



# Fixed not fluid: European identification in the Aotearoa New Zealand census

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## Abstract

Social scientists have long treated ethnicity as socially constructed and historically contingent, rather than fixed at birth and transmitted across generations in a linear fashion. A growing body of work has theorised and examined how individuals construct and express their ethnic identities in a variety of contexts and at different life course stages. Most studies have focused on Indigenous and ethnic minority groups; studies focusing on the experience of majority or dominant groups are rare. Utilising a unique longitudinal census dataset that links whole census microdata in successive censuses, this article adds to the literature by empirically measuring the relative fluidity or rigidity of majority European ethnic identification over several decades. Analysing four sets of linked census pairs, we find that European patterns of self-identification diverge significantly from those of Māori and ethnic minority groups. Individuals who identify solely as European in one census are far less likely to change their ethnic self-identification in the next census. These findings suggest that affiliation to dominant ethnicity operates in ways that are meaningfully different to other ethnic groups, indicating key cross-category differences in how majority ethnicity is socially constructed.

**Keywords** Ethnic identification · Ethnic response change · Majority ethnicity · New Zealand · European

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## Introduction

Social scientists have long treated ethnicity<sup>1</sup> as socially constructed and historically contingent, rather than fixed at birth and transmitted across generations in a linear fashion (American Anthropological Association, 1998; Anderson, 1991). Numerous studies have theorised and examined how individuals express their ethnic identities in a variety of contexts and at different life course stages. Collectively, this research has shown that how individuals perceive and report their ethnicity is not simply a matter of personal identity but is also constituted through social and political processes that operate at the institutional and societal levels (Saperstein & Perner, 2012; Saperstein et al., 2013; Song, 2003). These processes shape the significance and meaning of ethnicity and the degree to which ethnic boundaries between groups are starkly defined or more fluid. In the United States, for example, the long defunct ‘one drop’ rule continues to contain the ethnic designation options available to children of White-Black intermarriage (Roth, 2005). The population growth of Indigenous Peoples in Canada (Guimond, 1999; Guimond et al., 2015), Australia (Biddle & Crawford, 2015), Aotearoa New Zealand (Kukutai & Rarere, 2019) and the United States (Liebler & Ortyl, 2014) has been attributed, in part, to de-stigmatisation and a greater willingness to record Indigenous heritage. At the same time Indigenous Peoples in these countries remain grossly overrepresented on nearly every indicator of economic disadvantage, social exclusion, and ill health (Anderson, 2016). As nation states diversify, ethnic inequalities increase and the demographic dominance of white majorities wanes, Fredrik Barth’s (1969) argument that ethnic boundaries endure in the face of growing diversity, remains relevant.

The population census is an important context for studying ethnic boundaries vis-a-vis patterns of ethnic classification and self-identification. Studies have shown that how individuals report their ethnicity can change over time or between censuses, reflecting shifts in broader societal structures and discourses, government and institutional classification practices, and individuals’ contexts and self-perception (Hochschild and Powell, 2008; Kertzer & Arel, 2002; Morning, 2008; Saperstein et al., 2013). Most studies have focused on ethnic response change for ethnic minorities and Indigenous Peoples (Caron-Malenfant et al., 2014; Eschbach, 1993; Pettersen & Brustad, 2015; Robitaille et al., 2010). Others have taken a more methodologically-driven analysis of change in ethnicity reporting across entire national populations (Liebler et al., 2017; Perez & Hirschman, 2009; Simpson & Akinwale, 2007; Simpson et al., 2016). Despite this growing literature, empirical studies of the ethnic identification of dominant White groups are rare (for a notable exception, see Waters, 1990). This is perhaps unsurprising: dominant groups, by their very nature, tend to be the ethnically unmarked ‘norm’ (Doane, 1997; Fenton & Mann, 2010). Yet, in the context of growing White identity politics and nationalism (Jardina, 2019; Kaufmann, 2018) and the enduring power of White supremacy (Bonilla-Silva,

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<sup>1</sup> A wide range of concepts are used to define this form of cultural, group-based difference, from the biological frame of phenotype or race, to origins, language, or culture. We use ethnicity as an umbrella term for distinguishing such socially defined groups.

2001; Hage, 2012), a better understanding of the nature and form of White ethnic boundaries is both timely and needed.

Focusing on the dominant European population in Aotearoa New Zealand, and using a unique dataset of linked census microdata, we explore the following questions: How permeable (or, alternatively, how rigid) is the boundary of the European population? Which groups are Europeans most likely to move in and out of? How does the level of ethnic response change for Europeans compare to change for Indigenous Māori and ethnic minority groups? Aotearoa New Zealand is ideally suited to this topic. It is an exceptionally ethnically diverse country, with nearly 28 percent of the usually resident population overseas-born in the 2018 census, one of the highest levels in the OECD (OECD, 2019). Depending on the definition used, Māori comprise 16.5–18.5 percent of the population (Statistics New Zealand, 2020), which is far larger than the Indigenous share in other ‘CANZUS’ colonial settler states (Canada, the United States, and Australia). As in these countries, the European population share has been declining in recent decades due to lower rates of natural increase, population ageing and the diversification of migration ‘source’ countries. European New Zealanders have long prided themselves on their progressiveness in relation to ethnic and Indigenous relations, particularly compared to neighbouring Australia (Wetherell & Potter, 1992). If the ethnic boundaries separating dominant White and non-dominant groups are indeed fluid rather than fixed, Aotearoa New Zealand is one place where we would expect to see this.

To explore these questions, we use linked individual-level data from the New Zealand Longitudinal Census (NZLC). Created by linking records from the five-yearly Census of Population and Dwellings, NZLC enables us to track aggregate and individual-level changes in ethnic identification over several decades, from 1991 to 2013.<sup>2</sup> Analysing four sets of linked census pairs, we find that European patterns of self-identification diverge significantly from those of Māori and ethnic minority groups. Individuals who identify solely as European in one census are far less likely to change their ethnic self-identification in the next census. These findings suggest that affiliation to dominant ethnicity operates in ways that are meaningfully different to affiliating to other ethnic groups. To put our findings in a broader context, we begin by surveying key theoretical perspectives and how these relate to the Aotearoa New Zealand context.

## Ethnic response change

Changes in census self-identification have been described as ethnic ‘response change’, ‘mobility’, ‘passing’ or ‘crossing’ (Guimond et al., 2015; Liebler et al., 2017). While some of this nomenclature suggests a more fundamental shift in

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<sup>2</sup> The 2018 Census had an unexpectedly low response rate and had to be supplemented with the use of other government datasets, which has affected the quality of some ethnicity data (2018 Census External Data Quality Panel 2019). 2018 census microdata had not been included in the NZLC database at the time of writing this paper.

individuals' identities than can be determined from inconsistent responses to a survey,<sup>3</sup> these patterns nevertheless offer an important window into the ways in which people conceive of the nature of ethnic boundaries and their own ethnic positioning.

As the flagship of national official statistics systems, censuses have a unique symbolic meaning. Census ethnic counts render groups visible at a national scale, in ways tied intimately to power and resource allocation (Anderson, 1991; Ketzner & Arel, 2002). Censuses, and census counts, form a key site in the social construction of recognisable national, group, and individual identities. Census-based studies of ethnic response change have primarily focused on ethnic minorities and Indigenous Peoples in North America. Studies of ethnic enumeration rarely consider change: ethnicity is viewed as a steady state concept. This does not mean, however, that ethnic response change is especially unusual, or a peculiarly 'modern' phenomenon. In a study matching (male) US census records between 1880 and 1940, Nix & Qian (2015) found 19 percent of Black-enumerated males were also recorded as White at some point during their lifetime, and around 10 percent were subsequently recorded again as Black. Black-to-White changes tended to accompany migration to 'Whiter' communities, and occurred with particular frequency in Northern states. Given the social and historical context of Jim Crow-era America, where the boundaries between white and Black are considered to have been especially rigid, these findings demonstrate the surprising degree to which group responses may change.

More recently, a number of studies have focused on the exceptional growth rates in North American Indigenous populations from the 1960s, showing how this was at least partly a result of ethnic mobility into those categories from other groups (Caron-Malenfant et al., 2014; Eschbach, 1993; Eschbach et al., 1998; Guimond, 1999, 2009; Liebler & Ortyl, 2014; Passel, 1976, 1996). For example, more than a million American Indian/Alaska Native (AIAN) respondents in the 2000 US Census had not reported this race in 1990 (Liebler & Ortyl, 2014). These shifts in individual identification have been linked to macro-political changes such as the rise of Indigenous activism and Indigenous policy (Nagel, 1995). These studies have shown that a large number of those newly indicating Aboriginal ethnicity were urban, with above-average education, and formerly 'White'.

Longitudinal analysis of census responses is usually precluded by the lack of personal identifiers in census records (Goldmann, 2009; Liebler et al., 2017). Given this, existing studies of response change have largely relied on indirect residual estimations, tracking the ethnic composition of whole birth cohorts across collections and recording differences in their ethnic composition (Caron-Malenfant et al., 2014). Relatively low rates of migration has meant that relying on such methods is possible for US and Canadian Indigenous groups, but for most groups it has been difficult, if not impossible, to measure flows with certainty, account for any counter-flows, or

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<sup>3</sup> And Simpson and Akinwale (2007) note how changes in ethnic response on a form does not necessarily indicate a change in identity per se, but can reflect other factors, such as data collection, transcription or coding error; change or ambiguity in the survey instrument, or changes in who in practice is completing the form.

identify ‘mobile’ individuals at a disaggregated level.<sup>4</sup> The application of data linkage methods to census records, such as in the NZLC dataset used in this study, offer an important opportunity to study ethnic mobility in much finer granularity than has hitherto been possible.

