ETHNICITY MEASURES, INTERMARRIAGE AND SOCIAL POLICY

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Abstract

Ethnicity is a key variable in social science research and policy making. Yet, for many individuals in New Zealand society ethnicity is a fluid characteristic. Against a backdrop of historical debates about the measurement of ethnicity, this paper initially explores some of the recent changes that have taken place in the recording of ethnicity in the New Zealand Census of Population and Dwellings. There is particular emphasis on how individuals belonging to more than one ethnic group have been recorded and reported in official publications. Next, several key changes recommended by Statistics New Zealand in its 2004 review of ethnicity statistics are outlined. Finally, there is a discussion of some of the implications for social scientists and policy makers of recognising dual and multi-ethnicity.

INTRODUCTION

Measuring and reporting the ethnic composition of New Zealand is an important part of an ongoing process of understanding our identity as individuals, as groups, and as a nation. Ethnicity (and, in some situations, ancestry) is a very important dimensional variable in social science research and policy making. In New Zealand, the Treaty of Waitangi creates a particular need for definitions as to who is Māori and who is not. However, ethnicity is not a human characteristic that can be easily identified or measured. In common with other countries, in New Zealand there remains ongoing debate as to the best way of measuring ethnicity in data collections, like the five-yearly Census of Population and Dwellings; in sample surveys, like the Household Labour Force Survey; and in administrative collections, like death certificates. This debate

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includes regular reviews of ethnicity statistics undertaken by Statistics New Zealand (Statistics New Zealand 2004). Yet despite these discussions, Baehler (2002:27) argues that in New Zealand there is a "pent-up demand for dialogue on the broad subject of ethnicity and what it means for national identity and public policy".

The first section of this paper explores some of the historical debates around the collection and reporting of ethnicity and, to a lesser degree, ancestry data in New Zealand. The United States is used as a comparison. In doing so, the paper generally uses the term "race" when referring to research in the United States, but "ethnicity" in relation to New Zealand. With this background in mind, the paper then examines changes that have taken place in the recording of ethnicity in the New Zealand Census of Population and Dwellings since 1991.[2] While there are many dimensions to debates about the collection and reportage of ethnicity data, I am particularly interested in the way in which respondents who acknowledge belonging to more than one ethnic group have been classified. With regard to this issue, the paper then outlines some changes to past practice now recommended by Statistics New Zealand (2004) in its *Review of the Measurement of Ethnicity*.

That people choose to record multiple ethnicities generally reflects that:
- they are the children of either recent or distant ethnic intermarriages
- they place value on more than one ethnic group.[3]

The second section of the paper explores some social policy implications of historical and current ethnic intermarriage, particularly between Māori and non-Māori, and the growing proportion of New Zealanders who claim multi-ethnic affiliations.

MEASURING ETHNICITY AND ANCESTRY

The Classification of Individuals

Classifications of race and ethnicity have a long and often problematic history. In a review of this history, Stephan and Stephan (2000) note that by the late 18th century, biologists began to subject humans to the same type of classification system previously used only for plants and other animals.[4] The result was that physical characteristics were used to define tribes or races. In common with other countries, race was the basis of most early New Zealand statistical collections (Statistics New Zealand 2004).

2 For a detailed history of changes to the census in New Zealand prior to 1991 see Brown (1984), Khawaja et al. (2000), Pool (1991) and Statistics New Zealand (2004).
3 The term "marriage" includes both legal unions and de facto relationships.
4 For a New Zealand review of this history, and the links of race to racism, see Spoonley (1993). See also Kukutai (2001).

While the term "race" continues to be used in countries like the United States, Stephan and Stephan suggest that race is now more properly viewed as a social rather than a biological construct, even if biology still plays a role in the phenotypic expression of some physical characteristics.[5] The majority of social scientists share this view, as do most individuals studying the biological sciences (Graves 2001, Rivara and Finberg 2001).[6] Research by the latter group not only undermines concepts of "pure" races but also any separation of human beings into races. Based on this type of research, "ethnicity" has been gradually replacing the term "race" in scientific literature (Afshari and Bhopal 2002).

New Zealand social science researchers and official agencies now almost always use the term ethnicity rather than race.[7] Use of the word "ethnicity" moves the discussions further away from biological characteristics and more firmly into the area of social construction. Yet, as Collins (2001a:18) argues, "there is no deep and analytically important distinction between 'race' and 'ethnicity'".[8] He goes on to suggest:

> Conventionally, races are regarded as physically distinctive (for example, by skin color), while ethnic groups are merely culturally distinct. But ethnic groups also have somatotypical differences (hair, skin color, facial structures, and the like), and these differences are one of the chief markers that people commonly seize on in situations where consciousness of ethnic divisions is high. A sociological distinction between ethnicity and race is analytically pernicious, because it obscures the social processes determining the extent to which divisions are made in the continuum of somatotypical graduations.

The construction of ethnicity for individuals is a complex process and there is much debate about how this process takes place (e.g. Didham 2004, Kukutai 2003, Pearson 1990, 2001, Statistics New Zealand 2001, 2003b, 2004). Statistics New Zealand (2004) sets out a number of factors that may contribute to, or influence, a person's ethnicity. As they note, many of these are interrelated. This list is:

- name[9]
- ancestry
- culture

5 Phenotype is defined as "the observable physical or biochemical characteristics of an organism, as determined by both genetic makeup and environmental influences".

6 Graves (2001) estimates that perhaps only six genes determine skin colour out of the 30,000 to 40,000 genes individuals have. However, some scientists argue that even very small differences in some key genes can have major effects (Bone 2003: 24).

7 In New Zealand a person's "race" was recorded in censuses prior to 1971, "origin" in 1971, and "ethnic origin" from 1976 until 1986. However, the term "race" has not entirely disappeared in New Zealand. As one example, the official agency set up to investigate cases of racial/ethnic discrimination is still called the Race Relations Office.

8 For a further discussion of distinctions between race and ethnicity, see Cornell and Hartmann (1998).

9 Statistics New Zealand (2004:7) notes that a "name" is "a common proper name that collectively describes a group of individuals and authenticates the characteristics and the history of its members".

- where a person lives and the social context
- race
- country of birth and/or nationality
- citizenship
- religion and language.

As a subset of these influences, Broughton (1993) identifies the three key elements of defining Māori identity as whānaungatanga (the family and kinship ties), te whenua (the land) and te reo (the language). Kilgour and Keefe (1992), when considering Māori health statistics, list three possible types of definition for Māori: biological, self-identity and descent. The key difference between biological and descent is that in the latter "degrees of blood" are not specified. How much these various influences matter often depends on the reason why identity is being determined. As O'Regan (2001:87) notes, when resources are at stake, identity definition becomes more important:

> The difficulties inherent in the process of distinguishing those who have the right or ability to identify with a particular group are further complicated when economic and political rights are associated with that identity.

O'Regan (p.86) also comments that:

> Countries that have a long history of intermarriage between ethnic groups can usually claim an equally long history of conflicting views on which factors are required to determine ethnic identity.

Recognising that there may be many influences on the choice of ethnic group by individuals, Statistics New Zealand's definition of an ethnic group has in recent years been very broad. As a result of its review of ethnicity statistics, Statistics New Zealand (2004:14) has proposed a new guiding definition. This draws on the work of Smith (1986).

> An ethnic group is made up of people who have some or *all* of the following characteristics (original emphasis):
> - a common proper name
> - one or more elements of common culture which need not be specified, but may include religion, customs, or language
> - unique community of interests, feelings and actions
> - a shared sense of common origins or ancestry, and
> - a common geographic origin.

