

USING CENSUS DATA TO EXAMINE CHANGES IN WELLBEING FOR SAMOAN, COOK ISLAND, TONGAN AND NIUEAN HOUSEHOLDS

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Abstract

In recent years a number of publications have examined changes in wellbeing for the overall population in New Zealand. These reports have each made a contribution to understanding the impacts on and changes within different population groups in the past 20 or so years. However, primarily due to data constraints, relatively little analysis of the impact of these changes has been done on specific sub-groups of the population. This paper demonstrates how Census data can be used to examine changes in wellbeing for population sub-groups. It uses indicators derived from Census data to describe changes in wellbeing for Samoan, Cook Island, Tongan and Niuean households of different types over the period 1981--2006.

INTRODUCTION

In recent years a number of publications have examined changes in wellbeing for the overall population in New Zealand (Krishnan and Jensen 2005, Ministry of Social Development 2007, 2008, Cotterell et al. 2008, Quality of Life Team 2003, 2007, Perry 2008, Podder and Chatterjee 1998). These reports have each made a contribution to our understanding of various social, cultural and economic impacts on different groups in the population as a result of the changes that have occurred in the past 20 or so years.

However, primarily due to data constraints, relatively little analysis of the impact of these changes has been done on specific sub-groups of the population. This paper demonstrates how Census data can be used to examine changes in wellbeing for population sub-groups. It uses indicators derived from the New Zealand Census of Population and Dwellings to describe changes in wellbeing for Samoan, Cook Island, Tongan and Niuean households over the period 1981--2006.

The paper begins by discussing the issues associated with ascribing ethnicity to a household, before briefly detailing the use of Census data and the construction of wellbeing indicators. The substantive part of the paper then discusses the changes in wellbeing for Samoan, Cook Island, Tongan and Niuean households of different types, in the domains of income, employment and housing, over the 1981--2006 period. The paper concludes with a discussion of the results.

The intent of the paper is to demonstrate that differences do exist in the levels of wellbeing experienced by Pacific households of different ethnicities. The paper also provides a

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framework for measuring the wellbeing of sub-groups of the population that researchers can utilise for future research, and establishes a baseline of information from which researchers can draw as they conduct more detailed research. We hope the information presented here provokes further interest and examination by subject matter experts on different aspects of the information supplied.

ASCRIBING ETHNICITY TO A HOUSEHOLD

One of the primary aims of this paper is to investigate changes in wellbeing for what we have labelled “Samoan”, “Cook Island”, “Tongan” and “Niuean” households. There are two preliminary issues associated with such a task. The first task involves the development of a method for ascribing a “general” Pacific ethnicity to a household. The second task involves ascribing a particular/specific Pacific ethnicity to a particular household. These issues are discussed in turn.

The issue of how to identify family and, by association, household ethnicity has provoked considerable discussion among academics and analysts in New Zealand (for example, see Rochford 1996, Callister 2006, Callister et al. 2007, 2008). Can a Pacific family be “categorised” as one where one of the adults identifies as Pacific, or only where both adults identify as Pacific; or is it one where a majority of the family members identify as Pacific, or one where any one member of the family identifies as Pacific? Furthermore, given that ethnicity is identified as a personal trait (Statistics New Zealand 2004), can we even meaningfully identify the ethnicity of a household?

In addition to the conceptual and definitional/categorical issues associated with identifying family ethnicity, ethnicity itself is an area of considerable complexity and debate within social research. Data on ethnicity are collected as attributes of an individual, and therefore ascribing an ethnicity to a family is theoretically 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 paper 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.²

The method we employ to define a Pacific household is to require that at least one of the adults living within the household identifies as Pacific. This approach consequently looks at households in which there is a member of Pacific ethnicity rather than at “Pacific” households. In other words, ethnic identification remains at the individual level and we look at the family and household environments of such individuals.

The issue of how to define what constitutes a “Pacific” household of a particular ethnicity is similarly far from clear cut. In defining whether a household was of Samoan, Cook Island, Tongan or Niuean ethnicity, we employed a similar method to that for defining a Pacific household. That is, we define a household as Tongan, for example, where at least one of the adults identifies as Tongan, and so on for the Samoan, Cook Island and Niuean households.