### Dominant group ethnicity

As in other areas of the sociology of ethnicity and race, studies of ethnic identification have rarely focused on the experience of majority or dominant groups. Dominant ethnicity refers to those ethnic groups which exercise dominance within a nation, whether demographic, cultural, political, or economic (Kaufmann & Haklai, 2008). Doane (1997) defines dominant ethnic groups as those that exercise power in society to create and maintain a pattern of economic, political, and institutional advantage. In these cases, especially where dominance includes numerical dominance as a local majority, there is a political claim that equates the nation and the majority group.

For dominant White groups, the experience of ethnic identity is likely to differ in important ways from those of non-dominant groups. Doane (1997) has shown how the very sense of peoplehood of dominant groups is ‘hidden’ because of the influence such groups have over institutions such as schools, law, and the media. As a result, the preferences and desires of this group come to be seen as objective, natural and innate. The awareness and salience of ethnicity may therefore be less intensely felt for these than for other groups. Qualitative research suggests that while ethnic or racial status is consistently salient for minorities, members of ethnic majorities do not necessarily recognise or identify themselves in ethnic or racial terms (Frankenberg, 1993; Sue, 2004). In Aotearoa New Zealand, MacLean (1996, 117) has suggested that because Pākehā (Europeans) are the dominant culture, there is no need for them to develop ethnic awareness. In the UK context Song (2003, 45) has argued that White Europeans have “a great deal to gain by imposing strict boundaries between themselves and non-European groups”.

An important part of the literature around dominant groups has focused on challenges to dominance and the techniques groups use to maintain it (Kaufmann & Haklai, 2008; Wimmer, 1997). White nationalism is an example. Kaufmann (2018) argues that a ‘whiteshift’ is underway, as minorities grow and those of mixed ethnicity are projected to form a majority in Western countries. These changes, he suggests, are causing profound political transformation, with white resentments influencing the Brexit vote in Britain and the election of Donald Trump. At the more extreme end of this scale is the white nationalist far-right ‘Great Replacement’ conspiracy theory, which holds that a concerted effort is underway to replace European populations with non-Europeans (especially Muslims). Renaud Camus’ 2011 book *Le Grande Replacement* adopted this misrepresentation of the demographic term

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<sup>4</sup> Perez and Hirschman (2009) extended these methods to provide such ‘error of closure’ estimates across American racial categories, subtracting national increase and net international migration numbers from official counts to provide ‘reasonable’ estimates of net interracial mobility. They found a small drift from the non-Hispanic white population into minority ethnic groups over the past quarter century.

‘replacement fertility’ to suggest that migration and lower fertility rates mean the continued dominance of whites in their own ‘homelands’ is under threat. Such views have influenced violent attacks by white extremists, including the 2019 Christchurch Mosque and El Paso shootings. In this environment, understanding the patterning and structures of identity of dominant White groups is important in building knowledge of whiteness as a politically activated category.

Though sparse, the evidence to date suggests that levels of change for dominant White ethnic groups are far lower than for minorities. In the UK, Simpson and Akinwale (2015) and Simpson et al. (2016) used data from the Office of National Statistics Linked Study (LS) to measure stability in ethnic identity between the 1991 and 2001 and 2001 and 2011 censuses. They found significant levels of change in ethnic response overall, but the levels of change varied greatly between ethnic groups, and was lowest for Whites. In the US, Liebler et al. (2017) measured racial/ethnic<sup>5</sup> mobility in a non-representative dataset linking some 162 million records from 2000 and 2010 censuses. They found that about 9.8 million (6.1%) individuals changed their racial or ethnic affiliation and that rates were relatively stable across ages, sexes, and regions. Response change was lowest amongst non-Hispanic Asians (9 percent), Blacks (6 percent) and, especially, Whites (3 percent).

### The Aotearoa New Zealand context

In Aotearoa New Zealand, as in other CANZUS settler societies, the social and political context is characterised by trifurcated social relations involving a settler majority of European origins, an Indigenous Māori population, and a more recent, growing, migrant population of diverse ethnic origins. The country has high rates of ethnic intermarriage and multi-ethnic affiliation from the early period of European settlement, with nineteenth century policy and rhetoric explicitly promoting racial amalgamation (Ward, 1974). Aside from the Māori and European settler populations, more recent migration flows include those from the Pacific Islands (from the 1960s), Asia (from the 1980s) and increasingly also elsewhere in the world, with over 230 ethnic groups reported in the 2013 census (Tapaleao, 2014). Multiple ethnic identification has been recognised in census counts since 1986, when New Zealand was one of the first countries in the world to allow respondents to select the categories that applied to them and those with more than one group categorised as either ‘two origins’ or ‘three origins’, rather than being allocated to a single ethnic group (Cormack & Robson, 2010).

Europeans settled the country rapidly following Te Tiriti o Waitangi/The Treaty of Waitangi in 1840<sup>6</sup>, and by the 1890s represented over 90 percent of the

<sup>5</sup> The US census asks a question on race which lists racial and national-origin groups and a separate ‘ethnicity’ question asking if respondents are of Hispanic or Latino origin. Liebler et al. (2017) measure change over both categories.

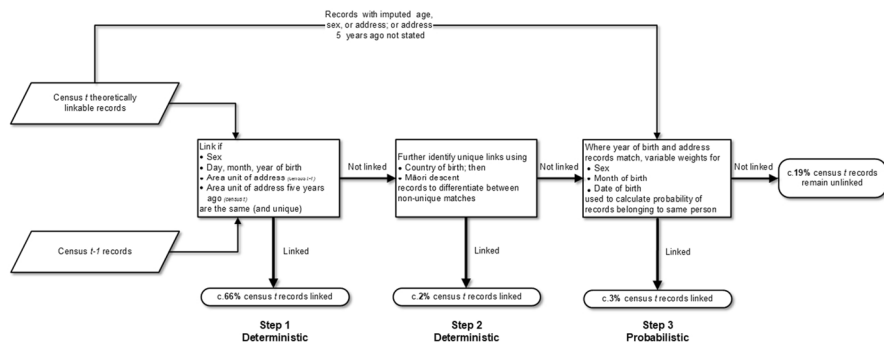
<sup>6</sup> While Britain proclaimed sovereignty on the basis of the Treaty, the Waitangi Tribunal’s response to stage one of the *Wai 1040: Te Paparahi o te Raki* inquiry determined that iwi and hapū did not cede sovereignty in signing Te Tiriti (Waitangi, 2014).

population (Broman, 2018). While their European origins were broader than was typically acknowledged, the majority did have origins in Britain or Ireland, with understandings of identity and belonging tending to emphasise a ‘pioneering’, settler, British group identity (Belich, 1996; Didham et al., 2017). In recent decades, however, declining political, personal, and economic ties with the United Kingdom and a Māori cultural and political revitalisation have forced some degree of critical self-reflection on origins and belonging for this group (Spoonley, 2015). Concurrently, there has been a growing challenge to the dominance (numerical, at least) of the group itself. Immigration policy changes and structural demographic differences have meant the European population has declined, from 83.2 per cent in 1991 to 70.2 per cent in 2018 (Statistics New Zealand, 2017).

These factors have seen local European identity increasingly interrogated, with the writer Peter Wells (2018, 314) arguing that because European New Zealanders have long been the majority group, they have lacked self-awareness, because ‘everybody was the same’. The group has only recently been confronted, as their numerical dominance has been challenged, with questions around their own identity. The 1980s and 1990s seem to have been characterised by an emerging search amongst the European group for a sense of local rootedness or belonging (see King, 1985). Avril Bell (2006, 254) has described a settler (European) lack of substance or ‘ontological unease’, especially concerning the group’s “dubious moral origins”. Despite these perturbations, European New Zealander group identity remains bound to settler colonialism, which continues to shape social trajectories in New Zealand, even if discussions of race tend to be avoided in local policy and academic discussion (Edwards, 2017). As the ongoing beneficiaries of settler colonialism, Europeans continue to enjoy political, symbolic, and cultural power not extended to other groups.

Tied to these shifting notions of identity are ongoing debates surrounding the appropriate official name for European population in New Zealand. As Kertzer and Arel (2002: 20–21) have argued, government counts are “political battlegrounds, where competing notions of ‘real’ identities, and therefore competing names to assign to categories, battle it out.” Battles over the appropriate name for the local European group reflect the ‘unsettled’ nature of settler identity noted by many scholars in this area (Bell, 2006; Pearson, 2008; Terruhn, 2015). Submitters to an official Review of Ethnic Statistics in 1988 made forceful arguments, for example, against the name European (Department of Statistics, 1988), arguments which contributed to the introduction in the 1991 Census of the more localised term New Zealand European. In 1996, the term Pākehā (a Māori colloquial term for local Europeans), was included in the census questionnaire (‘New Zealand European *or* Pakeha<sup>7</sup>’) but this caused controversy, was rejected by many respondents and has not been used since (Broman, 2018). Others, especially in 2006 have also reported New Zealander

<sup>7</sup> The term Pakeha seems to have been dropped after many people in 1996 crossed the word out or otherwise complained about its inclusion (Marcetic, 2018). Many Europeans have a visceral dislike of this word, although it should be noted that a group with the slogan ‘Call Me Pākehā Please’ campaigned for it to be included in the most recent 2018 census (Tokalau, 2018).



**Fig. 1** Record matching in the New Zealand longitudinal census

(or ‘Kiwi’) as a write-in ethnicity, the majority of whom in other censuses had indicated European ethnicity (Brown & Gray, 2009; Kukutai & Didham, 2012). It is interesting to note that the ongoing controversy about official terminology has reflected both a desire to break free from ‘European’ and be naturalised, but also a rejection of any identification in relationship to the Indigenous peoples (i.e., not using a Māori name).