While focusing on individuals who are constructing their own ethnicity, it is important to keep in mind that various "others", such as employers, landlords, teachers and the police, will also be constructing a person's ethnicity. For instance, Xie and Goyette (1997:549-550) note that, for members of minority groups in the United States, "choice"

about ethnicity is limited by "labels imposed by other members of society or by custom." Waters (1990, 1996) also puts forward the view that minority groups have less flexibility in determining their ethnicity. Often this construction of ethnicity will be constrained or influenced by observable characteristics (Brunsma and Rockquemore 2001, Mason 2001, Thomas and Nikora 1995). This includes phenotypic expression of particular physical characteristics, such as skin colour or, at times, surnames. Yet physical characteristics and surnames can be misleading. For instance, when announcing a top female Māori scholar, *Mana* magazine (2002:22) focuses initially on physical characteristics, but notes, "Don't be fooled by the blond hair and the green eyes. She's Māori, really, and is our top scholar for the year." That a top all-round female Māori scholar in 2003 had a stereotypical Asian surname is another example (NZQA 2003).

While social scientists now tend to see ethnicity as primarily a social construct, there is still a vigorous debate among international health researchers as to whether the phenotypic expression of particular physical characteristics is important (e.g. Bhopal 2002, Goodman 2000, Graves 2001, Kaufman and Cooper 2002, Rivara and Finberg 2001, Satel, 2000, Schwartz 2001, Wade 2003, Witzig 1996). The issue is whether particular genes alter the propensity of groups to be at risk from certain types of illness. This also raises questions of whether medical treatment should vary on the basis of ethnicity.[10]

In New Zealand and the wider Pacific, examples can be found of medical research that finds ancestry – descent – to be a relevant variable for some medical and health-related outcomes (e.g. body mass index, obesity, vulnerability to type II diabetes) (Craig et al. 2001, Grandinetti et al. 1999, Houghton 1996, Swinburn et al. 1999). New Zealand researchers in the field of multiple sclerosis report a growing incidence of this disease among Māori and speculate that this may be due to the mixing of genes with people who have European ancestry (*Dominion Post* 2003).[11] Yet, in New Zealand, other health researchers have suggested that "genetics plays only a small part in ethnic differences in health, and other factors are often more amenable to change" (Pearce et al. 2004:1070). The researchers go on to suggest that an "overemphasis on genetic explanations may divert attention and resources from other more important influences on health" (p.1071).

Some of the research quoted suggests that for data collections used in health studies an accurate record of ancestry, as well as information on cultural affiliations, may be important. Yet there are major problems with ancestry information. First, how far back

10 Graves (2001) suggests there are major dangers in practising medicine based on race. If doctors focus on risk factors that are associated with particular groups then they may overlook far more important risk factors such as family background, lifestyle and the living environment.

11 This research by Lou Gallagher of the Health Services Research Centre draws on Fawcett and Skegg (1988) and Hornabrook (1971).

does one go when assessing ancestry? For example, Kaufman and Cooper (2002) comment on how the United States Office of Management and Budget defines the Black population in the United States. This definition links ancestry back to Africa, but Kaufman and Cooper note that, "In the broadest interpretation, all of humanity meets this definition" (p.292).[12] In addition, broad, and often partial, measures of ancestry do not provide the detailed level of information on genetic makeup needed to investigate the effect of genes on health outcomes.

Self-reported information on ethnicity also provides very limited information, or often no information, as to whether particular genes are being passed on through ancestral lines if ethnicity is primarily culturally defined. In addition, even if ethnicity often is connected to ancestry, as Kaufman and Cooper note, despite major advances in the field of genetics, information about genes and the variation within them is still very limited. They also argue that the first glimpse of variation in genes provided by the human genome project indicates the inadequacy of existing racial classification schemes (p.293). Finally, if there are, in fact, any unique ethnic/racial gene pools, intermarriage potentially mixes them and adds considerable complexity to any ancestry/ethnicity-based determination of health risk factors.

In the New Zealand census, the census ancestry question relates only to Māori ancestry. As an example, in the 2001 census a question asks whether the respondent is "descended from a Māori". This is followed by the sentence "That is, did you have a Māori birth parent, grandparent or great-grandparent, etc?" This type of question, unlike earlier censuses, provides no information on "degrees of blood". It is asked because the collection of data on Māori descent is a statutory requirement under the Electoral Act (1993). Māori descent data are used in conjunction with electoral registration data to calculate Māori electoral populations that are used in determining the boundaries of Māori electoral districts. The Māori descent data are also used in projections of the Māori descent population. In addition, the Māori descent question in 1991, 1996 and 2001 provided a filter to the iwi question. Given that only Māori ancestry data are collected, it is not possible to determine whether census respondents have dual or multiple ancestry.

For data collections such as the census, ancestry does not have to be proven. However, when resources or political influence are directly at stake, proof of ancestry is generally required. When discussing the allocation of benefits to members of Kāi Tahu, O'Regan (2001:96) notes that all members are entitled to equal access to collective tribal benefits. However, O'Regan adds, "that right is inalienable as long as you have proven descent

12 Human Genome researcher Francis Collins (2001b) suggests that everyone in the world descended from a common ancestral pool of about 10,000 individuals who lived in Africa about 100,000 years ago. He argues that most of the genetic variance was already present in those 10,000 people.

to Kāi Tahu". Biological links override cultural construction for eligibility to be on the Māori electoral roll (Butcher 2003:37).

While ancestry often influences ethnic choices, in their research on mixed-heritage individuals in the United States, Stephan and Stephan found that ethnic identity was not necessarily associated with ancestry (1989, 2000). Individuals may have ancestral ties with a group without identifying themselves or being identified by others as members of that group. Equally, some individuals may have no ancestral linkages with a group, but for a variety of reasons strongly identify with it.

New Zealand census data have shown some mismatch between those recording Māori ancestry and those recording Māori ethnicity. In 1991, 1996 and 2001, a higher number of people noted some Māori ancestry than chose Māori as one of their ethnic groups. In 2001, the number reporting ancestry was 604,110 while the total Māori ethnic group was 526,281.[13] In 2001, 5,322 respondents reported they belonged to the Māori ethnic group but stated they did not have Māori ancestry, while a further 6,846 respondents did not know if they had Māori ancestry but nevertheless recorded themselves as belonging to the Māori ethnic group.[14] The mismatch between ancestry and ethnic identity for some individuals has been found in other studies of Māori (e.g. Broughton et al. 2000).[15] As an added layer to this complexity, in 2001 there were 8,796 people who wrote down an ethnic response "New Zealander" while simultaneously recording Māori ancestry.

There is also research to suggest that how people define the ethnic or racial group they belong to can change according to how questions are asked as well as the context in which they are asked. In the United States, Harris and Sim (2001) use data from the National Longitudinal Study of Adolescent Health to examine patterns of racial classifications among multiracial populations. The survey had four main indicators of race. These were questionnaires completed at home, at school, by an interviewer who recorded their own observation of racial group, and a questionnaire completed by a primary caregiver. Harris and Sim found that around 12% of youth provided inconsistent responses to the nearly identical questions, context and age affected the choice of a single race identity, and youth who classified themselves as from mixed racial group were far more likely to be misclassified by the interviewer than those

13 The ratio of people noting Māori descent to those affiliating with the Māori ethnic group has changed over the last three censuses. In 1991 the number with Māori descent was 18% higher than the Māori ethnic group, this declined to 11% higher in 1996 but rose again to 15% higher in 2001. The group who record Māori descent but not Māori ethnicity include those who identify their iwi. In 2001, 12% of Māori descent knew their iwi but did not identify as part of the Māori ethnic group.

14 Mistakes by census respondents completing the ancestry or self-identified ethnicity forms, and data processing errors, together probably explain some of the 5,322 and 6,846 people.

15 Of the 15% of individuals in the Christchurch Health and Development Study who identified as having some Māori ancestry, a quarter stated they had no Māori ethnic affiliation (Broughton et al. 2000).

identifying as being from just one racial group. They also found that the processes of racial classification depend on what combination of racial groups are involved. For example, bi-racial youth with an Asian parent had more flexibility in choosing their ethnic identity than black/white youth.

Waters (1990) reports on a number of American surveys where people were asked about their ethnic identity at two or more different times. In all of these surveys a significant number of people changed their ethnicity over time. While there tended to be a higher level of consistency among some minority groups, even among these groups there was some switching. The relative fluidity of ethnic or racial classification by individuals over time can, in some circumstances, reflect changes in incentives or disincentives to belonging to particular groups. In Canada, a census taken during the Second World War showed that very few people classified themselves as German when compared with censuses taken prior to the war (Ryder 1955).