² See <http://www.stats.govt.nz/analytical-reports/review-measurement-ethnicity/default.htm>

This approach does mean that there is overlap among the categories through intermarriage. For instance a household with one Samoan adult and one Tongan adult will be represented in both ethnic sub-groups. However, the extent of this overlap was found to be very small (less than 1,000 for any combination in any Census year) and we go only so far as noting it here.

MEASURING THE WELLBEING OF “PACIFIC” HOUSEHOLDS USING CENSUS DATA

All data used in this paper were derived from the five-yearly New Zealand Census of Population and Dwellings, as conducted between 1981 and 2006 by Statistics New Zealand.³ The use of Census data has both advantages and disadvantages for this analysis of changes in wellbeing for Pacific households.

The disadvantages are linked to the limited range and depth of information collected, the frequency of collection for some data, and the ways in which family types are defined and measured. For the purposes of creating indicators with which to measure changes in wellbeing, we are constrained by the information available through Census data. Family and household wellbeing may be influenced by other factors (e.g. the perceived quality of family/household relationships) for which no Census information is available. In addition, there may be particular aspects of wellbeing that are of importance for Pacific households but are not collected by the Census.

This lack of suitable information also results in some indicators being indirect proxy measures for the attributes in which we are interested. For example, the health indicator analysed in the wider study (Cotterell et al. 2008) examines changes in the proportion of families/households with at least one adult receiving health-related benefits, rather than being an actual measure of the state of physical health of a family. The format of Census data can also place limitations on the ability to interpret changes. For example, income data are available only in banded categories rather than discrete amounts; therefore our “median equivalised income” indicator is based on these banded data, and uses medians of the band categories, which reduces its accuracy.

Finally, the Census definition of “family” incorporates only those members who live within the same household. Census wellbeing measures may thus be unsatisfactory indicators for families whose members live in multiple locations. In particular, this relates to separated/divorced adults 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, an issue which may be of particular importance for Pacific households.

The Census has the following advantages for conducting a study of this type. Firstly, the use of Census data allows for an assessment of continuity and change in societal patterns over a long period of time (in this case 25 years). Secondly, because the Census collects information on (almost) all members of the population,⁴ its use allows us to examine the wellbeing of all

³ The research team obtained access to confidentialised unit record data through Statistics New Zealand’s secure Data Laboratory facility in Auckland. None of the 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 so these details are not available to users of these data.

⁴ For information on Census coverage, see Statistics New Zealand 2001.

New Zealanders and to report specific information on small population groupings, as in the case of this research. Finally, because the Census collects information on all individuals living in common dwelling units (households), we can conduct household- and family-level analyses, acknowledging the fundamental interdependence between family members and showing how the impact of wider change has varied for different types of families.

Wellbeing Indicators

The original set of indicators used for this study was obtained from the work of Milligan et al. (2006). The main report based on these indicators (Cotterell et al. 2008) describes various changes made to and exclusions made from the original set. This paper presents overall results for Pacific families using that same resulting set of indicators, described in Table 1 below, with only the Income, Employment and Housing domains being covered for sub-group analyses.

Table 1 Wellbeing Indicators Presented

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

Examining Changes in Wellbeing for Samoan, Cook Island, Tongan and Niuean

households

The sections that follow examine differences in the income, employment and housing wellbeing indicators among the four largest Pacific ethnic groups, and changes in wellbeing over the 1981--2006 period. The analysis is conducted for households where at least one of the adults is of either Samoan, Cook Island, Tongan or Niuean ethnicity.

MEDIAN EQUIVALISED INCOME

Indicator definition: Median equivalised household income for households with at least one Samoan, Cook Island, Tongan or Niuean adult present.

Samoan Median Equivalised Income

Table 2 Median Equivalised Household Income, by Household Category, 1981--2006, for Households with at Least One Samoan Adult

Household category	1981	1986	1991	1996	2001	2006
Couples without children	\$45,385	\$44,053	\$39,945	\$46,459	\$50,100	\$50,401
Single-parent families	\$11,471	\$16,708	\$14,565	\$14,311	\$14,594	\$20,274
Other one-family households	\$25,641	\$25,861	\$25,282	\$29,679	\$33,707	\$36,484
Multi-family households	\$18,671	\$20,150	\$20,071	\$21,974	\$24,813	\$30,389

All categories of Samoan households experienced increases in median equivalised household income over the period 1981--2006. Samoan couples without children were best off, followed by other one-family households.⁵ Single-parent families experienced the largest percentage increase in median equivalised income over the period (nearly 77%), but still had the lowest overall level of household income.