A number of local studies (Brown & Gray, 2009; Coope & Piesse, 1997; Didham, 2016; Moore, 1989) have previously examined ethnic mobility in the local population census, mostly in relation to Māori. Brown et al. (2010) have estimated that the overall levels of response change between censuses were 4 % in 1976–1981, 9 % in 1991–1996, and 20 % in 2001–2006. The higher level in the latter period is a result primarily of the marked increase in people indicating New Zealander ethnicity in the 2006 census, following media attention and an email campaign promoting this response.<sup>8</sup> Although the email purported a rejection of ethnic distinctions, local Europeans were the group most likely—or able—to claim this national ethnic group. Far fewer people indicated New Zealander ethnicity in the 2013 or 2018 censuses.

If this example does indicate some form of contextual response change for the majority ethnicity, overall levels of stability or change for this group remain little understood, especially in comparison to other ethnic groups. The following analyses examine whether there have been any observable shifts in ethnic reporting, or fluidity in the labels adopted, by members of New Zealand’s majority group.

<sup>8</sup> People recording New Zealander ethnicity increased from 85,300 people in 2001 to 429,429 in 2006 (Kukutai and Didham 2012), and this number dropped still further to 65,973 people in 2013 (Didham 2017).



## Data and method

To trace individual ethnic identification across censuses, data from the New Zealand Longitudinal Census (NZLC) is used. A technical paper describing the methodology used in creating this dataset has been published elsewhere (Didham et al., 2014), and only a brief outline is given here. Census records were linked in pairs, with records from the more recent ‘source’ census ( $t$ ) compared against those from the previous ‘target’ census ( $t-1$ ) in a series of stages. The process is shown in Fig. 1.

A theoretical population (at census  $t$ ) available to be linked was first defined for each census pair. This population excluded records with no chance of being linked because the person was not born, or was resident overseas, at the previous census.<sup>9</sup> SAS® 9.4 (SAS Institute Inc., Cary, North Carolina) was then used to compare these eligible census  $t$  records to census  $t-1$  records.<sup>10</sup> Where the sex, day/month/year of birth, and area unit of usual residence (i.e., of the address of usual residence collected at census  $t-1$  and ‘address of usual residence 5 years ago’ collected at census  $t$ ) of records were a unique match, they were considered a linked pair. For each census pair, this initial *deterministic* stage linked approximately 68 per cent of eligible records. A subsequent second deterministic stage used country of birth and then Māori descent<sup>11</sup> information to further differentiate between records that matched on all three of the earlier blocking variables but did not constitute a unique match. This step added approximately a further two percentage points to link rates.

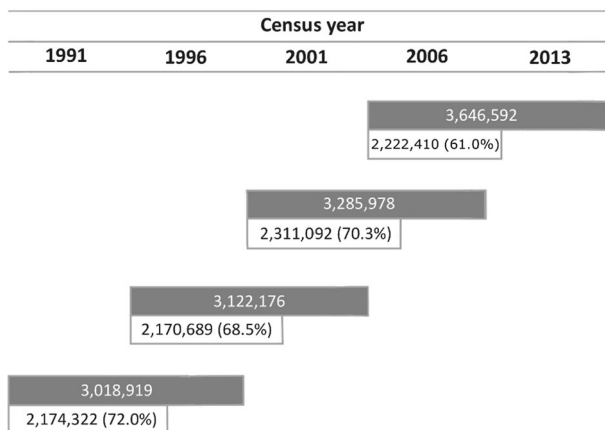
Remaining unmatched records proceeded to a final, *probabilistic* linking stage undertaken using InfoSphere® QualityStage® (IBM Corp., Armonk, New York). As in the deterministic stage, year of birth and census  $t$  address 5 years ago/census  $t-1$  current address were retained as blocking variables, so that records required these values be the same before they were compared. Remaining variables (date of birth, month of birth, and sex) were assigned probability values for matching when from the same person, or randomly having the same value when not the same person. These probabilities allowed the software to assign estimation weights to compared records, representing the likelihood of being a ‘true’ match. Records above a given cut-off weight were considered true links, adding approximately another three percentage points to link rates.

While the NZLC dataset links census pairs from 1981, this study analyses change in four census pairs covering a 22-year period: 1991–1996; 1996–2001; 2001–2006; and 2006–2013. Undertaking our analysis by linked pair ensures greatest possible

<sup>9</sup> Records created via a ‘substitute’ census form were also excluded. This approach was used when Statistics New Zealand gained sufficient evidence during the collection process that a person existed, or a dwelling was occupied but no corresponding form was received (Statistics New Zealand 2014). Some variables are imputed for these records, but they do not contain sufficient information to satisfy the requirements of the linking process.

<sup>10</sup> A number of theoretically linkable census records at each census ( $t$ ) were not eligible for deterministic matching because age, sex or address variables were not stated or otherwise available. Such records were included in the subsequent probabilistic matching stage.

<sup>11</sup> Since 1991, when a question on ‘ethnic group’ was introduced, a separate question in the New Zealand census has asked if the respondent is of (indigenous) Māori ancestry/descent.



**Fig. 2** Theoretical populations available for linking vs number of records linked 1991–2013 census pairs, NZLC. Source: New Zealand Longitudinal Census (NZLC), Statistics New Zealand

coverage by minimising the impact of accumulated non-linkage, and overall, the period is a fruitful one for examining local European identification as it coincides with broader local demographic changes challenging the dominant position of this group. Figure 2 shows the theoretically linkable population and the number and per cent for which a link was achieved, for each included pair.

The proportion of theoretically linked records that were successfully linked was similar in the first three census periods, with around 70 percent of all eligible records successfully linked to a record in the previous census. The lower linkage rate for 2006–2013 records is due largely to the longer period between censuses: a national census scheduled for March 2011 was postponed until 2013 as a result of the Christchurch earthquake of February 22, 2011. Matching on the recorded address as at the previous census was more difficult for this census.

### Data limitations

It is important to note some limitations in the NZLC data used in this study. While confidence can be held in the quality of links made through this process, certain sub-populations were more difficult to link than others. Theoretically linkable records sometimes failed to be linked, such as where the person (a) did not return a census form at census  $t-1$ ; (b) provided a usual residence five years ago inconsistent with the address recorded at census  $t-1$ ; or (c) provided incomplete or incorrect information for other key linking variables (Didham et al. 2014). The likelihood of such are not evenly distributed, so that those at more mobile early adult ages (20–34 years) are less likely to have been linked. Some ethnic groups, especially those with younger age profiles (such as Māori and Pacific peoples) have relatively lower link rates. Males are more likely to be missed in census counts and to provide inconsistent information between one census and the next and so are less likely to be linked than females.

As a result, link missingness did not occur at random, and the matched data used here are not necessarily representative and should not be interpreted as such. Nevertheless, the data cover a considerable portion of the New Zealand population and are sufficiently dense to demonstrate broad levels of change in ethnic identification, as well as indicate the general direction of change. As linking is weighted towards more settled and less mobile individuals, they also likely understate true rates of change in ethnic reporting. To help readers further understand the relationship between the linked data used in this study and the wider population, "Appendix 1" compares the age, sex, and ethnic profile of the population of achieved links with the census *t* usually resident population, for each included census pair.

## Measuring ethnicity

Each census included in this study asked an 'ethnic group' question with listed tick-box categories, and an open-ended 'other' category allowing write-in answers (see "Appendix 2" for the census ethnicity questions). Census ethnic responses are classified according to the Ethnicity New Zealand Standard Classification 2005. The classification has four levels, ranging from six 'major ethnic groups' at level one (European, Māori, Asian, Pacific, Middle Eastern, Latin American or African ['MELAA'] and Other) to 200+ groups at level four. In the most recent classification (Statistics New Zealand, 2017), the level 1 European major ethnic group disaggregates to some 60 specific ethnic groups at level 4 including Australian, American, Canadian, English, Afrikaner, and Gypsy. While coding and classification practices have changed over the period, the records used in this analysis have been re-coded to be as compatible as possible with the current classification.

The exception is New Zealander (or Kiwi) write-in responses. In the 1986 census these were coded separately, as 'New Zealander', considered a European category at higher levels. From 1991 to 2006 these were coded as New Zealand European at levels two, three and four of the classification, also aggregating to European at level one. Classification changes in 2006 saw New Zealander-type responses again hard coded as a separate (level 4) category, this aggregating instead to 'Other ethnicity' (not European) at levels one to three (Statistics New Zealand, 2005). This paper examines ethnic stability and change in the aggregate level one categories and then at more nuanced lower levels within the level 1 European grouping. As these censuses have also allowed individuals to report multiple ethnicities, the following analysis distinguishes between those identifying solely with a single ethnic group, and those reporting European in combination with other ethnicities.