For a variety of reasons, the growth of American Irish in the United States has been far faster than natural population growth would predict (Hout and Goldstein 1994), as has the growth of Native Americans (Light and Lee 1997). Waters (2000) demonstrates that the large growth in Native Americans in the last couple of censuses has been primarily due to switching from the "white" group. Data from the Dunedin Multidisciplinary Health and Development Study indicates that those identifying as Māori using the 1996 Census ethnicity question increased from around 3% at age 18 to about 7.5% at age 26 (R. Poulton personal communication 2003). In a study of intercensal change in New Zealand, Coope and Piesse (2000) found there was an inflow into the Māori ethnic group in 1996 of individuals amounting to 23.4% of the 1991 group. There was also an outflow from the Māori ethnic group between censuses of 5.7%.

In each of these examples, part of the fluidity is likely to be the result of past intermarriages and reflects the fact that many people have a diverse ancestry. They can therefore potentially choose their ancestral and ethnic identities from among a range of groups. In the United States, detailed qualitative research, set alongside data from official sources, shows that fourth, fifth and later generations of immigrants who were the offspring of several intermarriages would choose either single or multiple ethnicities from the many choices available to them. In narrowing down their choices these people often did not employ any straightforward process of prioritisation (Waters 1990).

Recording and Reporting Multi-Ethnic People in the Census

Throughout history, when previously isolated ethnic groups have come into contact with each other there is some amount of interethnic marriage. When somatic differences are very marked in a country, the cause must be either recent migration

from a remote part of the world (such as recent migration from Somalia to New Zealand), or social processes that maintain separation between different groups (Collins 2001a).

The complexity of constructing ethnicity when there has been historical ethnic intermarriage, as well as ethnic conflict, can be seen in New Zealand literature. In a poem entitled "Race relations", Colquhoun (1999) lays out a complex set of components of ancestry, kinship and country of origin for the individual the poem is about. This background includes Australian, English, Scottish, German, Jewish and Māori roots. He notes that historically many of these groups have been in conflict with each other. Referring to his English and German background, he remarks that, "One half of me lost a war the other half won" (p.38). Similarly, describing Scottish and Māori connections, he writes, "Somewhere along the line/ I have managed to colonise myself". Recording and reporting multiple ethnic groups in official data collections often reflects such complexity.

For some groups of people, having a mixed ancestry has little influence on self-identity and everyday life (for example, visibly white middle-class Americans of combined Polish and German extraction) (Waters 1990). But for other groups, being a descendant of interethnic marriage can be very important. For example, a study of Afro-Amerasians found that most of the individuals interviewed indicated that their "mixed" heritage was the "linchpin to their ethnic and racial identities" (Williams and Thornton 1998:264).

However, in New Zealand, O'Regan (2001:89) provides an example of how it is possible to recognise and value a mixed ancestry, but also to have a strong sense of identity with a particular ethnic group.

> It is valid therefore for modern day Kāi Tahu to have just as strong a sense of identity derived from their Māori heritage as from their Pākehā whaler or sealer heritage.

Equally, in New Zealand, Kukutai (2001:191) argues that:

> Having a higher socio-economic status or acknowledging non Māori ethnicity, does not make one any "less Māori".

Jackson (2003:62) also discusses "the part-Māori syndrome", which he suggests is an externally imposed concept. He argues that:

> Māori have always defined "Māoriness" in terms of whakapapa or genealogy. When children are born with whakapapa they are grandchildren or "mokopuna of the iwi". They are Māori.

Jackson goes on to state:

> The parts of their heritage which might be English, Chinese or Samoan is never denied, but in Māori terms they are simply mokopuna because it is impossible to have only a "part grandchild". Whakapapa is not divisible because mokopuna cannot be divided into discrete parts.

For all ethnic groups, it is likely that based on ancestry alone an even greater proportion of people "could have" reported two or more ethnic groups. Whilst this issue is not exclusive for Māori, it is more apparent due to parallel recording of Māori ancestry (but no other ancestry) in the New Zealand census. Why do people record only one ethnic group when they could record more based on ancestry? First and foremost, ethnicity is about affiliation, which can be different to ancestry or descent. A second-generation "New Zealander" with predominantly English ancestry, but a Dalmatian grandparent, may self-identify as just "European New Zealander". There could be many reasons for such a simplification, including using the European identity to cover both options and considering the Dalmatian grandparent as overwhelmed by the English ancestry. Likewise, despite virtually all, if not all, Māori having some non-Māori ancestry as a consequence of genetic mixing over the last 200 or more years (Butterworth and Mako 1989), some Māori respondents may see their non-Māori ancestry as irrelevant to their feelings of belonging to the Māori group – and vice versa, some non-Māori respondents may see their Māori ancestry as irrelevant. In relation to Māori, these are some of the reasons why someone might identify only as Māori:

- When quickly completing an official form, many individuals tend to simplify their ethnicity down to one group.
- The ethnicity question does not encourage multiple responses.
- Some respondents may be basing their response primarily on lived cultural experiences rather than on a mixed ancestry.
- Connected with this, some respondents may be influenced by the networks they are linked into. For example, if a respondent has a spouse with Māori ancestry, lives in a community with a high proportion of Māori and is involved in Māori institutions such as Kohanga Reo, they may be more likely to record sole Māori
- Some respondents may feel "more Māori" than their descendents. For example, a Māori partner in a mixed-ethnic marriage may feel "more Māori" than their children.
- For some respondents the non-Māori ancestry may be the result of rape, or the outcome of prostitution or an extramarital liaison, so is not a valued aspect of ancestry.
- Some respondents may be reflecting how others view them. It may be that those who "look more Māori" are more likely to record only Māori ethnicity. If this is correct, and if discrimination is rife is New Zealand, the sole-Māori group would be more likely to suffer discrimination by the police, landlords and healthcare providers.

- For some, recording a single ethnicity may be a political statement.
- For some Māori with European ancestry the "New Zealand European" tick box may seem as meaningless as it is to some other New Zealanders.[16] This may be why a small number of respondents tick the Māori ethnic group but also write New Zealander (Potter et al. 2003).

However, there are other respondents who choose to emphasise their mixed ancestry and/or their mixed cultural affiliations through choosing dual or multiple ethnic groups. How statistical agencies decide to record and report people of mixed ethnicity can therefore be very important. In the United States in the late 1800s, census officials created new groups for those of mixed black and white racial backgrounds based on the amount of "blood" a person received from each parent. The classifications were mulatto, quadroon and octoroon. For a variety of reasons these new racial groups did not endure and there was a shift back to single racial groups. However, more recent examples of the creation of new ethnic/racial groups can be found. In the United States, the group "Chicanos" is an amalgam of Indios, Mestizos, Spaniards and others (Collins 2001a). The group "Hispanic" is a further evolving group that includes Chicanos.

Nineteenth century New Zealand census data identified and separated out "half-castes", an official indication that a mixed Māori–European population was becoming important (Brown 1984). "Half castes" were defined as persons who reported half Māori and half European descent and were allocated to the Māori or European population according to their "mode of living". Persons reported as more than half Māori were allocated to the Māori group regardless of their mode of living. It appears that decisions about what a half caste actually was in practice and "what living as European" meant when the Māori population itself increasingly dressed, worked and housed itself along European lines, were often left up to the vagaries of individual enumerators (Brown 1984, Pool 1991). As in the United States, this category "half caste" did not endure, and from the 1926 census all persons of half or more Māori descent were categorised as Māori.

When reviewing more recent changes in American data collections, Hirschman et al. (2000) argue that, in the short term, changes in ethnic reporting to include multi-ethnic categories may influence both litigation and legislation, more particularly with regard to affirmative action policies. However, they suggest that in the long run the official construction of new ethnic categories, including blended identities, will "influence ethnic consciousness and identities in ways that cannot be imagined today" (p.391). As part of these changes they suggest that when government statistical agencies recognise multi-ethnic/racial people in official record keeping, then more people may be willing to acknowledge, or even discover, such identities. This view recognises that official data collections not only record categories but can also create them.