Cook Island Median Equivalised Income

Table 3 Median Equivalised Household Income, by Household Category, 1981--2006, for Households with at Least One Cook Island Adult

Household category	1981	1986	1991	1996	2001	2006
Couples without children	\$45,385	\$47,938	\$39,945	\$41,193	\$45,574	\$46,151
Single-parent families	\$13,203	\$16,708	\$14,165	\$14,311	\$14,112	\$16,546
Other one-family households	\$28,790	\$29,188	\$27,614	\$30,192	\$34,528	\$36,908
Multi-family households	\$20,059	\$21,737	\$20,071	\$20,107	\$23,731	\$27,673

The median equivalised income of all Cook Island households rose over the 25 years, with couples without children having the highest level of income at every point of analysis. Multi-family households experienced the largest percentage increase in income (38%), while couples without children recorded the lowest increase at 1.7%.

⁵ The definition of "other one-family households" includes the categories of couples with children, couple only plus others, couple with children plus others, and one-parent families plus others.

Tongan Median Equivalised Income

Table 4 Median Equivalised Household Income, by Household Category, 1981--2006, for Households with at Least One Tongan Adult

Household category	1981	1986	1991	1996	2001	2006
Couples without children	\$40,000	\$40,730	\$31,782	\$41,193	\$43,191	\$46,224
Single-parent families	\$15,520	\$14,949	\$14,151	\$13,745	\$13,309	\$15,950
Other one-family households	\$25,641	\$24,985	\$20,755	\$25,331	\$27,345	\$31,013
Multi-family households	\$18,987	\$20,060	\$17,520	\$19,050	\$20,018	\$25,398

Like their Samoan and Cook Island counterparts, all Tongan households had higher levels of median equivalised income in 2006 than they did in 1981. However, in almost all time periods, Tongan families appear to have been worse off economically than the other Pacific groups. Tongan multi-family households experienced the largest percentage increase (34%), as did their Cook Island equivalents.

Niuean Median Equivalised Income

Table 5 Median Equivalised Household Income, by Household Category, 1981--2006, for Households with at Least One Niuean Adult

Household category	1981	1986	1991	1996	2001	2006
Couples without children	\$43,462	\$44,053	\$39,945	\$46,459	\$50,100	\$50,410
Single-parent families	\$14,622	\$16,708	\$14,565	\$14,311	\$14,550	\$20,274
Other one-family households	\$27,424	\$28,225	\$27,614	\$31,641	\$35,532	\$40,114
Multi-family households	\$22,308	\$21,566	\$20,300	\$24,830	\$27,336	\$29,988

Niuean households experienced increases in median equivalised income between 1981 and 2006, with Niuean other one-family households recording a 46.3% increase over this period. Unlike Tongan single-parent families (discussed above), who experienced little change in median equivalised household income, Niuean single-parent families experienced a 38.6% increase over the 1981--2006 period.

LOW INCOME

Indicator definition: The proportion of all households with at least one Samoan, Cook Island, Tongan or Niuean adult whose equivalised gross income is less than 60% of the median equivalised gross household income.

Samoan Low Income

Table 6 Low Income, by Household Category, 1981--2006, for Households with at Least One Samoan Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	21.7	10.8	12.5	15.0	15.7	17.6
Single-parent families	75.0	64.4	68.3	64.4	65.4	59.4
Other one-family households	39.0	35.3	32.3	26.1	25.5	26.6
Multi-family households	55.2	51.2	45.9	41.7	41.0	37.8

In the 25 years under examination, the prevalence of low income decreased among all Samoan households. Single-parent families and multi-family households were the most likely to experience low income at each time point. However, these groups also recorded the biggest decreases in the prevalence of low income, of 15.6 and 17.4 percentage points respectively.