## Results

We begin by examining the prevalence and direction of ethnic response change for all level one groups over the focal period. Tables 1, 2, 3, 4 show, for each census pair, comparisons of ethnic responses for the major ethnic groups and the most popular combinations. Each table includes census ethnicity responses in 14 mutually

**Table 1** 1991–1996 ethnic mobility, NZLC linked records. Level 1 (alone and selected combinations)

1991 ethnic groupings/s	1996 ethnic groupings/s										Total				
	Sole Euro-pean	Sole Māori	Sole Pacific	Sole Asian	Sole MELAA	Sole Other	Euro-pean+Māori	Euro-pean+Pacific	Euro-pean+Asian	Euro-pean+MELAA		Euro-pean+Other	Euro-pean+2 or more Euro-pean	Residu-als	
<i>Frequency</i>															
Sole European	1,737,855	7,791	1,407	951	297	36	39,417	5,043	2,208	1,197	213	1,188	444	12,423	1,810,470
Sole Māori	5,136	<b>113,487</b>	741	90	6	0	35,790	159	21	3	3	1,497	2,625	1,368	160,926
Sole Pacific	1,179	426	<b>54,303</b>	213	3	0	168	4,764	18	0	3	633	1,986	654	64,350
Sole Asian	960	87	216	<b>42,669</b>	21	6	60	27	1,017	6	3	75	510	405	46,062
Sole MELAA <sup>a</sup>	342	3	6	9	<b>1,320</b>	0	6	6	6	258	0	3	12	33	2,004
Sole Other	39	0	0	9	3	<b>48</b>	3	0	6	0	21	3	3	0	135
European + Māori	5,859	8,403	78	9	0	<b>41,991</b>	6	69	6	6	0	768	198	402	57,789
European + Pacific	813	51	879	9	0	0	48	<b>8,079</b>	9	6	0	369	180	63	10,506
European + Asian	687	9	9	780	0	6	18	21	<b>3,159</b>	12	12	117	36	30	4,896
Euro-pean+MELAA	282	3	3	0	123	0	3	0	0	<b>447</b>	3	12	3	15	894
European+Other	18	0	0	0	0	9	3	0	0	0	<b>18</b>	3	0	3	54
European+2 or more <sup>b</sup>	162	171	81	9	0	0	366	219	39	9	0	<b>2,712</b>	480	12	4,260
2 or more non-European <sup>c</sup>	117	441	507	156	6	3	150	120	12	3	3	1,083	<b>4,314</b>	30	6,945
Residuals <sup>d</sup>	3,735	282	168	108	9	0	363	87	30	21	0	39	45	<b>147</b>	5,034
Total	1,757,184	131,154	58,398	45,012	1,788	108	118,386	18,594	6,531	1,968	279	8,502	10,836	15,585	<b>2,174,325</b>
<i>Per cent of 1991 group</i>															
Sole European	<b>96.0</b>	0.4	0.1	0.1	0.0	0.0	2.2	0.3	0.1	0.1	0.0	0.1	0.0	0.7	100.0
Sole Māori	3.2	<b>70.5</b>	0.5	0.1	0.0	0.0	22.2	0.1	0.0	0.0	0.0	0.9	1.6	0.9	100.0
Sole Pacific	1.8	0.7	<b>84.4</b>	0.3	0.0	0.0	0.3	7.4	0.0	0.0	0.0	1.0	3.1	1.0	100.0
Sole Asian	2.1	0.2	0.5	<b>92.6</b>	0.0	0.0	0.1	0.1	2.2	0.0	0.0	0.2	1.1	0.9	100.0
Sole MELAA	17.1	0.1	0.3	0.4	<b>65.9</b>	0.0	0.3	0.3	0.3	12.9	0.0	0.1	0.6	1.6	100.0
Sole Other	28.9	0.0	0.0	6.7	2.2	<b>35.6</b>	2.2	0.0	4.4	0.0	15.6	2.2	2.2	0.0	100.0

**Table 1** (continued)

1991 ethnic groupings/s	1996 ethnic grouping/s											Total			
	Sole Euro-pean	Sole Māori	Sole Pacific	Sole Asian	Sole MELAA	Sole Other	Euro-pean + Māori	Euro-pean + Pacific	Euro-pean + Asian	Euro-pean + MELAA	Euro-pean + Other		Euro-pean + 2 or more Euro-pean	Residuals	
European + Māori	10.1	14.5	0.1	0.0	0.0	0.0	<b>72.7</b>	0.1	0.0	0.0	0.0	1.3	0.3	0.7	100.0
European + Pacific	7.7	0.5	8.4	0.1	0.0	0.0	0.5	<b>76.9</b>	0.1	0.1	0.0	3.5	1.7	0.6	100.0
European + Asian	14.0	0.2	0.2	15.9	0.0	0.1	0.4	0.4	<b>64.5</b>	0.2	0.2	2.4	0.7	0.6	100.0
Euro-pean + MELAA	31.5	0.3	0.3	0.0	13.8	0.0	0.3	0.0	0.0	<b>50.0</b>	0.3	1.3	0.3	1.7	100.0
European + Other	33.3	0.0	0.0	0.0	0.0	16.7	5.6	0.0	0.0	0.0	<b>33.3</b>	5.6	0.0	5.6	100.0
European + 2 or more	3.8	4.0	1.9	0.2	0.0	0.0	8.6	5.1	0.9	0.2	0.0	<b>63.7</b>	11.3	0.3	100.0
2 or more non-European	1.7	6.3	7.3	2.2	0.1	0.0	2.2	1.7	0.2	0.0	0.0	15.6	<b>62.1</b>	0.4	100.0
Residuals	74.2	5.6	3.3	2.1	0.2	0.0	7.2	1.7	0.6	0.4	0.0	0.8	0.9	<b>2.9</b>	100.0
Total	80.8	6.0	2.7	2.1	0.1	0.0	5.4	0.9	0.3	0.1	0.0	0.4	0.5	0.7	<b>100.0</b>

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<sup>a</sup>MELAA is a level 1 grouping of 'Middle Eastern, Latin American, African' ethnicities

<sup>b</sup>Where respondents have indicated one or more 'European' ethnicity, as well as ethnicities from two or more other groupings

<sup>c</sup>Where respondents have indicated ethnicities from two or more level one groupings, excluding European

<sup>d</sup>Includes Don't know/Refused to answer/Repeated value/Response unidentifiable/Response outside scope/Not stated

**Bold** indicates consistent responses

**Table 2** 1996–2001 ethnic mobility, NZLC linked records. Level 1 (alone and selected combinations)

1996 ethnic groupings/s	2001 ethnic groupings/s											Total			
	Sole Euro-pean	Sole Māori	Sole Pacific	Sole Asian	Sole MELAA	Sole Other	Euro-pean + Māori	Euro-pean + Pacific	Euro-pean + Asian	Euro-pean + MELAA	Euro-pean + Other		Euro-pean + 2 or more Euro-pean	Residuals	
<i>Frequency</i>															
Sole European	1,675,251	3,939	1,296	1,185	450	60	14,244	1,752	1,086	558	63	552	207	10,947	1,711,590
Sole Māori	6,051	<b>104,127</b>	507	108	12	3	15,252	81	12	3	0	465	843	669	128,133
Sole Pacific	1,134	393	<b>59,586</b>	201	12	0	120	1,638	12	3	3	246	732	330	64,416
Sole Asian	1,521	93	201	<b>68,394</b>	36	9	63	24	933	3	0	36	165	351	71,829
Sole MELAA <sup>a</sup>	453	9	18	21	<b>3,234</b>	3	6	0	0	186	0	9	15	57	4,011
Sole Other	33	0	0	9	6	<b>42</b>	3	0	3	0	12	0	3	3	114
European + Māori	27,390	24,108	207	66	6	0	<b>68,751</b>	102	24	12	3	984	183	732	122,568
European + Pacific	3,870	75	4,206	33	0	0	108	<b>10,923</b>	12	3	0	468	66	117	19,881
European + Asian	2,310	18	21	1,428	6	3	24	9	<b>3,969</b>	9	6	102	12	84	8,001
Euro-pean + MELAA	1,158	3	6	0	279	0	9	6	6	<b>690</b>	0	18	3	36	2,214
European + Other	195	3	0	0	3	15	3	0	30	6	<b>54</b>	9	3	9	330
European + 2 or more <sup>b</sup>	834	981	621	63	9	3	1,095	507	93	18	3	<b>4,728</b>	942	54	9,951
2 or more non-European <sup>c</sup>	360	1,659	2,046	522	15	3	279	228	21	6	0	1,437	<b>5,529</b>	54	12,159
Residuals <sup>d</sup>	11,388	1,257	804	597	51	3	693	78	45	12	0	57	63	<b>441</b>	15,489
Total	1,731,948	136,665	69,519	72,633	4,119	144	100,650	15,348	6,246	1,509	144	9,111	8,766	13,884	<b>2,170,686</b>
<i>Per cent of 1996 group</i>															
Sole European	<b>97.9</b>	0.2	0.1	0.1	0.0	0.0	0.8	0.1	0.1	0.0	0.0	0.0	0.0	0.6	100.0
Sole Māori	4.7	<b>81.3</b>	0.4	0.1	0.0	0.0	11.9	0.1	0.0	0.0	0.0	0.4	0.7	0.5	100.0
Sole Pacific	1.8	0.6	<b>92.5</b>	0.3	0.0	0.0	0.2	2.5	0.0	0.0	0.0	0.4	1.1	0.5	100.0
Sole Asian	2.1	0.1	0.3	<b>95.2</b>	0.1	0.0	0.1	0.0	1.3	0.0	0.0	0.1	0.2	0.5	100.0
Sole MELAA	11.3	0.2	0.4	0.5	<b>80.6</b>	0.1	0.1	0.0	0.0	4.6	0.0	0.2	0.4	1.4	100.0
Sole Other	28.9	0.0	0.0	7.9	5.3	<b>36.8</b>	2.6	0.0	2.6	0.0	10.5	0.0	2.6	2.6	100.0