16 In the 1996 census, that "New Zealand European" tick box also had the alternative label "or Pākehā".

In the United States, the 2000 census was the first time that respondents could record more than one racial group. Pool (2002) notes that America and New Zealand represent two of the few examples where people can record multiple responses to the census. The decision to allow this in the United States was not without controversy, with some groups concerned that it might "dilute" the counts of some important minority groups (Bitzan 2001, Korgen 1998).

In New Zealand, while recording more than one ethnic group has been possible in the 1991, 1996 and the 2001 censuses, there have been significant changes in the questionnaires that affect how people respond.[17] The three questions have been:

- 1991: Which ethnic group do you belong to? *Tick the box or boxes which apply to you.*
- 1996: Tick as many circles as you need to show which ethnic group(s) you belong to.
- 2001: Which ethnic group do you belong to? *Mark the box or boxes which apply to you.*

The 1991 and 2001 questions are similar, but both are worded in a way that makes the question internally inconsistent as to whether people could have single or multiple ethnic identities. The main thrust of the question in both 1991 and 2001 was to ask which ethnic *group* the respondent belongs to. The use of "group" in the singular implied that only one ethnic group should be chosen. In both 1991 and 2001 the second part of the question was underneath the first part and in italics. In both 1991 and 2001 the question was ambiguous, and tends to direct people away from multiple responses.

The change in wording between 1996 and 2001 in the New Zealand censuses clearly had a major impact on responses, with 2001 data showing that the multi-ethnic response decreased from 15.5% in 1996 to 9% in 2001. This is a significant decline, when parallel indicators, such as birth data, point to the multi-ethnic group in New Zealand actually growing over this period. To ensure consistency in ethnic time series, Statistics New Zealand is recommending that the 2001 census question be repeated in 2006. In official data collections there is always a tension between consistency (in order to create long-term series) and relevance. However, some degree of consistency could still be achieved with a slight wording change to make sure dual or multiple ethnicity responses are not discouraged.

Table 1 shows the proportion of each total ethnic group who recorded just one ethnic identity.[18] It shows both changes over time and differences between groups. In both

17 The 1986 census asked a question about ethnic origin rather than ethnic group. In this census it was possible to tick more than one box for origin and/or record an additional ethnic group. This was in contrast to the 1981 census question on ethnic origin, which asked respondents for "full" origin (e.g., full N.Z. Māori). Alternatively they could record their "parts" (e.g., 1/8 European and 7/8 Māori).

18 Statistics New Zealand notes that, technically, apart from Māori, the ethnic groups listed here are not individual ethnic groups but collections of groups (Allan 2001).

1996 and 2001, people in the Māori ethnic group were the least likely to record just one ethnic identity. Of all those people who recorded Māori as one or more of their ethnic groups, only 56% recorded only Māori in 2001.

Table 1 Single Ethnicity Responses by Each Ethnic Group, 1991-2001

Ethnic group (total responses)	1991	1996	2001
European	94.6	82.7	89.9
Māori	74.4	52.2	56.0
Pacific peoples	77.9	61.4	67.5
Asian	87.8	81.5	88.1
Other	68.0	59.9	75.1

Source: Lang (2002) based on census data.

Note: People that "only identify with that ethnic group" would include the following examples: a Pacific person that self-identified as both Samoan and Cook Island ethnic groups; an Asian person that self-identified as both Chinese and Korean ethnic groups; and a European person that self-identified as both New Zealand European and Dutch ethnic groups.

The high number of individuals who affiliate with Māori and one or more other ethnic group reflects both historical and ongoing ethnic intermarriage in New Zealand. Data from the 1996 census show that around half of partnered Māori men and women have a non-Māori partner (Table 2). The rate of out-marriage is even higher among those with formal qualifications (Callister 2004).

Table 2 Percentage of Partnered Māori Men and Māori Women with a Māori Partner, 1996

Age of Māori men and women	% of Māori men with a Māori partner	% of Māori women with a Māori partner
20–24	56	55
25–29	50	51
30–34	49	51
35–39	50	50
40–44	50	48
45–49	51	49
50–54	52	52
55–59	55	56
60–64	61	54

Source: Census of Population and Dwellings, 1996

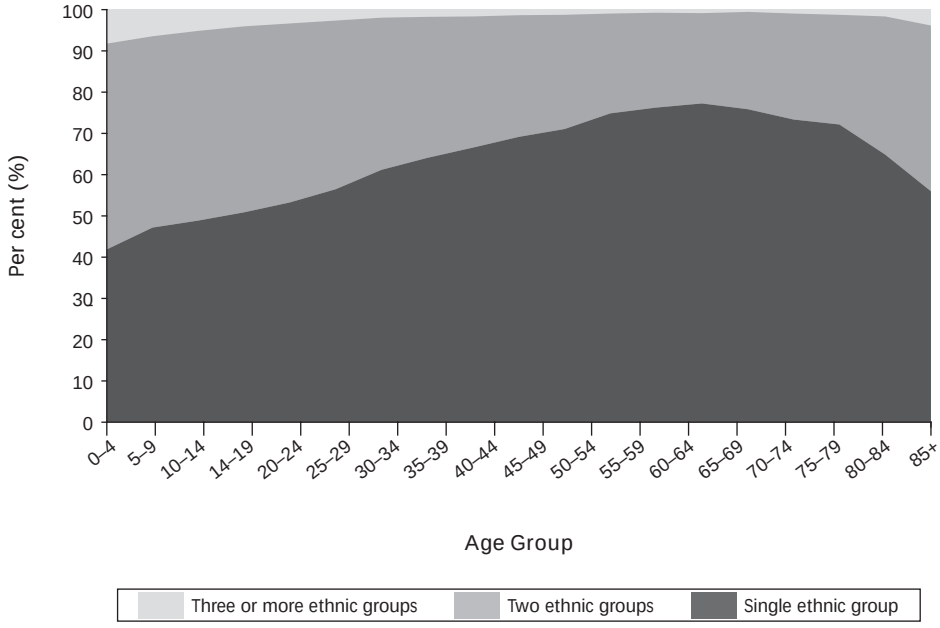
Figure 1 shows the proportion of the wider Māori ethnic group who are recording dual or multiple ethnicities. It also indicates that affiliation to one or more ethnic groups also varies by age. In the younger age groups less than half the Māori ethnic group are sole Māori. However, other research indicates that the allocation of ethnicity to children is

not a straightforward process (Callister 2003). For example, in 2001, 36% of children under 12 who lived in a two-parent household and who were recorded as having sole Māori ethnicity did not have both parents record sole Māori ethnicity. Combinations where either the mother or father was sole Māori and their partner sole New Zealand European totalled 17%. The same census data also show, based on the recorded ethnicity of parents, that a slightly higher proportion of children could be recording a combination of Māori and other ethnic groups. These data suggest that boundaries between the sole, dual or multi-ethnic groups are fluid.

Although a higher proportion of the Pacific peoples ethnic group recorded only one ethnic group, Figure 2 shows a similar age-related pattern to that of Figure 1.[19]

While much lower than for Māori and Pacific peoples, the proportion of young people in the Asian ethnic group who list two or more ethnic groups is not insignificant. For example, in 2001, 28% of Asians and 23% of Europeans under the age of five recorded, or more likely had recorded for them, more than one ethnic group. Again, as this is based on a total count, there is some overlap between all groups.