Cook Island Low Income

Table 7 Low Income, by Household Category, 1981--2006, for Households with at Least One Cook Island Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	20.2	9.9	11.1	17.7	17.8	24.4
Single-parent families	71.2	65.1	75.0	71.1	71.0	69.9
Other one-family households	32.1	25.8	25.4	23.3	21.3	23.9
Multi-family households	52.0	45.5	47.5	45.4	45.7	43.2

Three of the four Cook Island household categories saw decreases in the prevalence of low income between 1981 and 2006. Couples without children did quite well from 1981 to 1991, with the rate dropping from 20.2% to 11.1%. However, the rate then increased to 24.4% in 2006. The situation improved only marginally for Cook Island single-parent families during the study period. Their most favourable point was in 1986, when 65.1% were living on less than 60% of the median equivalised gross household income. Both other one-family households and multi-family households saw decreases in the prevalence of low income by about 9 percentage points.

Tongan Low Income

Table 8 Low Income, by Household Category, 1981--2006, for Households with at Least One Tongan Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	27.3	14.6	18.8	18.7	19.4	21.9
Single-parent families	69.4	67.1	70.4	70.7	72.4	68.5
Other one-family households	38.0	36.9	42.7	37.8	36.5	36.0
Multi-family households	57.0	51.5	51.4	50.6	51.5	46.8

All Tongan households saw decreases over time in the prevalence of low income from 1981 to 2006. However, for single-parent families and other one-family households the improvements were slight. Overall, single-parent families fared worst; even at their most favourable point (in 2006), 68.5% of this category were surviving on less than 60% of the median equivalised gross household income.

Niuean Low Income

Table 9 Low Income, by Household Category, 1981--2006, for Households with at Least One Niuean Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	22.7	12.2	13.1	12.9	14.2	18.9
Single-parent families	67.9	63.5	67.2	65.2	68.1	59.1
Other one-family households	34.8	27.0	25.2	21.3	19.1	18.2
Multi-family households	49.0	48.5	44.2	39.7	39.6	37.6

Niuean households had decreases across the board in the prevalence of low income from 1981 to 2006, with other one-family households and multi-family households the most “improved” over time. As with each of the other Pacific ethnic groups, Niuean single-parent families were the most likely to be experiencing low income, at all Census points.

EMPLOYMENT STATUS

Indicator definition: The proportion of households with no adult engaged in formal paid employment.

Samoan Employment Status

Table 10 Employment Status, by Household Category, 1981--2006, for Households with at Least One Samoan Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	7.4	10.1	20.3	17.4	15.6	16.2
Single-parent families	66.2	65.7	77.5	68.5	59.1	54.6
Other one-family households	6.8	7.5	25.7	19.1	16.0	13.3
Multi-family households	27.7	33.7	52.8	41.0	37.1	32.3

For all types of Samoan households, the employment status data follow a similar trend. The proportion with no adult in paid employment increased through the 1980s and early 1990s before declining. However, the declines that occurred from the mid 1990s onwards still did not bring the proportions back to their 1981 levels, except for in the case of single-parent families.

The employment pattern exhibited for all Samoan households was repeated for Cook Island households, as shown below. That is, for each household type the proportion with no adult in formal paid employment rose through the 1980s and peaked in 1991 before generally declining, through to 2006, but with the 2006 proportions still higher than those seen at the start point in 1981. Again, single-parent families presented the exception.

Cook Island Employment Status

Table 11 Employment Status, by Household Category, 1981--2006, for Households with at Least One Cook Island Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	7.8	9.0	20.4	21.5	18.0	20.9
Single-parent families	64.8	69.6	81.0	71.4	60.9	58.6
Other one-family households	6.8	6.6	22.8	17.2	14.3	13.7
Multi-family households	29.9	37.6	52.9	48.6	39.1	34.2

Tongan Employment Status

Table 12 Employment Status, by Household Category, 1981--2006, for Households with at Least One Tongan Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	12.5	14.3	26.8	19.6	18.4	17.3
Single-parent families	54.0	64.8	75.4	71.9	61.3	58.9
Other one-family households	7.7	8.9	30.8	23.7	18.9	15.4
Multi-family households	23.4	30.1	48.3	41.1	39.0	33.9

The trends for this indicator among Tongan and Niuean households, with one exception, repeat the patterns seen above. For Tongan single-parent families the proportion where the adult was not in formal paid employment increased between 1981 and 2006, whereas for Samoan, Niuean and Cook Island single-parent families the proportions declined over that period.