**Table 2** (continued)

1996 ethnic groupings/s	2001 ethnic groupings/s											Total			
	Sole Euro-pean	Sole Māori	Sole Pacific	Sole Asian	Sole MELAA	Sole Other	Euro-pean + Māori	Euro-pean + Pacific	Euro-pean + Asian	Euro-pean + MELAA	Euro-pean + Other		Euro-pean + 2 or more Euro-pean	Residuals	
European + Māori	22.3	19.7	0.2	0.1	0.0	0.0	<b>56.1</b>	0.1	0.0	0.0	0.0	0.8	0.1	0.6	100.0
European + Pacific	19.5	0.4	21.2	0.2	0.0	0.0	0.5	<b>54.9</b>	0.1	0.0	0.0	2.4	0.3	0.6	100.0
European + Asian	28.9	0.2	0.3	17.8	0.1	0.0	0.3	0.1	<b>49.6</b>	0.1	0.1	1.3	0.1	1.0	100.0
Euro-pean + MELAA	52.3	0.1	0.3	0.0	12.6	0.0	0.4	0.3	0.3	<b>31.2</b>	0.0	0.8	0.1	1.6	100.0
European + Other	59.1	0.9	0.0	0.0	0.9	4.5	0.9	0.0	9.1	1.8	<b>16.4</b>	2.7	0.9	2.7	100.0
European + 2 or more	8.4	9.9	6.2	0.6	0.1	0.0	11.0	5.1	0.9	0.2	0.0	<b>47.5</b>	9.5	0.5	100.0
2 or more non-European	3.0	13.6	16.8	4.3	0.1	0.0	2.3	1.9	0.2	0.0	0.0	11.8	<b>45.5</b>	0.4	100.0
Residuals	73.5	8.1	5.2	3.9	0.3	0.0	4.5	0.5	0.3	0.1	0.0	0.4	0.4	<b>2.8</b>	100.0
Total	79.8	6.3	3.2	3.3	0.2	0.0	4.6	0.7	0.3	0.1	0.0	0.4	0.4	0.6	<b>100.0</b>

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<sup>a</sup>MELAA is a level 1 grouping of 'Middle Eastern, Latin American, African' ethnicities

<sup>b</sup>Where respondents have indicated one or more 'European' ethnicity, as well as ethnicities from two or more other groupings.

<sup>c</sup>Where respondents have indicated ethnicities from two or more level one groupings, excluding European

<sup>d</sup>Includes Don't know/Refused to answer/Repeated value/Response unidentifiable/Response outside scope/Not stated

**Bold** indicates consistent responses

**Table 3** 2001–2006 ethnic mobility, NZLC linked records. Level 1 (alone and selected combinations)

2001 ethnic groupings/s	2006 ethnic groupings/s										Total				
	Sole Euro-pean	Sole Māori	Sole Pacific	Sole Asian	Sole MELAA	Sole Other	Euro-pean+Māori	Euro-pean+Pacific	Euro-pean+Asian	Euro-pean+MELAA		Euro-pean+Other	Euro-pean+2 or more Euro-pean	Resid-uals	
<i>Frequency</i>															
Sole European	1,461,297	5,553	1,542	1,875	513	244,905	20,448	2,226	1,191	450	22,677	2,055	10,092	8,469	1,783,293
Sole Māori	3,042	<b>114,411</b>	567	126	6	1,623	15,531	66	6	0	45	897	3,018	693	140,031
Sole Pacific	1,110	447	<b>76,407</b>	318	30	453	153	1,938	15	0	24	360	2,355	414	84,024
Sole Asian	1,506	114	378	<b>107,130</b>	81	1,173	84	45	870	3	18	81	2,616	432	114,531
Sole MELAA	822	18	33	72	<b>6,903</b>	189	18	3	3	165	12	15	177	114	8,544
Sole Other	39	3	0	6	3	<b>72</b>	3	0	0	0	3	0	3	6	138
European + Māori	10,683	17,283	177	78	12	5,856	<b>73,320</b>	75	9	3	198	3,138	2,394	417	113,643
European + Pacific	1,833	48	2,322	48	6	690	63	<b>11,418</b>	6	0	39	783	618	72	17,946
European + Asian	1,428	12	18	1,137	3	564	21	15	<b>4,269</b>	6	42	255	594	42	8,406
Euro-pean+MELAA <sup>a</sup>	843	3	0	3	213	120	9	0	3	<b>672</b>	21	57	108	33	2,085
European + Other	81	0	0	3	0	36	0	0	6	3	<b>51</b>	6	0	3	189
European + 2 or more <sup>b</sup>	486	642	396	42	6	342	825	438	78	18	21	<b>7,098</b>	1,284	36	11,757
2 or more non-European <sup>c</sup>	192	885	1,071	231	24	93	141	96	15	0	9	963	<b>7,083</b>	42	10,845
Residuals <sup>d</sup>	8,865	1,191	549	702	123	1,998	741	108	57	27	177	132	285	<b>720</b>	15,675
<b>Total</b>	<b>1,492,227</b>	<b>140,610</b>	<b>83,460</b>	<b>111,771</b>	<b>7,923</b>	<b>258,114</b>	<b>111,357</b>	<b>16,473</b>	<b>6,528</b>	<b>1,347</b>	<b>23,227</b>	<b>15,840</b>	<b>30,627</b>	<b>11,493</b>	<b>2,311,107</b>
<i>Per cent of 2001 group</i>															
Sole European	<b>81.9</b>	0.3	0.1	0.1	0.0	13.7	1.1	0.1	0.1	0.0	1.3	0.1	0.6	0.5	100.0
Sole Māori	2.2	<b>81.7</b>	0.4	0.1	0.0	1.2	11.1	0.0	0.0	0.0	0.0	0.6	2.2	0.5	100.0
Sole Pacific	1.3	0.5	<b>90.9</b>	0.4	0.0	0.5	0.2	2.3	0.0	0.0	0.0	0.4	2.8	0.5	100.0
Sole Asian	1.3	0.1	0.3	<b>93.5</b>	0.1	1.0	0.1	0.0	0.8	0.0	0.0	0.1	2.3	0.4	100.0
Sole MELAA	9.6	0.2	0.4	0.8	<b>80.8</b>	2.2	0.2	0.0	0.0	1.9	0.1	0.2	2.1	1.3	100.0
Sole Other	28.3	2.2	0.0	4.3	2.2	<b>52.2</b>	2.2	0.0	0.0	0.0	2.2	0.0	2.2	4.3	100.0



**Table 3** (continued)

2001 ethnic groupings/s	2006 ethnic groupings/s											Total			
	Sole Euro-pean	Sole Māori	Sole Pacific	Sole Asian	Sole MELAA	Sole Other	Euro-pean + Māori	Euro-pean + Pacific	Euro-pean + Asian	Euro-pean + MELAA	Euro-pean + Other		Euro-pean + 2 or more Euro-pean	Resid-uals	
European + Māori	9.4	15.2	0.2	0.1	0.0	5.2	<b>64.5</b>	0.1	0.0	0.0	0.2	2.8	2.1	0.4	100.0
European + Pacific	10.2	0.3	12.9	0.3	0.0	2.8	0.4	<b>63.6</b>	0.0	0.0	0.2	4.4	3.4	0.4	100.0
European + Asian	17.0	0.1	0.2	13.5	0.0	6.7	0.2	0.2	<b>50.8</b>	0.1	0.5	3.0	7.1	0.5	100.0
Euro-pean + MELAA	40.4	0.1	0.0	0.1	10.2	5.8	0.4	0.0	0.1	<b>32.2</b>	1.0	2.7	5.2	1.6	100.0
European + Other	42.9	0.0	0.0	1.6	0.0	19.0	0.0	0.0	3.2	1.6	<b>27.0</b>	3.2	0.0	1.6	100.0
European + 2 or more	4.1	5.5	3.4	0.4	0.1	2.9	7.0	4.1	0.7	0.2	0.2	<b>60.4</b>	10.9	0.3	100.0
2 or more non-European	1.8	8.2	9.9	2.1	0.2	0.9	1.3	0.9	0.1	0.0	0.1	8.9	<b>65.3</b>	0.4	100.0
Residuals	56.6	7.6	3.5	4.5	0.8	12.7	4.7	0.7	0.4	0.2	1.1	0.8	1.8	<b>4.6</b>	100.0
Total	64.6	6.1	3.6	4.8	0.3	11.2	4.8	0.7	0.3	0.1	1.0	0.7	1.3	0.5	<b>100.0</b>

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<sup>a</sup>MELAA is a level 1 grouping of 'Middle Eastern, Latin American, African' ethnicities

<sup>b</sup>Where respondents have indicated one or more 'European' ethnicity, as well as ethnicities from two or more other groupings

<sup>c</sup>Where respondents have indicated ethnicities from two or more level one groupings, excluding European

<sup>d</sup>Includes Don't know/Refused to answer/Repeated value/Response unidentifiable/Response outside scope/Not stated

**Bold** indicates consistent responses

Table 4 2006–2013 ethnic mobility, NZLC linked records. Level 1 (alone and selected combinations)