Figure 1 Percentage of Total Māori Ethnic Group by Number of Ethnic Affliations and Age, 2001

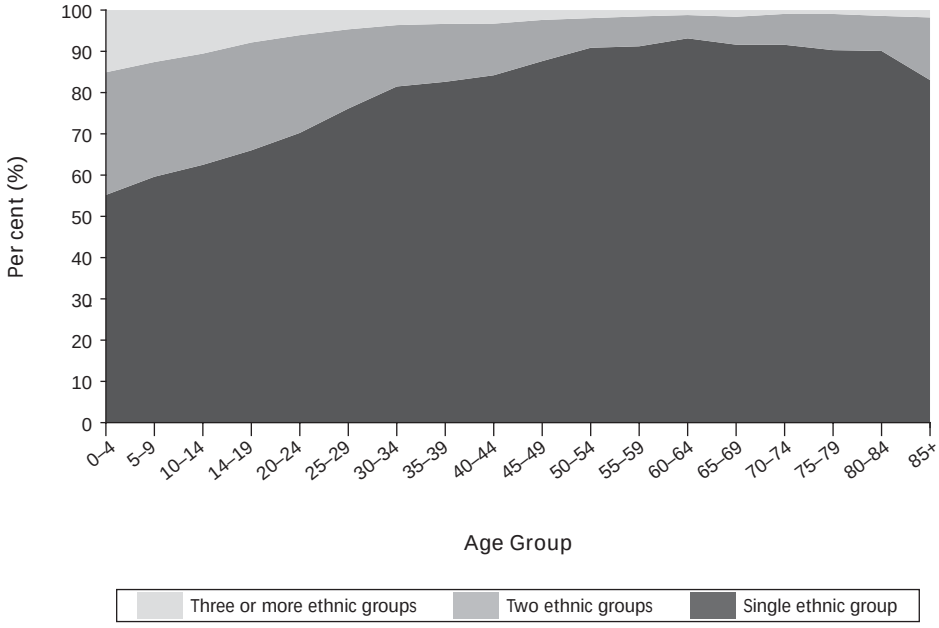


Source: Statistics New Zealand, Census of Population and Dwellings

19 Due to intermarriage between Māori and Pacific peoples some respondents will be recorded in both Figure 1 and 2.

When only one ethnic group was collected, reporting membership of ethnic groups was straightforward. When more than one group started to be collected, then reporting became more complex. In the early period during which more than one group was recorded, Statistics New Zealand (as well as most government agencies and researchers) relied primarily on the prioritisation of ethnic groups in order to simplify the presentation of the data. Under this system, Māori had priority coding, followed by Pacific peoples, then Asian, other ethnic groups besides European, followed by "Other European" and, finally, New Zealand European (Allan 2001:18). This prioritisation system meant that, for example, if a person recorded himself or herself as belonging to both Māori and Samoan ethnic groups, they were classified as belonging just to the Māori ethnic group.

Figure 2 Percentage of Total Pacific Peoples Ethnic Group by Number of Ethnic Affiliations and Age, 2001



There were both advantages and disadvantages in this process of prioritisation. The one major advantage was that ethnic counts equal counts of the total population. However, this advantage was greatly outweighed by the disadvantages. The disadvantages were that (1) there is no underlying logic to the order of prioritisation, (2) it is not ethnically neutral (that is, it elevates one ethnic group over another), (3) it undermines the preferences of people, and (4) it biases population estimates. However, it should be noted that the process of prioritisation has only become problematic in recent years, with the growth in the number of people reporting more than one ethnic group. When prioritisation of ethnic responses was first introduced, multiple reporting

of ethnicity was relatively uncommon. Thus, prioritisation of the responses had little impact on the resulting statistics.

A number of other options were suggested when Statistics New Zealand was considering the reportage multi-ethnic data responses as part of its *Review of the Measurement of Ethnicity*, as follows.

- Let people choose their own prioritisation. The advantage of this option is that it explicitly values people's preferences. It is ethnically neutral but adds complexity for respondents. Its disadvantage is that it forces people to make choices between groups and, in this sense, nullifies the subjective self-identification criteria. Respondents have to subjectively self-identify with one group rather than having the right to equally identify with several.

- Publish total counts. There are some problems with the total count solution. First, the total counts sum to more than the population, since multi-ethnic people get counted in all the groups to which they belong. This can be confusing. Second, multiple ethnicity remains hidden in total count data. Ethnic groups with higher proportions of multi-ethnic people remain favoured by total counts, so total count data are still ethnically biased, if less so than by the current prioritisation.

- Randomly allocate prioritisation. This option would involve random allocation of multi-ethnic people to a single ethnic category. As an example, people who were both Māori and European would have half a chance of being allocated in either box. People who are Māori, European and Samoan, would have a 1/3 chance of being in any one of three boxes. This approach has the advantages of being simple, readily understood, and imposes no additional burden of complexity on respondents. It is also ethnically neutral. It still undermines the preferences of people, but less than the current method or any method that is biased in favour of a particular ethnic group. Using random allocation, the total sum of all ethnic groups adds up to the population.

- Use fractional ethnicity model (see Gould 2001 2002). This would count the number of times each ethnicity was claimed. However, unlike total responses options, the response of each individual would be given equal weight, a total value of one for his/her ethnicities. This would be achieved by adding to each ethnicity a coefficient equal to the reciprocal of the number of affiliations claimed. Thus, a respondent ticking only Māori would be coded (1/1) Māori; but a respondent ticking both the Māori and the NZ European options would be (1/2) Māori plus (1/2) NZ European. The total of the responses would then equal the total population.

- Do not prioritise ethnicity. This option is attractive in terms of neutrality and the principle of self-identification. The approach would be to list all permutations of single and multi-ethnicity individuals. It is ethnically neutral and respects people's self-identification. Potentially it would lead to a proliferation of group identities that hinders presentation of aggregate statistics, and this proliferation would be likely to increase over time as new migrant groups establish more of a presence in New Zealand.

In relation to letting people prioritise their own ethnicity, it would be possible to have two ethnicity questions in surveys. The first would allow individuals to affiliate with more than one ethnic group. A second question could then ask these respondents to nominate one group they affiliate most strongly with. This is the approach used by Waikato University in its *New Zealand Women: Family, Employment and Education Study* (Kukutai 2001). Kukutai (2003) uses these data to show that, among those who recorded Māori plus one or more other ethnic group, about two-fifths claimed Māori as their primary identity. About the same number claimed a non-Māori identity and the remainder had no leaning either way. While it would be possible to include two ethnicity questions in social surveys to allow people to self-prioritise their own ethnicity, this would be problematic in administrative data collections, resulting in inconsistency in ethnicity data across official statistics.

Statistics New Zealand is recommending abandoning its practice of ethnic prioritisation and it is also not recommending having two questions so individuals can prioritise their own ethnicity. Instead, it is recommending an expansion of the reportage of non-prioritised multi-ethnic data. They suggest that the standard output for ethnicity data be single and combination responses as well as total response data. Single/combination output places each person in a mutually exclusive category; that is, each person is allocated to a single category, based on whether the person has given either one or more than one ethnicities. For example, a person who gave only "Māori" as their ethnic group would be included in the "Māori only" category. A person who gave "Māori" and a "Pacific Peoples" ethnic group would be included in the "Māori/Pacific Peoples" category.

Statistics New Zealand note that level-one single/combination output can be used where there are sufficient data, such as in the five-yearly Census of Population and Dwellings and in large-scale administrative data sets. Statistics New Zealand is recommending that the following single and group combinations be used:

- single-ethnic group: European, Māori, Pacific Peoples, Asian; and two new groups, MELAA (Middle Eastern, Latin American and African) and Miscellaneous
- two-ethnic groups: Māori/European, Pacific peoples/European, Māori/Pacific peoples, Asian/European, two groups not elsewhere included
- Three-ethnic groups: Māori/Pacific Peoples/European, three groups not elsewhere included.

For single/combination output at level one (European, Māori, Pacific Peoples, Asian, MELAA, Miscellaneous), a person who gives two or more responses that fall into the same level-one category are counted only once. For example, English and Scottish will be counted in the "European only"; Samoan and Tongan will be counted in the "Pacific peoples only"; and Filipino and Khmer will be counted in the "Asian only" category.

The groups MELAA and Miscellaneous replace the group "Other". MELAA is the abbreviation for the level-one group "Middle Eastern, Latin American and African", while a major component of the Miscellaneous group will be those people recording "New Zealander" type responses.[20]

Table 3 indicates the size of the main single-group, two-group and three-group ethnic combinations in 2001 (the new groups MELAA and Miscellaneous are not included). It also shows total ethnic group counts.