Niuean Employment Status

Table 13 Employment Status, by Household Category, 1981--2006, for Households with at Least One Niuean Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	14.7	19.2	22.4	20.1	17.0	22.2
Single-parent families	65.5	64.6	80.9	68.5	57.3	53.7
Other one-family households	8.7	7.7	20.8	17.6	12.2	9.3
Multi-family households	30.1	38.1	52.7	41.5	34.8	30.2

LONG HOURS WORKED

Indicator definition: The proportion of households where at least one adult works more than 48 hours per week.

Samoan Hours Worked

Table 14 Hours Worked, by Household Category, 1981--2006, for Households with at Least One Samoan Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	14.6	25.8	19.0	31.4	27.1	24.7
Single-parent families	3.0	3.8	2.4	3.2	4.5	4.0
Other one-family households	14.5	21.4	15.5	23.7	24.1	22.6
Multi-family households	6.2	9.9	7.5	12.3	11.7	13.4

All Samoan households, no matter what their structure, were more likely to have at least one adult working more than 48 hours per week in 2006 than in 1981. Samoan couples without children were the most likely, at each census point under study.

The pattern of hours worked for Cook Island households follows a similar trend, but the situation for Cook Island couples without children was closer to that for Cook Island other one-family households.

Cook Island Hours Worked

Table 15 Hours Worked, by Household Category, 1981--2006, for Households with at Least One Cook Island Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	14.8	25.1	17.9	26.5	29.6	25.5
Single-parent families	2.3	3.5	2.2	2.9	4.7	4.7
Other one-family households	15.4	24.3	18.8	26.0	27.2	25.5
Multi-family households	7.6	9.8	7.6	10.4	11.5	13.3

Tongan hours worked

Table 16 Hours Worked, by Household Category, 1981--2006, for Households with at Least One Tongan Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	11.8	28.0	17.8	25.8	25.8	28.1
Single-parent families	4.1	4.6	2.2	3.2	4.0	4.1
Other one-family households	16.8	24.2	13.3	22.4	22.6	21.8
Multi-family households	6.7	10.9	5.4	13.1	13.2	14.7

The pattern of long hours worked for Tongan households was similar to those seen for Samoan and Cook Island households, with rates higher in 2006 than in 1981. The exception to this was for Tongan single-parent families, where the 2006 rate was identical to that in 1981.

The trend among Niuean households was also similar, with steady increases between 1981 and 2006 for most household types.

Niuean Hours Worked

Table 17 Hours Worked, by Household Category, 1981--2006, for Households with at Least One Niuean Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	18.9	27.7	17.5	27.9	29.0	21.3
Single-parent families	1.2	3.9	1.6	2.9	3.5	4.0
Other one-family households	14.4	25.2	17.9	26.5	28.9	27.4
Multi-family households	5.8	9.4	5.9	14.0	16.1	16.1

HOME OWNERSHIP

Indicator definition: The proportion of all households with at least one Samoan, Cook Island, Tongan or Niuean adult present, not living in owner-occupied dwellings.

Samoan Home Ownership

Table 18 (Non-) Home Ownership, by Household Category, 1981--2006, for Households with at Least One Samoan Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	66.1	59.4	52.4	48.9	49.8	55.8
Single-parent families	66.2	64.7	69.0	72.6	75.9	81.7
Other one-family households	48.5	43.1	44.1	49.1	54.8	65.0
Multi-family households	47.2	39.1	37.1	45.8	50.5	55.1

For three of the four Samoan household types, rates of home ownership decreased between 1981 and 2006. Samoan single-parent families fared worst, with home ownership rates decreasing from 33.8% in 1981 to 18.3% in 2006.

Samoan couples without children fared only slightly better than single-parent families in the 1981--1986 period, but from then on the rates of home ownership for Samoan couples without children increased overall, as opposed to the steadily decreasing rates of home ownership for the single-parent families. Samoan multi-family households had the highest rates of home ownership at all Census points except for 2001.