2006 ethnic groupings/s	2013 ethnic groupings/s										Total				
	Sole European	Sole Māori	Sole Pacific	Sole Asian	Sole MELAA	Sole Other	European+Māori	European+Pacific	European+Asian	European+MELAA		European+Other	European	2 or more non-European	Residuals
<i>Frequency</i>															
Sole European	1,313,310	8,472	3,192	11,193	2,148	11,238	18,954	2,217	1,497	516	1,560	1,026	606	5,217	1,381,146
Sole Māori	10,401	<b>100,122</b>	1,242	1,722	195	336	16,659	168	54	12	24	666	1,179	543	133,323
Sole Pacific	3,054	882	<b>75,675</b>	1,938	174	114	507	1,926	27	9	12	393	1,359	291	86,361
Sole Asian	7,968	744	1,518	<b>147,399</b>	645	510	684	201	1,083	27	18	168	924	519	162,408
Sole MELAA <sup>a</sup>	1,629	105	123	552	<b>11,061</b>	63	96	18	180	3	3	24	78	183	14,124
Sole Other	204,204	2,571	693	2,280	312	<b>19,764</b>	7,461	720	504	69	993	543	294	1,035	241,443
European + Māori	15,576	14,721	591	1,287	150	585	<b>72,852</b>	174	54	15	30	1,029	270	339	107,673
European + Pacific	1,959	159	1,908	288	24	75	159	<b>10,530</b>	18	3	9	489	144	51	15,816
European + Asian	1,518	48	39	870	12	99	45	15	<b>4,512</b>	6	6	123	69	27	7,389
European + MELAA	672	9	12	33	246	18	9	3	9	<b>654</b>	0	36	15	12	1,728
European + Other	19,773	117	51	129	27	804	318	42	39	12	<b>312</b>	27	9	93	21,753
European + 2 or more <sup>b</sup>	1,887	975	411	303	33	222	3,348	645	252	39	12	<b>7,284</b>	1,176	57	16,644
2 or more non-European <sup>c</sup>	1,620	1,827	1,734	2,145	195	369	1,881	462	426	72	6	1,047	<b>7,029</b>	66	18,906
Residuals <sup>d</sup>	8,592	1,074	636	1,188	279	354	660	81	54	15	24	78	90	<b>576</b>	13,701
Total	1,592,163	131,826	87,825	171,327	15,501	34,551	123,633	17,202	8,538	1,629	3,009	12,960	13,242	9,009	<b>2,222,415</b>
<i>Per cent of 2006 group<sup>e</sup></i>															
Sole European	<b>95.1</b>	0.6	0.2	0.8	0.2	0.8	1.4	0.2	0.1	0.0	0.1	0.1	0.0	0.4	100.0
Sole Māori	7.8	<b>75.1</b>	0.9	1.3	0.1	0.3	12.5	0.1	0.0	0.0	0.0	0.5	0.9	0.4	100.0
Sole Pacific	3.5	1.0	<b>87.6</b>	2.2	0.2	0.1	0.6	2.2	0.0	0.0	0.0	0.5	1.6	0.3	100.0
Sole Asian	4.9	0.5	0.9	<b>90.8</b>	0.4	0.3	0.4	0.1	0.7	0.0	0.0	0.1	0.6	0.3	100.0
Sole MELAA	11.5	0.7	0.9	3.9	<b>78.3</b>	0.4	0.7	0.1	1.3	0.0	0.0	0.2	0.6	1.3	100.0
Sole Other	84.6	1.1	0.3	0.9	0.1	<b>8.2</b>	3.1	0.3	0.2	0.0	0.4	0.2	0.1	0.4	100.0
European + Māori	14.5	13.7	0.5	1.2	0.1	0.5	<b>67.7</b>	0.2	0.1	0.0	0.0	1.0	0.3	0.3	100.0
European + Pacific	12.4	1.0	12.1	1.8	0.2	0.5	1.0	<b>66.6</b>	0.1	0.0	0.1	3.1	0.9	0.3	100.0
European + Asian	20.5	0.6	0.5	11.8	0.2	1.3	0.6	0.2	<b>61.1</b>	0.1	0.1	1.7	0.9	0.4	100.0
European + MELAA	38.9	0.5	0.7	1.9	14.2	1.0	0.5	0.2	0.5	<b>37.8</b>	0.0	2.1	0.9	0.7	100.0
European + Other	90.9	0.5	0.2	0.6	0.1	3.7	1.5	0.2	0.2	0.1	<b>1.4</b>	0.1	0.0	0.4	100.0

**Table 4** (continued)

	2013 ethnic groupings/s											Total			
	Sole Euro-pean	Sole Maori	Sole Pacific	Sole Asian	Sole MELAA	Sole Other	Euro-pean+Maori	Euro-pean+Pacific	Euro-pean+Asian	Euro-pean+MELAA	Euro-pean+Other		Euro-pean+2 or more	2 or more non-European	Residuals
European + 2 or more	11.3	5.9	2.5	1.8	0.2	1.3	20.1	3.9	1.5	0.2	0.1	<b>43.8</b>	7.1	0.3	100.0
2 or more non-European	8.6	9.7	9.2	11.3	1.0	2.0	9.9	2.4	2.3	0.4	0.0	5.7	<b>37.2</b>	0.3	100.0
Residuals	62.7	7.8	4.6	8.7	2.0	2.6	4.8	0.6	0.4	0.1	0.2	0.6	0.7	<b>4.2</b>	100.0
Total	71.6	5.9	4.0	7.7	0.7	1.6	5.6	0.8	0.4	0.1	0.1	0.6	0.6	0.4	<b>100.0</b>

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Confidentiality rules have been applied to all cells, including randomly rounding to base 3. Individual figures may not add up to totals, and values for the same data may vary slightly between different text, tables and graphs

<sup>a</sup>MELAA is a level 1 grouping of 'Middle Eastern, Latin American, African' ethnicities

<sup>b</sup>Where respondents have indicated one or more 'European' ethnicity, as well as ethnicities from two or more other groupings

<sup>c</sup>Where respondents have indicated ethnicities from two or more level one groupings, excluding European

<sup>d</sup>Includes Don't know/Refused to answer/Repeated value/Response unidentifiable/Response outside scope/Not stated

**Bold** indicates consistent responses

exclusive categories, clustered into three groups. The first indicates single-ethnicity responses for each of the six level one major ethnic groups (European, Māori, Pacific, Asian, MELAA or Other ethnicity). We note that a person who identified as both New Zealand European and Scottish would be classified as sole European (as both groups are classified as European at level one), but not someone recorded as New Zealand European and Māori (who would be counted in both European and Māori). The second group is made up of European response/s 'combined' with one or more responses from each of the other major ethnic groups (e.g., European and Māori; European and Pacific<sup>12</sup>). The final group includes a category of responses for European responses in combination with ethnicities from two or more other major ethnic groups (e.g., European, Pacific and Māori); a category for responses from two or more non-European ethnicities (such as Pacific and Māori); and a 'residual' category for individuals for whom no ethnicity was recorded. The number and per cent remaining in the same category from one census to the next is shown in bold in each table.

Focusing first on the sole ethnic group diagonals, we can see levels of change vary significantly by group, but change is generally lower than for the combined group ethnicities. Rates of change were somewhat higher between 1991 and 1996, likely due to changes to the 1996 ethnicity question. Compared to the 1991 question (which 2001 and later censuses later reverted to), the 1996 census question made it more explicit that respondents could indicate more than one ethnicity (see "[Appendix 2](#)"). As a result, the proportion of respondents recording more than one ethnicity increased, from 5.0% of the total population (166,158 people) in 1991 to 15.5% (536,757) in 1996 (Kukutai & Callister, 2009). The effect of the change is seen in the shifts from various sole categories into combination categories in [Table 1](#), mirrored by reverse flows back into the single ethnicity categories in [Table 2](#).

While shifts from sole European to the various other categories were large in numerical terms, this reflects the numerical dominance of Europeans rather than any greater underlying propensity to change. Indeed, of those who identified exclusively with European ethnic group/s in 1996, almost 98 per cent also identified solely as European in 2001. The exception was the period 2001–2006 ([Table 3](#)), where the percent remaining sole European dropped to 81.9 per cent. This is a result of the increase in New Zealander responses in the 2006 census, shown in the marked increase and then decline in the sole Other and European and Other categories ([Tables 3, 4](#)). As earlier noted, the issue of New Zealander ethnicity had seen public attention in the years leading up to the 2006 census, and a chain email urging people to write-in a New Zealander response circulated in the months prior (Kukutai & Didham, 2012).

The number of people recorded in the sole Asian category increased over each intercensal period, reflecting the growing level of migration from this part of the world (Ho, 2015). Sole Asian responses were relatively stable, with over 90 percent

<sup>12</sup> Note that categories will include people who report two or more ethnicities within each level one category, so that those who recorded New Zealand European (level one European), Samoan and Tongan (both level one Pacific peoples) would be counted here as European and Pacific.

remaining in the category across every census pair. This relative stability likely reflects the high proportion of overseas-born in the population (79% in 2006, Statistics New Zealand, 2006) recent migration experience and lower levels of inter-ethnic partnering (Callister et al., 2005). The sole Asian category was relatively insensitive to the 1996 question change.

By contrast, the sole Māori category displays high levels of intercensal change in identification. In any given census pair, only 71–82% of those identified as solely Māori in the first census gave the same response in the second, with the 1996 question change having a marked impact. In all census periods, flows out of the sole Māori category were predominantly into Māori-European, which reflects findings from prior research (Coope & Piesse, 1997; Didham, 2016).

The impact of changes in the ethnicity question in 1996 is also evident in patterns for sole Pacific responses, with a relatively low 84% of sole Pacific responses in 1991 also recording sole Pacific in 1996 (many instead recording Pacific and European). In other census pairs, stability within the sole Pacific category ranged from 88 to 93%. Where change occurred, it was mostly distributed fairly evenly across sole Pacific, Pacific and European, and the two or more (non-European) group categories, most likely Pacific and Māori.

The various ethnic combination categories were generally far less stable than sole ethnic groups, churn that is unsurprising given that multiple affiliations challenge, by definition, the notion of discrete ethnic groupings. Similar rates of change can be seen in the European and Māori, and European and Pacific groups, in that only around two thirds remained consistently in these categories in each intercensal period. For those that changed, the percentage movement into either of the sole constituent groups was about equal. Of those recorded as both European and Māori in 2006, 14.5 per cent identified solely as European in 2013 and 13.7 percent as only Māori.

These findings are consistent with the limited prior research undertaken in other countries with dominant White populations, showing that the White ethnic identification is remarkably stable over time, with very little change compared to minority groups (Liebler et al., 2017; Simpson & Akinwale, 2007; Simpson et al., 2016). While each of these studies all only covered one intercensal period, our study observes ethnic response change across four intercensal periods, and so we can be confident that the general pattern of White ethnic stability is robust, rather than the result of period effects. Having said that, the higher level of change observed between 1991–1996, and 2001–2006 shows that temporal variation in White ethnic responses due to instrumental or political period effects is certainly possible. We are also mindful that level one groupings are likely to be internally diverse and could potentially mask more nuanced patterns of response change within and across specific European ethnic groups.