Table 3 Main One-Group, Two-Group and Three-Group Census Ethnic Combinations, 2001

Ethnic combination	Total of all age groups	% of total	Number of children under five years	% of total
Sole European	2,610,408	72.8	150,912	57.8
Sole Māori	294,726	8.2	28,275	10.8
Sole Pacific peoples	165,645	4.6	18,090	6.9
Sole Asian	213,561	6.0	13,197	5.1
Māori / European	193,500	5.4	29,508	11.3
Māori / Pacific peoples	15,606	0.4	3,867	1.5
Pacific peoples / European	30,018	0.8	5,448	2.1
European / Asian	12,711	0.4	2,940	1.1
Māori / Pacific / European	14,103	0.4	4,143	1.6
Total specified	3,586,734	100.0	261,039	100.0
Total European ethnic group*	2,871,432	80.1	195,177	74.8
Total Māori ethnic group*	526,281	14.7	67,560	25.9
Total Pacific peoples ethnic group*	231,801	6.5	32,775	12.6
Total Asian ethnic group*	238,179	6.6	18,375	7.0
Total other ethnic group*	24,993	0.7	2,502	1.0
Total count	3,892,686	109.0	316,389	121.0

*This is the total count of all individuals who recorded the specified ethnic group as one or more of their ethnic groups.

20 For a parallel paper on how "New Zealander" responses have been handled in the past, see Callister (forthcoming).

While the option of listing and analysing all major ethnic combinations is feasible with a large-scale data set such as the census, this option becomes more problematic with smaller surveys. In its Review of the Measurement of Ethnicity, Statistics New Zealand notes:

> Although it is not considered appropriate for Statistics New Zealand to continue to have a statistical standard that includes prioritisation, it may be useful for agencies to consider whether there is a viable and agreed prioritisation system that could be maintained by one agency on behalf of others for their use. Data could then be supplied as customised purpose-specific output. (Statistics New Zealand 2004:13)

COMPLEX ETHNICITY, INTERMARRIAGE AND SOCIAL POLICY

In a paper on challenges to ethnic identities, Waters (2000) notes that with continuing migration the future composition of the United States population will reflect how new immigrants and their children identify themselves, how much intermarriage there is, and how children of ethnic intermarriage identify themselves. She also notes that history should make us cautious about ethnic projections. She observes that in the 19th century the Irish were seen as a separate race from other Europeans. At this time, the stereotype of the Irish population was of a group with high rates of crime, a lack of education, and negative family values. Waters suggests that if population predictions had been made in the early 20th century, the growth in Irish, along with Southern and Central Europeans, would have made white Protestants a future minority. Yet, according to Waters, such predictions failed to take into account both the decline in ethnic boundaries between Europeans and the rise in education and income among Irish and other groups. She comments that, "These social and cultural changes have interacted with ethnic intermarriage to produce an ethnic fluidity that would have been unthinkable then" (p.1736).

Both the fluidity of ethnic/racial/cultural boundaries and the related problems of classification systems can be seen in media discussions in the United States (e.g. Rodriguez 2003). In an article in the *New York Times* (Clemetson 2003), the headline announces that Hispanics now outnumber blacks. The political and social implications of this shift are then discussed. However, later in the article it is noted that the number of Americans who declared themselves as black "in combination with one or more other races" is actually slightly higher than the overall figure for Hispanics. This type of article illustrates the increasing problem faced by demographers, policy makers and the media in accurately counting and reporting the current United States population and in making population projections. The fluidity of ethnic boundaries is now starting to be touched upon by New Zealand journalists and media commentators (e.g. Butcher 2003, Laidlaw 2003, Welch 2003).

As shown, New Zealand has a long history of high rates of intermarriage between Māori and non-Māori. As also discussed in the first section of the paper, ethnic choices for individuals reflect a complex mix of factors, including culture and ancestry, so intermarriage potentially brings together, in possibly even more complex ways, cultural and ancestral mixes within a family setting. Historically, there have been and continue to be, at least three potential impacts of this intermarriage: intergenerational genetic mixing, intergenerational cultural mixing and intergenerational resource mixing.

As an historical example of intergenerational genetic mixing, O'Regan (2001:135) notes that early in the colonisation of New Zealand, "Kāi Tahu leaders were quick to recognise the increased resistance to European illnesses in those of mixed descent". While of some interest to health researchers and policy makers, the possible ongoing effects of genetic mixing are beyond the scope of this paper.

Cultural mixing can and does occur with or without intermarriage. In a discussion of biculturalism in New Zealand, Sharp (1995:118) notes that, "although the autonomy and incommensurability of cultures is asserted often enough, cultures are actually leaky vessels, created, renewed and transformed in endless contact with others". While this contact with others can occur in a variety of ways, intermarriage provides a particularly intense and intimate site for potential cultural exchange.

Ranginui Walker (1997:81), in a review of "gaps" in New Zealand social science, identified the need to understand the impacts of marriage between Māori and non-Māori as one of the key areas needing attention. A common view is that intermarriage will lead to a dissipation of cultural practice of the partner who is from the minority culture. However, outcomes are likely to be far more complex than this in New Zealand. In a history of changing ideology in relation to the "counting of Māori" in the Census of Population and Dwellings, Riddell (2000) demonstrates that historical intermarriage between Māori and non-Māori has not, as some commentators had predicted, resulted in the disappearance of a once "dying race". Instead, Riddell asserts that intermarriage has added directly to the numbers of those who can define themselves as Māori and of Māori descent.[21] In addition, not all intermarriage is between Māori and the dominant New Zealand European group. There is also intermarriage between Māori and Pacific peoples and Māori and people from the Asian ethnic group.

The data on the Pacific peoples group suggest a relatively high rate of intermarriage (Didham 2004). The proportion of young Asians recording more than one ethnic group also indicates that outmarriage by Asians in New Zealand is not insignificant. Moreover, given trends in the United States, it can be expected that recent Asian

21 However, Riddell fails to acknowledge that many Māori are also recording other ethnic groups as well.

migrants will increasingly intermarry with other New Zealanders, including Māori and Pacific peoples.[22]

Dual and multiple ethnicity, one potential result of intermarriage, affects ethnic projections and, in turn, ethnic projections affect discussions about social policy. Predicting the future ethnic mix of New Zealand is fraught with difficulties. No one actually knows how people will record their ethnicity in 20 or 50 years time. The political and social environment may change substantially, creating new incentives or disincentives for recording particular ethnic groups. Statistics New Zealand does make projections based on assumptions about mortality, migration and how children of ethnic intermarriage will have their ethnicity recorded. However, past ethnic population projections in New Zealand have been particularly problematic because of the use of ethnic prioritisation, and they potentially remain so because of the use of total counts. Based on total counts, Māori, Pacific and Asian populations have been forecast to increase their shares of the population. As an example, the Māori share of the total population is projected to rise from 15% in 2001 to 17% in 2021, while the Asian share will go from 7% to nearly 13% (Statistics New Zealand 2003a).[23] Based on the previous system of prioritisation and an earlier set of projections, Salmond (2003:4), in a keynote speech to the 2003 Connecting Policy, Research and Practice conference, suggested that "by 2050, 57% of all children in New Zealand will be identified as Māori or Pacific Islanders".

Chapple (2000) highlights a problem of such prioritised (or total count) single-group ethnic projections. He notes that Te Puni Kōkiri (2000:14) have calculated youth dependency rates for Māori by dividing the number of Māori children by the number of Māori adults. Te Puni Kōkiri argue that this "provide[s] a crude indication of how many people in the core working-age groups may be supporting those in age groups that require financial assistance". As Chapple points out, one problem with the calculation is that many children who have been prioritised in the Māori category have non-Māori parents. While a minority of New Zealanders have Māori ancestors, in the future far more will have descendents who can claim Māori ancestry and may want to claim Māori ethnicity. Many of the total count Māori (and Pacific peoples) who will be working in the coming decades to support a predominantly Pākehā retired population will, in fact, be supporting, via the tax system, a Pākehā parent or grandparents or their Pākehā uncles and aunts. Some of these elderly Pākehā will also receive direct financial support from their Māori (or Pacific peoples) descendants.

