family wellbeing over this period. However, the evidence suggests that, overall, families experienced more negative impacts on their wellbeing than they did positive. There are, of course, variations in this experience – depending on which family type is examined, which particular indicator or indicators are the focus, and whether or not the family under examination has at least one Māori parent.

If income is taken as the best measure of levels of wellbeing, then for both sets of analyses almost all family types were better off over the 25 years in question. Furthermore, all families in both sets of analyses improved their level of educational qualification. However, they also worked longer hours and experienced lower levels of home ownership and rental affordability.

Although the usefulness of this analysis is somewhat limited because of the range of indicators available, it does provide an unrivalled opportunity to examine changes in family wellbeing for small population groups over the 25-year period. In addition, by including a data point from 1981, it provides information about changes in New Zealand's early reform period that is not available from other sample surveys. For example, the Household Labour Force Survey, which supplies the data for the official measure of unemployment, was not established until 1986.

Given the current government's focus on family wellbeing, this study provides valuable information on the historical experience and current circumstances of a range of family types. This is important when policy measures to improve family wellbeing are being considered.

Appendix A Working with data from the census

Access to the data used in this study was provided by Statistics New Zealand in a secure environment, the Data Laboratory. This is designed to give effect to the confidentiality provisions of the Statistics Act 1975. Personal identification information supplied on the original census forms, such as name and address, is not carried over to the computer records held by Statistics New Zealand, and these details are therefore not available to any data users. Further omissions eliminate the possibility of linking individual-level records in the Data Laboratory datasets back to respondents.

In addition, all Data Laboratory output is subject to confidentiality rules set by the department to further protect respondent confidentiality. In particular, all frequencies in this report are randomly rounded to one of the nearest multiples of 3 (for example, a count of 5 could become 3 or 6) to further guard confidentiality (Statistics New Zealand, 2001a). All percentages are calculated based on rounded counts. Derived statistics, such as medians, are not rounded, however. Given that the numbers presented in this report are typically very large, rounding is not expected to have any discernible impact on the conclusions drawn.

Appendix B Subject population and units of analysis

The subject population for all tables and analyses is the census-defined “usually resident population”. This population is “all people counted in New Zealand on census night excluding overseas visitors and New Zealand residents temporarily overseas” (Statistics New Zealand, 2001b). From this group, only those individuals usually resident in private dwellings were included in the analyses. This is because family and household units cannot be identified among people resident in non-private dwellings. This means that people usually residing in communal or non-private establishments such as retirement homes, public hospitals or convalescent homes, religious, educational or penal institutions, or defence establishments are excluded from the analysis.

In the construction of the wellbeing indicators, families/households were excluded from the calculations where relevant information on some members was missing. For example, if one parent had missing education information, even if the other parent was recorded as having no educational qualification, that family was not included in the ‘Any educational qualification’ indicator.

B.1 Standard census enumeration units: households, families and individuals

A detailed overview of how families and households are enumerated by the census, and the data available for each, is given in Milligan et al. (2006: 39–42). Further information can be found in Statistics New Zealand’s classifications and standards for dwellings, families and households (Statistics New Zealand, 1999a, 1999b, 1999c) and the census definitions and questionnaires (Statistics New Zealand, 2001b). Importantly, families and households as identified in the census have specific definitions that may differ from their intuitive meanings. In particular, the range of family structures that can be identified is limited by the fact that the census is a dwelling-based survey.¹¹ That is, the highest level at which individuals are grouped is by common dwelling. As such, interpersonal relationships (familial or otherwise) among individuals living in the same dwelling are discernible, but those among individuals living in different dwellings are not.

The model for the census definition of family is the ‘nuclear’ unit, consisting solely of parents and children or partnered couples. These definitions are primarily based on social arrangements: ‘parents’ need not be the biological parents of their ‘children’ and couples need not be legally married. For example, two children who are parented by, and live only with, their grandmother in the same dwelling are classified as a family nucleus. Any group of children with a common parent or guardian (‘person in a parent role’) living in the same dwelling is considered part of the same family nucleus, provided they do not have any children of their own living in the same dwelling, as is a couple living in a *de facto* relationship.¹² In contrast, individuals living without children or partners in the same dwelling are not classified as belonging to a family nucleus, and neither are groups of siblings living together or groups of unrelated people living together.

Census households consist of all those people usually living in the same dwelling, regardless of their interrelationships.

¹¹ In the census, a dwelling is ‘any building or structure, or part thereof, that is used (or intended to be used) for the purpose of human habitation’ (Statistics New Zealand, 2001b, p. 23).

¹² Same-sex couples are not identifiable in census data prior to 1996.

Appendix C: Families/households

Some key concepts associated with family and household type are described below, followed by information on how 'family ethnicity' was measured for the analysis.

C.1 Family structure

In this report the primary focus is the census family unit, and indicators were compiled for these units and cross-classified by family type and child dependency status. This classification consists of five categories: couple without children, couple with dependent children, couple with only independent children, one-parent family with dependent children, and one-parent family with only independent children. In addition to these family groupings, one-person households and non-family households were included for comparison (Milligan et al., 2006).

C.2 Retirement status

During initial investigations of indicator results, a clear distinction arose between couples and single people of retirement age and those who were younger. Therefore, retirement status was added to the family/household classification scheme. The retirement status classification is defined by age and receipt of New Zealand Superannuation. It is only defined for couple-only families and one-person households. The correspondence between the retirement status categories and census variables is shown in appendix table C.1. A couple-only family was deemed 'retired' if both partners were aged 65 years or over and/or both partners received New Zealand Superannuation, or if one partner was aged 65 years or over and the other received New Zealand Superannuation. Similarly, one-person households were deemed 'retired' if the householder was aged 65 years or over or received New Zealand Superannuation.