Cook Island Home Ownership

Table 19 (Non-) Home Ownership, by Household Category, 1981--2006, for Households with at Least One Cook Island Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	68.2	58.2	46.4	48.1	49.3	50.9
Single-parent families	75.5	74.8	74.7	76.9	79.3	85.8
Other one-family households	57.4	49.8	42.4	46.2	52.3	63.2
Multi-family households	59.9	55.5	45.9	52.2	55.1	62.2

Similar to their Samoan counterparts, three of the four Cook Island household types experienced decreases in rates of home ownership over the study period. Single-parent families typically have low levels of home ownership, and the proportion of Cook Island single-parent families owning their own home was never more than 25.2% (in 1986) in the study period, dropping to a low of 14.2% in 2006. Cook Island couples without children were the group most likely to be living in their own home in 2001 and 2006; prior to this other one-family households were most likely, and multi-family households also fared better than couples without children.

Tongan Home Ownership

Table 20 (Non-) Home Ownership, by Household Category, 1981--2006, for Households with at Least One Tongan Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	67.4	52.4	63.0	52.2	58.2	65.7
Single-parent families	66.7	66.7	71.2	74.5	77.1	82.8
Other one-family households	57.5	49.1	53.6	56.6	61.9	72.4
Multi-family households	55.2	48.5	48.1	51.5	57.3	64.2

Tongan couples without children saw a slight overall improvement in home ownership rates between 1981 and 2006, although they recorded much higher rates during the period, peaking in 1996 at 47.8%. For the other three household types the likelihood of living in a dwelling they owned decreased over the period, with the largest absolute decrease of 16.1 percentage points experienced by single-parent families. Indeed, that category was the least likely to own their own home at each Census point after 1981.

Niuean Home Ownership

Table 21 (Non-) Home Ownership, by Household Category, 1981--2006, for Households with at Least One Niuean Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	62.2	61.2	54.8	49.7	49.5	53.7
Single-parent families	72.0	73.4	73.4	77.7	81.3	82.5
Other one-family households	57.1	49.8	44.9	48.3	51.5	58.8
Multi-family households	59.3	54.4	46.3	48.5	50.8	59.3

The proportion of Niuean couples without children owning their own home increased overall between 1981 and 2006, with just a slight reversal of this trend between 2001 and 2006 -- a feature that was in fact observed for all household types. For Niuean single-parent families and other one-family households, the proportion owning their own homes declined, significantly for the former and slightly for the latter, over the 25 years, although other one-family households were better off than in 1981 up until the aforementioned turnaround between 2001 and 2006. Multi-family households saw an increase of 13 percentage points in the proportion owning their own homes between 1981 and 1991, but then saw a decrease, also of 13 percentage points, between 1991 and 2006.

RENTAL AFFORDABILITY

Indicator definition: The proportion of all households with at least one Samoan, Cook island, Tongan or Niuean adult present, living in rented dwellings, whose weekly rent is greater than 25% of their weekly gross equivalised household income.

Samoan Rental Affordability

Table 22 Low Rental Affordability, by Household Category, 1981--2006, for Households with at Least One Samoan Adult, Living In Rented Dwellings

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	25.7	28.1	37.5	33.0	29.2	27.3
Single-parent families	58.9	59.0	76.3	88.5	75.1	67.6
Other one-family households	45.8	48.8	66.9	74.0	62.8	63.0
Multi-family households	46.3	42.9	52.7	70.6	49.1	41.6

With the exception of multi-family households, a higher proportion of Samoan households were paying more than 25% of their weekly gross equivalised income in rent in 2006 than in 1981. Samoan couples without children were the least likely, and single-parent households the most likely, to be paying more than 25% of their income in rent, at all Census points. Samoan single-parent families peaked in 1996, when 88.5% had low rental affordability, before seeing an improvement to 67.6% in 2006, at which point they were still not as well off in this indicator as in 1981. Rental affordability improved for all Samoan household types between 1996 and 2006.

Cook Island Rental Affordability

Table 23 Low Rental Affordability, by Household Category, 1981--2006, for Households with at Least One Cook Island Adult, Living in Rented Dwellings

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	19.7	17.6	32.3	34.6	30.7	27.6
Single-parent families	49.7	52.4	78.9	89.9	75.9	68.3
Other one-family households	37.1	33.8	61.2	68.3	59.6	55.7
Multi-family households	35.5	30.9	47.9	73.0	47.7	33.0

The proportion of Cook Island single-parent families spending more than 25% of their income on rent rose from 49.7% in 1981 to a peak at 89.9% in 1996, before declining to 68.3% by 2006. The proportion for Cook Island other one-family households rose from 37.1% in 1981 to a peak at 68.3% in 1996, before decreasing to 55.7% by 2006. Cook Island couples without children fared the best, but still almost one in five (19.7%) such households were spending more than 25% of their income on rent in 1981, increasing to a peak of 34.6% in 1996, before slipping down to 27.6% by 2006.