22 Rodriguez (2003: 96) notes that, in the United States, while only 13% of foreign-born Asians marry non-Asians, 34% of second-generation and 54% of third-generation Asian Americans do.

23 Based on the series 6 projection.

Much of the projected growth in the proportion of the population who are ethnically Māori is a consequence of the very high rates of outmarriage by Māori and the (implicit) allocation of the children who are recorded as having more than one ethnic group to the Māori group via either ethnic prioritisation or total counts. Commentators have used these single-group ethnic projections to predict a "browning" of New Zealand (e.g. Kiro 2002). More helpful is the concept of a complex emerging society, where a significant number of people have dual or multi-ethnic ancestry, dual and multiple ethnic affiliations and, often, mixed cultural practices.

For example, there is often room for policy-related research to be expanded to acknowledge the dual or multi-ethnicities, and the mixing of cultural practices, rather than focusing on groups as being very separate and having distinct cultural characteristics. For example, Robinson and Williams (2001), in their paper "Social capital and voluntary activity: Giving and sharing in Māori and non-Māori society", portray distinct differences between the way Māori and non-Māori individuals operate in terms of giving and sharing, but do not consider the potential behaviour of people who either acknowledge they span both ethnic groups through recording being multi-ethnic in surveys, or who simply exhibit a mixture of behaviours through adopting some of the cultural norms of other groups. As already discussed, one potential site of adoption of cultural practices from another group is within ethnic intermarriage.

Similarly, Tolich (2002), in his article "Pākehā 'paralysis': Cultural safety for those researching the general population of Aotearoa", divides researchers into two distinct groups, Māori and Pākehā. Within his discussion of who can research Māori samples, it would be interesting to include some of the additional complications around "who can research whom" when some in the sample record both Māori and European ethnic groups or Māori and Pacific peoples, some record Māori ancestry but not Māori ethnicity, or some respondents simply call themselves "New Zealanders", including those 12% of sole New Zealanders who also recorded Māori ancestry in the 2001 census (Potter et al. 2003). This issue of who can research whom becomes even more complex when studying ethnic intermarriage where both partners could record a range of ethnic groups.[24]

Over and above the guarantees provided by the Treaty of Waitangi's principles of partnership and participation, the concept that there are two distinct world views strongly supports the idea that a Māori perspective is needed in research, policy making and service delivery. Past and present ethnic intermarriage, dual and multiple ethnicity, and the leaky boundaries of culture do not undermine the need for a range of perspectives in all these areas. However, they do mean that "both worlds" will, at

24 There is a wider issue of whether there should be any restrictions on researchers as to whom they can research. However, this is beyond the scope of this paper.

times, influence what is commonly seen in policy debates as "a Māori perspective". Intermarriage, dual and multiple ethnicity and other potential ways of sharing cultural values will also, of course, sometimes influence what might be seen as a "Pākehā perspective". A person recording neither Māori ethnicity nor ancestry may have a Māori partner, Māori children and a Māori surname, be fluent in Te Reo, as well as being heavily involved in Māori institutions such as Kohanga Reo. They may have some "Māori ways of knowing" through embracing and living the culture. They are also likely to have a particularly keen interest in how their Māori children are treated, or mistreated, by society.

However, even if individuals could be divided into two distinct ethnic groups with distinct cultural perspectives, making some types of service delivery culturally appropriate when families rather than individuals are considered presents additional challenges. For example, the Family Court is investigating ways to become more sensitive to the needs of Māori families. This is appropriate and overdue. Yet many of the couples in strife will consist of an individual who identifies himself or herself as ethnically Māori and the other who does not. For example, while one parent may feel they "have no exclusive rights to possession of their children – they hold them in trust for the whānau, and the wider hāpu and iwi" (Law Commission 2004:3) – the other parent may not. Differences in cultural values could even be part of the reason for separation for some couples. Similarly, reducing Māori infant mortality is an important goal. Yet, a policy of "by Māori for Māori" may not always be appropriate in those situations where the mother of the Māori infant identifies herself as ethnically non-Māori. Reflecting the difficulties of defining families rather than individuals by ethnic group, Statistics New Zealand (2004) has already abandoned the ethnic classification of both households and families.

Another critical policy question is whether the new complex ethnic data will help in identifying factors that influence disadvantage. Researchers in New Zealand already recognise considerable heterogeneity among ethnic groups, including Māori and Pacific peoples. For example, Crothers (2003) demonstrates significant variation within the wider Māori ethnic group. In terms of "gaps" between Māori and non-Māori, he notes that "apparently stark initial differences are often found to fade into less striking hues on closer and more sophisticated examination" (p.127). Similarly, Meredith (2000) discusses complexities of identity among Māori, including noting that urban Māori are not a homogeneous group.

There has already been some limited use made of multi-ethnic responses when analysing disadvantage among the wider Māori ethnic group in New Zealand.[25]

25 In contrast, little attention has been given to dual ethnicity among the wider Pacific peoples ethnic group when investigating disadvantage among Pacific communities.

Kukutai (2003) shows that individuals who describe themselves as mixed Māori and non-Māori, and who identify more strongly with the latter, tend to be socially and economically much better off than all other Māori. In contrast, those who identify more strongly as Māori, had socio-economic and demographic attributes similar to those who only record Māori as their ethnic group. Based on these data, Kukutai argues that the key differences within the wider Māori ethnic group are between those who identify primarily as non-Māori and all others. Thus, she suggests, social policy makers should not put much weight on the two categories "Māori only" and "Māori plus other ethnic group(s)".

In an earlier paper, Chapple (2000) divided the wider Māori ethnic group into two groups, "sole Māori" and "mixed Māori", and proposed that the disadvantage among Māori is concentrated in a particular subset: that is, those who identify only as Māori, have no educational qualifications and live outside of major urban centres.[26] While not a direct output of the research, the "gap" between the life expectancy of the wider Māori ethnic group and those reporting sole Māori ethnicity suggests that, for reasons that are unclear, health disadvantages are concentrated among those who identify only as Māori (Ajwani et al 2003). As Baehler (2002) notes, the idea that a particular subgroup are "truly disadvantaged" parallels the work of Wilson (1987) in the United States.[27] While Kukutai (2003) challenges that it is sole-Māori ethnicity recorded in the data collections that is a critical factor for targeting, her research nevertheless supports the concept that there is a subgroup of the wider Māori ethnic group that faces particular disadvantage.

These exploratory studies suggest that analysing complex ethnicity data may help provide a richer understanding of what factors may play a part in creating disadvantage within wider ethnic groups. But they also warn us that focusing too much on what are still relatively simple measures of ethnicity, as well as putting too much weight on just ethnicity, can be problematic. A more complex understanding of ethnicity, such as provided for Māori by the Te Hoe Nuku Roa research project, is needed (Durie 1995).

With respect to the development of an affirmative-action type of policy, or policies designed simply to increase representation in organisations, using ancestry-based measures is one possible way to get around the complexities raised by ethnic

26 "Sole Māori" are those who recorded only Māori as an ethnic identity. These are usually described as "sole Māori". "Mixed Māori" reported Māori as one ethnic identity, but also recorded a further identity (or identities). This is, of course, a form of prioritisation, given that the other ethnicity or ethnicities could have been given priority. For example, a person who recorded both European and Māori ethnic groups could be labelled "mixed European".

27 In the US, in recognition of the heterogeneity within broad groups, there is also increasing interest in identifying subgroups of the "white" population who face disadvantage (Bhopal 2002).

intermarriage, self-defined ethnicity and multiple ethnicity. Ancestry-based measures treat all people with some particular ancestry, whether provided by a single ancestor many generations ago, or by both parents, as being equal. Physical characteristics or even cultural values would not be relevant. Ancestry is also generally easier to verify than ethnicity, at least through matrilineal lines.[28] However, as such, if the policies are designed to reduce disadvantage, they have the major drawback that not all individuals within a descent-based group will face discrimination and disadvantage. If not based on a wider measure of deprivation, the "truly disadvantaged" may continue to be disadvantaged.