To control for this, we also examine response changes for a select number of level three European ethnic groups for the period 1991–1996 and 1996–2001. We centre our analysis on the 1996 census because of unique one-off changes to both the question and response options. In addition to a question change that stated ‘tick as many circles as you need to show which ethnic group/s you belong to’, the New Zealand European tick-box was changed to NZ European *or* Pakeha. Pākehā is a Māori

**Table 5** Ethnic group change for selected ethnic groups. New Zealand-born individuals, 1991–1996 & 1996–2001 NZLC census pairs

1991 ethnic grouping/s	1991–1996 Census pair										Total	
	1996 ethnic grouping/s											
New Zealand or Pakeha only	British or Irish only	New Zealand European or Pakeha + British or Irish only	Dutch only	New Zealand European + Dutch only	Australian only	New Zealand European + Australian	Any other European ethnicity/ethnicities	New Zealand European or Pakeha + Māori	Māori only	Ethnicity/ethnicities not listed	Residuals	
New Zealand European only	14,124	49,596	1,056	5,364	144	1,653	5,841	37,002	7,509	25,782	9,360	1,546,056
British or Irish <sup>a</sup> only	462	258	0	0	0	0	12	30	21	54	9	1,065
New Zealand European + British or Irish	99	312	0	0	0	0	15	0	0	96	6	984
Dutch only	261	0	270	303	0	0	12	9	6	36	0	897
New Zealand European + Dutch	399	0	117	618	0	0	96	39	0	36	0	1,314
Australian only	114	0	0	0	51	33	15	12	9	15	0	258
New Zealand European + Australian	57	0	0	0	6	30	9	6	0	9	0	120

Table 5 (continued)

		1991–1996 Census pair										Total	
1991 ethnic grouping/s		1996 ethnic grouping/s											
		New Zealand or Pakeha only	British or Irish only	New Zealand European or Pakeha + British or Irish	Dutch only	New Zealand European + Dutch	Australian only	New Zealand European + Australian	Any other European ethnicity/nicity/ethnicities	New Zealand European or Pakeha + Māori	Māori only	Ethnicity/ethnicities not listed	Residuals
Any other European <sup>b</sup> ethnicity/ethnicities	1,251	45	54	0	0	12	9	1,257	177	114	3,498	0	6,435
New Zealand European + Māori	5,232	93	180	0	0	0	0	21	40,101	8,193	2,064	351	56,247
Māori only	4,470	105	156	6	6	9	0	27	34,122	111,627	5,316	1,143	156,996
Ethnicity/ethnicities not listed <sup>c</sup>	3,030	72	147	9	9	0	9	87	759	1,086	57,021	474	62,691
Residuals <sup>d</sup>	2,187	36	87	6	6	0	0	0	339	276	363	93	3,411
<b>Total</b>	1,406,550	14,826	50,760	1,470	6,351	225	1,743	7,401	112,596	128,832	94,281	11,442	<b>1,836,480</b>

**Table 5** (continued)

		1996–2001 Census pair										Total		
1996 ethnic grouping/s	2001 ethnic grouping/s	New Zealand European or Pakeha only	British or Irish only	New Zealand European or Pakeha + British or Irish	Dutch only	New Zealand European + Dutch	Australian only	New Zealand European + Australian	Any other European ethnicity/ethnicities	New Zealand European or Pakeha + Māori	Māori only		Ethnicities not listed	Residuals
New Zealand European only		1,334,259	417	753	213	645	30	60	1,635	12,834	3,315	4,395	5,343	1,363,902
British or Irish only		12,876	270	153	0	0	0	0	75	159	141	132	120	13,932
New Zealand European + British or Irish		45,246	141	579	0	9	0	0	165	399	117	207	231	47,094
Dutch only		1,005	0	0	297	210	0	0	6	6	9	6	15	1,551
New Zealand European + Dutch		5,370	0	0	285	1,080	0	0	18	39	15	30	39	6,870
Australian only		291	0	0	0	0	15	12	0	6	24	15	6	369
New Zealand European + Australian only		1,779	0	0	0	0	12	51	0	15	9	24	6	1,899
Any other European ethnicity/ethnicities		20,040	96	90	30	183	6	12	1,980	303	117	267	156	23,283



Table 5 (continued)

1996 ethnic grouping/s	1996–2001 Census pair											Total	
	2001 ethnic grouping/s	British or Irish only	New Zealand European or Pakeha + British or Irish	Dutch only	New Zealand European + Dutch	Australian only	New Zealand European + Australian	Any other European ethnicity/ethnicities	New Zealand European or Pakeha + Māori	Māori only	Ethnicities not listed		Residuals
New Zealand European or Pakeha only	25,956	24	39	6	27	0	9	132	<b>66,834</b>	23,409	1,386	609	118,437
Māori only	5,802	0	6	0	0	0	0	27	15,027	<b>102,579</b>	1,788	483	125,721
Ethnicity/ethnicities not listed	17,757	36	21	15	45	0	0	162	2,232	3,399	<b>76,464</b>	501	100,635
Residuals	9,738	12	12	0	0	0	0	33	666	1,224	702	<b>255</b>	12,651
Total	1,480,125	999	1,662	861	2,211	69	150	4,230	98,520	134,349	8,5416	7,761	<b>1,816,350</b>

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<sup>a</sup>British or Irish here means one or more of the level 4 ethnic groups included in the level 3 category British or Irish. This includes: British no further details (nfd), Celtic, Channel Islander, Cornish, English, Gaelic, Irish, Manx, Orkney Islander, Scottish, Shetland Islander, Welsh and Other British (not elsewhere classified)

<sup>b</sup>Includes one or more ethnicities solely within the level 1 'European' group of ethnicities, not otherwise indicated in table

<sup>c</sup>Includes any ethnic groups/group combinations not otherwise listed, including European groups in combination with non-European groups that are not New Zealand European (or Pakeha) and Māori

<sup>d</sup>Includes Don't know/Refused to answer/Repeated value/Response unidentifiable/Response outside scope/Not stated

colloquialism for non-Māori (especially Europeans), with history dating to the early period of non-Māori settlement in Aotearoa New Zealand, although its precise etymological origins or meaning is not necessarily clear (Baker, 1945; King, 1985). In the 1980s and 1990s a large literature explored Pākehā identity within the settler—Māori relationship, although many European New Zealanders have a visceral dislike of the term, some preferring other labels and some rejecting it on the basis it is a *te reo Māori* word (Bell, 1996). An Other European tickbox was also provided separate to the NZ European/Pakeha tickbox, with an arrow to a subsumed question box asking ‘which of these groups?’, with tick-boxes for English, Dutch, Australian, Scottish, Irish, and Other (see "Appendix 2").

This analysis provides an opportunity to test the stability of European responses when the form encourages more granular expressions of European identity (Table 5). For clarity, only New Zealand-born people are included in this table, so that responses in the various other European categories do not include any migrants with direct birth ties to these countries, only New Zealand-born people who indicate the various identities. Levels of change are shown at level three,<sup>13</sup> and rows and columns sum to the total New Zealand-born population in the two included census pairs. The ‘Ethnicity/ethnicities not listed’ category includes any group or combination not otherwise listed, while residuals indicates not stated, don’t know, unidentifiable or similar type responses.

A clear shift occurred in ethnic identification between 1991 and 1996, as more people identified with more than one ethnicity. Identifying with multiple ethnicities has increased in countries across the world, with New Zealand no exception (Rocha & Aspinall, 2020), but changes in the question in 1996 made it more explicit that respondents could indicate more than one ethnicity and this, along with listing other European groups on the form,<sup>14</sup> saw the number of people indicating these identities increase. Of the 1,146,056 New Zealand-born people who identified exclusively as New Zealand European in 1991, 157,428 (10.2%) had a different response in 1996. A majority kept New Zealand European ethnicity and added other affiliation/s, most commonly one or more British or Irish ethnicity or Māori. These changes, not lasting, demonstrate European New Zealanders expressing other identities when given the explicit opportunity to do so. Inasmuch as ‘New Zealand European’ was typically retained they largely confirm the stability of local whiteness.

<sup>13</sup> While the level three categories listed are for the most part identical to the level four category, British and Irish is a level three category which aggregates British not further defined (nfd), Celtic, Channel Islander, Cornish, English, Gaelic, Irish, Manx, Orkney Islander, Shetland Islander, Scottish, and Welsh level four records.

<sup>14</sup> Disaggregating European into various listed groups may relate to criticisms from minority groups, expressed in the 1988 Review of Ethnic Statistics, that while minority groups were enumerated in great detail, Europeans were not subject to the same level of scrutiny (Department of Statistics 1988).

## Discussion

This study addresses two significant gaps in the literature on ethnic identification and boundaries. The first is the lack of research on ethnic response change involving multiple groups and time points. While previous studies have examined intercensal changes in ethnic identification, none (to our knowledge) have been able to track individuals over five census periods. Apart from having access to a unique dataset, Aotearoa New Zealand is an ideal context to study ethnic response change given its high level of ethnic diversity and importance of ethnicity in public policy (Spoonley, 2015). The second gap that we address is the paucity of research on the dynamics of ethnic identification within dominant White groups. Our emphasis on European identification helps meet local calls for more detailed examinations of “how majorities are resisting or adapting to the challenges they face to their dominant ethnicity position” (Pearson, 2008, 52). This question is an increasingly important one in Europe and the Anglo settler states where, as Jardina (2019) has argued, a growing number of White/European groups identify with their whiteness in a politically meaningful way. Understanding the nature and extent of ethnic response change is also of practical importance given the wide-ranging uses of census ethnicity data including for political representation, public policy, resource allocation and population projections (Census 2018 External Data Quality Panel, 2019; Perez & Hirschman, 2009). Statistics New Zealand, for example, explicitly accounts for the impact of ethnic response change in its ethnic population projections (Statistics New Zealand, 2017).