Tongan Rental Affordability

Table 24 Low Rental Affordability, by Household Category, 1981--2006, for Households with at Least One Tongan Adult, Living in Rented Dwellings

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	24.1	34.0	50.0	41.9	37.6	39.8
Single-parent families	62.1	67.3	81.5	92.7	76.8	69.3
Other one-family households	46.7	55.9	76.8	81.0	68.0	66.9
Multi-family households	56.9	52.4	59.4	80.0	54.5	46.5

Multi-family households were the only Tongan household type to have higher levels of rental affordability in 2006 than in 1981. For the remaining three types, the proportions who were paying more than 25% of their weekly income in rent increased. The largest increases were experienced by other one-family households (22.2 percentage points) and couples without children (15.7 percentage points).

Niuean Rental Affordability

Table 25 Low Rental Affordability, by Household Category, 1981--2006, for Households with at Least One Niuean Adult, Living in Rented Dwellings

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Couples without children	22.7	21.8	39.2	29.8	31.9	28.8
Single-parent families	52.7	57.1	79.4	88.0	74.1	70.4
Other one-family households	45.1	42.2	66.7	71.2	60.1	61.8
Multi-family households	45.6	43.9	50.0	70.9	53.7	44.2

The pattern for rental affordability for households with at least one Niuean adult followed those of their Samoan, Cook Island and Tongan counterparts, with only multi-family households experiencing a decrease in the proportion paying more than 25% of weekly income in rent over the study period. The proportion for Niuean other one-family households improved after the peak in the mid-1990s but still remained quite substantial at 61.8% in 2006. Niuean couples without children fared best on this indicator, but still almost 30% of them were suffering from low rental affordability in 2006. Niuean single-parent families fared worst, as was the case for the other ethnic groups.

CROWDING

Indicator definition: The proportion of all households with at least one Samoan, Cook Island, Tongan or Niuean adult present living in dwellings that require at least one additional bedroom to meet the sleeping needs of the household.

Samoan Crowding

Table 26 Crowding, by Household Category, 1981--2006, for Households with at Least One Samoan Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Single-parent families	49.5	47.3	44.9	40.0	40.3	42.6
Other one-family households	42.0	45.0	42.9	37.7	33.1	38.0
Multi-family households	83.3	84.2	81.3	73.9	70.1	70.2

The incidence of crowding declined for each of the Samoan household types in this analysis. Of particular interest is that while the incidence of crowding declined between 1981 and 2001, it increased between 2001 and 2006. Samoan multi-family households were the most crowded, with never less than 70.1% (2001), and a peak of 84.2% in 1986, needing at least one additional bedroom.

Cook Island Crowding

Table 27 Crowding, by Household Category, 1981--2006, for Households with at Least One Cook Island Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Single-parent families	47.3	42.2	39.7	37.8	37.4	41.7
Other one-family households	42.2	37.9	32.4	29.6	26.7	32.2
Multi-family households	85.8	82.3	77.1	72.9	69.8	71.6

The pattern seen in the Samoan analysis is repeated for Cook Island households. The incidence of crowding declined for all household types between 1981 and 2001, and then increased between 2001 and 2006. As might be expected, multi-family households experienced the highest levels of crowding, regardless of the time point.

Tongan Crowding

Table 28 Crowding, by Household Category, 1981--2006, for Households with at Least One Tongan Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Single-parent families	51.0	46.6	48.5	41.7	45.4	49.3
Other one-family households	38.7	42.6	45.7	41.3	39.8	48.4
Multi-family households	71.7	81.6	78.9	75.4	71.0	76.2

The incidence of crowding increased for two of the three Tongan household types, and decreased only slightly for the third, single-parent families, for the period 1981--2006. For Tongan other one-family households (the largest proportion of households), the extent of crowding grew nearly 10 percentage points over the period. Tongan multi-family households

had the largest proportions needing extra bedrooms at each Census point, reaching a peak of 81.6% in 1986 before decreasing to 71% in 2001 and rising back up to 76.2% in 2006.