Recent examples of targeted government programmes for individual Māori emphasise ancestry, although cultural ties, such as through involvement in Māori communities and culture, are also sometimes seen as important (e.g. SPEaR 2003). Māori educational scholarships, whether provided by private schools such as King's College, Statistics New Zealand or the Ministry of Health, have also generally been based on descent rather than self-defined ethnicity (Butcher 2003:39, Ministry of Health 2003). While social scientists and policy makers primarily analyse data based on the cultural construction of ethnicity, when resources for individuals are at stake, biological links, through ancestry, tend to come to the fore.[29]

However, some targeting has been based on self-defined ethnicity measures. For example, additional funding can be provided to some taxpayer-funded institutions, such as schools or health providers, based on ethnic data rather than ancestral measures. For instance, the school decile measure includes single-group Māori and Pacific peoples ethnicity variables. Such single-group data force people to self-prioritise their ethnicity. If Statistics New Zealand's recommendations for collecting and reporting multi-ethnicity data are accepted by agencies, such as the Ministry of Education and the Ministry of Health, this will create new opportunities for analysing disadvantage, but create more complexity in possible targeting.

28 The Law Commission (2004) notes that many New Zealand children have no official record of their genetic lineage. They also note a number of overseas studies that show, through advances in DNA testing, that a small but significant number of fathers thought to be the biological parents of the children they are raising are, in fact, not.

29 In terms of Treaty settlements, there is another layer to ancestral links and access to resources. Proven ancestral links to iwi or hapū are generally needed. This issue was the subject of much debate around the allocation of fisheries assets, with the result that a fund will be set up for Māori who do not identify or connect with an iwi. At the 2001 Census, of those respondents who indicated Māori ancestry, 25% either did not know the name of their iwi, or indicated they were affiliated to an iwi but did not give a response that could be identified as a specific iwi.

CONCLUSION

Increasingly, both physical and social scientists are rejecting the concept of pure races. This is because phenotypic variations between races are swamped by phenotypic variation among races. In New Zealand, we have gone further than many other countries and have formally rejected the concept of race when collecting data and undertaking research. Yet, ideologically, the concept of race remains strong, and ethnicity and race are still often seen as being the same. In addition, there are some who consider that ancestry cannot be separated from ethnicity. Not surprisingly, Collins (2001a:13) has noted, "analytical understanding of ethnicity is one of the weak spots in the social sciences".

Throughout the world concepts of ethnicity are undergoing continuous transformation. The difficulty in finding a universally accepted definition of ethnicity can be seen in national and international research literature on ethnicity, as well as submissions to Statistics New Zealand's regular reviews of ethnic statistics.

In New Zealand, official definitions of ethnicity now generally revolve around culture. Yet, for many New Zealanders, factors including nationality, descent, country of birth, religion and the expression of distinctive physical characteristics (including skin colour) continue to influence the definition of ethnicity among individuals and groups. Issues of ancestry come to the fore when ethnic classifications determine resource allocations, and there is an ongoing debate about how important descent is in health research. It is also becoming clear that with regard to some key influences on ethnicity, such as culture, there are as strong within-group variations as there are across-group differences.

Like the concept of pure races, the concept of pure ethnic groups is being substantially undermined. Social scientists need to apply the same critical methodologies and evidential criteria to the concept of ethnicity as they have previously applied to race. One simple step is to increasingly look at distributions within ethnic groups, rather than rely on simple averages.

This paper has explored some aspects of collecting and reporting on ethnicity data. It suggests that some of the ways in which Statistics New Zealand has been collecting and reporting ethnic data have been outdated and have disguised the increasing diversity and complexity of New Zealand society. Statistics New Zealand recognises many of the problems with ethnic data and, as a result of its latest review of ethnicity statistics, has suggested some important changes in how data are collected and reported. It has also recommended further long-term research on many aspects of the collection of ethnicity data.

New Zealand has been one of the first countries to allow respondents to choose more than one ethnic group when completing the Census of Population and Dwellings. Although changes in questions over time have generated differing proportions of multi-ethnic individuals, it is clear from the data that the group who affiliate with more than one ethnic group is significant. Yet while the data and, often, personal experience show that New Zealand is becoming more of a multi-ethnic society, we have in the past lacked confidence when dealing with multiple ethnic identities. This type of narrow thinking was encouraged in recent years by the system of ethnic prioritisation used by Statistics New Zealand and by the continued recording of single ethnic groups in many surveys.

When more than one ethnic group response was first collected in the Census of Population and Dwellings, Statistics New Zealand introduced a system of prioritising the ethnicity of multi-ethnic people. Increasingly, it is recognised that when using large data sets, ethnic prioritisation hides, rather than brings to the fore, important social facts. Statistics New Zealand has now abandoned this practice. Instead, it proposes that ethnic reportage from large data sets, such as the census, include both total responses in each ethnic group and counts of multi-ethnic people. The most important combination is Māori/European, but the combinations Māori/Pacific peoples and Pacific peoples/European are also significant. It is likely that researchers and policy analysts will take some time to adapt to using the new multi-ethnic groups.

The rise of a multi-ethnic New Zealand, whether fully acknowledged or not, provides a major challenge for the design of social policy aimed at helping overcome disadvantage among particular groups. New Zealand ethnicity data needs to be carefully scrutinised by policy makers, and the media, in order to better assess what factors may result in individuals facing disadvantage and how policy should be designed to overcome such disadvantage. Analysing more complex multi-ethnic data, alongside a range of other socio-economic data, is likely to help in this process. However, while the new multi-ethnic output potentially provides a richer understanding of ethnicity in New Zealand, it will also add new complexities to any targeting of social policy by ethnicity.

Finally, increasing numbers of dual-ethnicity and multi-ethnicity New Zealanders in the longer term adds complexity to discussions of partnership under the Treaty of Waitangi. Concepts of partnership are more straightforward if the partners are separate, impermeable ethnic groups. Yet, intermarriage means that, for a significant proportion of New Zealanders, ancestral roots include representatives of both partners. While statistical reportage that creates impermeable binary groups may be useful for political purposes, they disguise the true complexity of New Zealand society. For many people, ethnicity is increasingly multifaceted and fluid. This suggests that in New Zealand, as in other countries, there is a need for ongoing debate as to how ethnicity statistics should be collected, aggregated, reported and analysed, and how they should be used in political debates and in policy making.

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A high rate of ethnic intermarriage may point to open social groups, but if mixed marriages are more likely to break up, such a conclusion would need further study. In the past decades, researchers have described patterns of intermarriage, examined individual variations in intermarriage, and assessed changes in intermarriage over time.Â Intermarriage can be calculated for the stock of marriages at a given point in time (prevalence measures) or for people who marry in a given period of time (incidence measures). Incidence measures are generally preferable, in particular if one analyzes trends.Â To describe intermarriage, various measures have been used. To explain these, it is helpful to consider the following marriage table . Click to view. Ethnicity is a key variable in social science research and policy making. Yet, for many individuals in New Zealand society ethnicity is a fluid characteristic. Against a backdrop of historical debates about the measurement of ethnicity, this paper initially explores some of the recent changes that have taken place in the recording of ethnicity in the New Zealand Census of Population and Dwellings. There is particular emphasis on how individuals belonging to more than one ethnic group have been recorded and reported in official publications.Â @inproceedings{Callister2003EthnicityMI, title={Ethnicity measures, intermarriage and social policy}, author={Paul Callister}, year={2003} }. Paul Callister. Published 2003. Political Science. Because the policy reform affected marriage behavior of immigrants from different countries differently, it generates exogenous variation in marriage behavior that can be used for identification of the causal effect of immigrant marriage on education outcomes of the children of immigrants, in particular on their dropout rate before the end of compulsory schooling.Â Frequent intermarriage is one of the strongest signals of social assimilation by an ethnic group with immigrant origins (Gordon, 1964; Alba and Nee, 2003). In addition, intermarriage is a key determinant of weakened and/or multiple ethnic attachments for future generations of the group (Hout and Goldstein, 1994; Perlmann and Waters, 2007).