Compulsory retirement ages were made unlawful in New Zealand in 1999 (Statistics New Zealand, 2004a) and, to our knowledge, no official statistical definition of retirement exists. The definition used here was chosen as a simple and easily applied operational classification; it is not intended to be definitive. Indeed, overseas researchers have noted that a robust definition of retirement is difficult to specify (for example, Bowlby, 2006). Statistics Canada has an official definition that sets 55 as the minimum retirement age and includes labour-force and income source characteristics to refine the classification (Bowlby, 2007). In New Zealand, as in Canada, however, the age at which people cease work or change their working patterns varies among people and over time (Gower, 1997; Statistics New Zealand, 2004a).

Appendix Table C.1 Retirement status classification, by family/household type, age and receipt of NZ Superannuation

Retirement status	Family/household type	Age and receipt of New Zealand Superannuation
Retired	Couple only (family)	Both partners are aged 65 years or over and/or receive New Zealand Superannuation
	One-person household	Aged 65 years or over or receives New Zealand Superannuation
Non-retired	Couple only (family)	Only one partner is aged 65 years or over and/or in receipt of New Zealand Superannuation, or neither is
	One-person household	Aged less than 65 years and does not receive New Zealand Superannuation

C.3 Measuring family ethnicity

One aim of this report is to investigate changes in wellbeing for what we have labelled 'Māori families'. However, the issue of how to define what constitutes a Māori family is not clear-cut, and although the term 'Māori family' is used in New Zealand research, Callister et al. (2007) note that seldom is there discussion of how the term is defined. Is a Māori family one where one of the parents identifies as Māori, or only where both parents identify as Māori, or is it one where a majority of the family members identify as Māori, or one where any member of the family identifies as Māori? Given that ethnicity is identified as a personal trait by Statistics New Zealand (2004b), can we even meaningfully identify a Māori family? These questions have provoked considerable discussion among academics and analysts who seek to understand the impact of ethnicity in social policy (Statistics New Zealand, 2007a).

In addition to the conceptual and definitional issues associated with identifying family ethnicity, ethnicity itself is an area of considerable complexity and debate for social research. As we have noted, in practical terms data on ethnicity is collected as an attribute of an individual, and therefore ascribing it to a family is problematic. In addition, the increasing levels of ethnic intermarriage and increasing numbers of people with multiple ethnic identities make it difficult for researchers to use and analyse ethnicity data. This report does not intend to revisit the debates around these issues; Statistics New Zealand, as part of its recent review of the measurement of ethnicity, has published on its website a series of informative papers that discuss these issues and provides examples for researchers on how to gather, use and interpret ethnicity data.¹³

The method we chose for this research was to identify a family as Māori where at least one of the parents identified as Māori. This approach looks at families in which there is a Māori member, rather than at a 'Māori' family; that is, ethnic identification remains at the individual level and we look at the family environment of that individual.

Our justification for this is that it is the status of the parents, as judged by employment, income level, educational attainment and so on, that plays the major role in determining the overall level of wellbeing in most families. There are some situations where this may not hold, such as where parents are unemployed or have no educational qualifications but have independent children in full-time employment,

¹³ See <http://www.stats.govt.nz/analytical-reports/review-measurement-ethnicity/default.htm>.

but in most situations it is the parents' status that is most important for determining the overall level of family wellbeing.

C.4 Revised Jensen Scale

Median gross household income is not a suitable indicator of the relative standard of living of a household compared with other households, because it does not take into account household composition. For example, a one-adult household with a median annual household income of \$45,000 is likely to have access to a higher standard of living than a two-adult, three-child household with the same income. In order to compare income across a range of household types, a transformation – called an equivalence scale – is used to equate gross income, taking into account important differences in household composition.

The equivalence scale used for this study is the Revised Jensen Scale (RJS), which is a New Zealand scale derived by John Jensen of the Ministry of Social Development. Its reference point is a two-adult, couple-only household, which is given a value of 1. The equivalised income of all other household types is expressed relative to that of the reference two-adult household, with adjustments made for the number of adults and the age and number of children. The scale contains adjustments that take into account the fact that children typically need less income than adults in order to maintain a comparable standard of living. Gross equivalised household income is calculated by dividing annual gross household income by the appropriate value for the household on the revised Jensen Scale.

For example, a two-adult household with an annual income of \$40,000 would have an annual income equivalised with the Revised Jensen Scale of \$40,000, since its rating on the Jensen scale is 1. However, if an eight-year-old child was added to the household, its Jensen Scale Rating would change to 1.19, and therefore its equivalised income would be $\$40,000/1.19 = \$33,613$.

C.5 Crowding index

The crowding index is calculated using the equivalised crowding index, which is used by Statistics New Zealand and takes into account the number of bedrooms in a dwelling and the household composition. The formula weights each individual in a couple relationship as one half, as well as children aged under 10 years. All other members of the household are given a weight of one.

This gives an equivalised number of people per bedroom.

The formula is:

$$\text{equivalised crowding index} = [(1/2 \text{ number of children under 10 years}) + (\text{number of couples}) + (\text{all other people aged 10 years and over})] / \text{number of bedrooms.}$$

Any value in excess of 1.0 represents a measure of crowding (Statistics New Zealand, 2007b).

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