Niuean Crowding

Table 29 Crowding, by Household Category, 1981--2006, for Households with at Least One Niuean Adult

Household category	1981 (%)	1986 (%)	1991 (%)	1996 (%)	2001 (%)	2006 (%)
Single-parent families	53.0	46.9	44.8	43.6	42.0	42.7
Other one-family households	44.7	40.6	36.0	31.7	30.0	31.3
Multi-family households	85.1	81.9	79.5	71.0	65.5	69.3

A trend towards less overcrowding existed for all Niuean household categories over the study period. Niuean multi-family households suffered from the most crowding, with a minimum of 65.5% (in 2001) needing an extra bedroom. For Niuean single-parent families, crowding improved over the study period but was still quite substantial, with a minimum of 42% (in 2001) needing at least one extra bedroom.

DISCUSSION

For each of the four Pacific ethnicities analysed, couples without children had the highest level of median equivalised gross income at every Census point over the 25 years between 1981 and 2006. Single-parent families consistently had the lowest levels of incomes for each Pacific ethnic group. Samoan households generally had higher levels of income than their counterparts in the other ethnic groups, but were at times followed closely by Niuean households. For each Pacific ethnicity, the trend in median income levels followed a similar pattern of declining from 1981 through to 1991 and then increasing on through to 2006, with levels then being higher than in 1981 in all cases.

Over the period between 1981 and 2006 the overall trend in proportions of “low income” was similar for each Pacific ethnicity. For almost every household type, the proportions on low income declined between 1981 and 1986 and then rose from 1986 to 1996/2001 before again declining. With the exception of Cook Island couples without children, the proportions experiencing low income were lower in 2006 than in 1981. For each of the four Pacific ethnicities examined, couples without children were the least likely to have income below 60% of the median equivalised gross household income, followed by other one-family households. For each ethnic group, single-parent families were the most likely to have such “low income” at all time points.

For each of the Pacific ethnicities, the households with the highest proportion where no adults were engaged in formal paid employment were single-parent families, followed by multi-family households. For almost all household types, regardless of ethnicity, the proportions where no adult was in paid employment were higher in 2006 than in 1981. The only exceptions to this were for Samoan, Cook island and Niuean single-parent families.

All Pacific households, regardless of ethnicity and structure, with the exception of Tongan single-parent families, experienced an increase in the likelihood of having at least one adult

working more than 48 hours, between 1981 and 2006. Other one-family households and couples without children, regardless of ethnicity, were the household types most likely to have at least one adult working long hours at every data point.

For most Pacific households, regardless of household composition or the ethnicity of the adults, levels of home ownership declined overall between 1981 and 2006. The exceptions to this were couples without children for each of the four ethnicities, for whom rates of home ownership increased, and Niuean multi-family households, whose rates increased 1981--1991 then returned to about their 1981 levels by 2006. As would be expected, single-parent families had the lowest levels of home ownership for all ethnic groups at all points in time.

Between 1981 and 2006 the proportion of households paying more than 25% of their median income in rent increased, regardless of ethnicity, and for all household types except for multi-family households. Whatever the Pacific ethnicity of at least one of the adults, couples without children were the least likely household type to be paying more than 25% of their weekly income in rent at every time point in the analysis. Single-parent families, again regardless of their Pacific ethnicity, were the most likely to be paying more than 25% of their weekly income in rent.

With the exception of Tongan single-parent families and multi-family households, the incidence of crowding declined for all household types regardless of the Pacific ethnicity of the adults over the period 1981--2006. However, this overall decrease contained an interesting internal shift, whereby there was an increase between 2001 and 2006. In most cases these reversals meant that crowding was around 1996 levels in 2006. For Tongan multi-family households and other one-family households, these levels were higher than they were in 1981.

CONCLUSIONS

This paper has highlighted changes in selected aspects of wellbeing for different sub-categories of the Pacific population in New Zealand. The evidence shown in relation to income, employment and housing demonstrates that differences in levels of wellbeing exist among the four Pacific ethnicities examined.

The existence of these differences illustrates that it is problematic to treat the Pacific population as a homogeneous group. This has implications for policy makers in that they may well need to take these differences into account when designing policy measures that may have an impact on the Pacific population.

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