Our results are consistent with studies from a range of contexts which have shown that changes in census-based expressions of ethnicity vary over time and by group. Rates of change were generally lowest for Europeans, consistent with the low levels of change seen in dominant White groups in England and Wales between the 1991 and 2001 and also 2001 and 2011 censuses (Simpson & Akinwale, 2007; Simpson et al., 2016) and in the United States between 2000 and 2010 (Liebler et al., 2017). Rates of change were also relatively low for the Asian group, higher for Pacific peoples and highest for Māori. While this paper does not seek to explain these observed differences, the low rates of change from the Asian category seem to relate to the generally shorter migration history of this group. The Pasifika group has a longer local history and thus opportunity for inter-ethnic partnering. Māori-European inter-ethnic partnering has been common since the very beginning of European settlement and shifts between the sole Māori and other groups should also be seen in light of the Māori emphasis on whakapapa (genealogical connection, see Mahuika, 2019) and inclusive boundaries of Māori identity. That is, regardless of whether an individual has or claims non-Māori ethnicity, he or she is still considered Māori in social, cultural, tribal and political contexts (O’Regan, 1987).

When discussing European ethnic response change, it is useful to talk about shifts at two levels. The first is at the highest level of aggregation. At level one, the European major ethnic group was significantly more stable than other ethnic groupings across all census periods. The exception was 2001–2006 when a large number of Europeans changed their response to ‘New Zealander’, either alone or

in combination. Though this phenomenon seems to have been driven by factors unique to this period (Didham, 2016; Kukutai & Didham, 2009), the predominance of Europeans raises questions around why it was this group that was the most willing—or able—to claim a New Zealander ethnicity. Dynamics of settler colonialism seem to be implicated in this European claim to the centre of the nation: in the past few decades, similar ‘national naming’ by (mostly) settler-European majorities has been observed in Canada (Boyd, 1999), Australia (Australian Bureau of Statistics, 2017) and New Caledonia (Broustet & Rivoilan, 2015). Such ethnic claims serve to frame the national identity in implicitly majoritarian or settler terms.

At another level is movement between categories within the broad European grouping of ethnicities, as in the 1996 census.<sup>15</sup> Undoubtedly key here were the changes in the collection instrument, and the ‘other European’ groups listed. Callister (2004) has argued that including these ‘other European’ categories, distinct from New Zealand European, and including the term ‘Pakeha’, together served to project a sense of New Zealand Europeans as *native* New Zealanders, distinct from others of European ancestry. That many New Zealand-born people indicated these ‘other European’ affiliations underscores many of the themes and dilemmas of local European identity. The apparent ‘culturelessness’ of majority identity may have made such affiliations attractive as ‘symbolic ethnicities’ (Gans, 1979), or they may represent a lingering attachment to imperial British identity. In general terms, the lack of agreement on a ‘New Zealand European’ group name reflects the ongoing ambiguity surrounding the European status in Aotearoa New Zealand.

Both forms of response change, however, do not seem to reflect any widespread conscious changes in ethnic belonging or identity. Instead, they reflect external factors, including changes in the collection instrument in 1996 and public debates and a campaign promoting New Zealander responses in 2006. That these should result in changes to ethnic reporting suggests a group acquiescent to the nudges provided by external factors, and longstanding dissatisfaction/debate around the best label or name for local Europeans, but do not, broadly speaking, seem to reflect any shift in the sense of self amongst this group.

With that said, and without reifying this category, the comparatively high stability in the European group is worthy of further discussion. Stability here is suggestive of a more race-like (i.e., fixed) conception of identity amongst this group than others, although lower levels of multi-ethnic reporting (and thus higher stability) for Europeans is unsurprising given the generally lower level of inter-ethnic partnering amongst majority groups due to the greater availability of potential partners of the same ethnicity (Blau, 1977). For example, with more than half of Māori (53.5% or 320,406 people) identifying with two or more ethnic groups in 2013 (Statistics New Zealand, 2014), it is unsurprising that this group should see high levels of change across groups. While this demographic effect of group size on potential partners means there is likely a larger ‘core’ of European group members of solely European settler descent, it must be noted here how the European category is such a sizable

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<sup>15</sup> The relative stability in the total usually resident population counted in the level 1 European category, 83.2 per cent in 1991 and 83.1 per cent in 1996, would seem to validate this suggestion (Broman 2018).

majority in part because it signifies a group with a wide range of origins.<sup>16</sup> Many groups are subsumed within this broad identity category, with perhaps the most constant shared cultural characteristic being a shared position of colonial privilege: Europeans are positioned, as Elder et al. (2004, 209) argue, at ‘the centre or core of the nation’. In this way, the relative stability of European responses reflects long-standing processes of ‘majority’ boundary-making and keeping in settler-colonial New Zealand.

Our study does have some important limitations. Most notably, not all census records could be linked to the previous census in each New Zealand Longitudinal Census census pair, and records were not missing at random. Attrition in link missingness for individuals precluded us following individuals over more than two census periods and meant we have focused our attention here on four linked pairs separately, which is likely to understate true rates of individual-level ethnic response change. Taken as a whole, however, and although we do not attempt to generalise our findings to other CANZUS countries, we think it reasonable to suggest that the boundaries separating dominant White ethnic groups from non-dominant ones are far less porous than acknowledged, and that in the context of growing diversity these boundaries are not breaking down. At a time where many identity categories appear to be growing more malleable, whiteness seemingly remains rigid. Deconstructing whiteness remains a challenge.

## Appendix 1

See Table 6

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<sup>16</sup> Some have suggested that early European settlers had generally more parochial notions of identity centred in countries, counties or even parishes (Akenson 1990; Wells 2008).

**Table 6** Census *t* usually resident population totals compared to linked (in-study) records, 1991–2013 census pairs

	1996 Census Usually Resident Population			Records linked to 1991 Census			Per cent of 1996 URP included in study		
	Females	Males	Total	Females	Males	Total	Females	Males	Total
0–4	135,489	144,111	279,597	–	–	–	0.0	0.0	0.0
5–14	269,100	283,389	552,486	173,407	179,816	353,223	64.4	63.5	63.9
15–24	266,334	268,410	534,735	163,141	160,316	323,457	61.3	59.7	60.5
25–34	291,873	274,902	566,787	158,573	129,582	288,155	54.3	47.1	50.8
35–44	275,517	264,735	540,255	193,219	168,293	361,512	70.1	63.6	66.9
45–54	214,308	213,606	427,902	162,142	152,580	314,722	75.7	71.4	73.6
55–64	147,663	146,208	293,868	112,499	107,794	220,293	76.2	73.7	75.0
65–84	213,288	170,916	384,207	158,961	128,506	287,467	74.5	75.2	74.8
85+	27,264	11,199	38,463	17,859	7,634	25,493	65.5	68.2	66.3
Total:	1,840,839	1,777,461	3,618,300	1,139,799	1,034,523	2,174,322	61.9	58.2	60.1
Records linked to 1996 Census									
2001 Census URP records									
	Females	Males	Total	Females	Males	Total	Females	Males	Total
0–4	132,108	138,690	270,807	–	–	–	0.0	0.0	0.0
5–14	280,947	295,992	576,939	172,161	179,946	352,107	61.3	60.8	61.0
15–24	251,319	253,746	505,065	147,114	143,439	290,553	58.5	56.5	57.5
25–34	275,967	250,209	526,179	137,454	108,336	245,787	49.8	43.3	46.7
35–44	301,905	281,184	583,080	199,344	165,876	365,208	66.0	59.0	62.6
45–54	247,476	240,483	487,956	180,297	165,312	345,612	72.9	68.7	70.8
55–64	170,802	166,017	336,831	125,646	118,800	244,437	73.6	71.6	72.6
65–84	219,615	182,166	401,790	161,478	134,379	295,857	73.5	73.8	73.6
85+	34,125	14,517	48,642	21,672	9,459	31,137	63.5	65.2	64.0
Total:	1,914,273	1,823,007	3,737,280	1,145,175	1,025,511	2,170,686	59.8	56.3	58.1
Records linked to 2001 Census									
2006 Census URP records									
	Females	Males	Total	Females	Males	Total	Females	Males	Total
0–4	134,694	140,379	275,079	–	–	–	0.0	0.0	0.0
5–14	288,858	303,645	592,497	172,722	180,345	353,058	59.8	59.4	59.6

**Table 6** (continued)

	2006 Census URP records			Records linked to 2001 Census			Per cent of 2006 URP included in study		
	Females	Males	Total	Females	Males	Total	Females	Males	Total
2001–2006									
15–24	283,653	287,526	571,176	163,077	160,086	323,160	57.5	55.7	56.6
25–34	270,897	248,097	519,006	126,132	101,037	227,178	46.6	40.7	43.8
35–44	321,351	293,898	615,249	203,181	164,433	367,617	63.2	55.9	59.8
45–54	278,793	267,363	546,150	199,320	177,138	376,458	71.5	66.3	68.9
55–64	209,631	203,562	413,187	154,881	145,446	300,324	73.9	71.5	72.7
65–84	235,458	203,475	438,936	175,044	150,528	325,578	74.3	74.0	74.2
85+	38,997	17,670	56,667	12,114	25,626	37,737	31.1	145.0	66.6
Total:	2,062,329	1,965,618	4,027,947	1,219,974	1,091,118	2,311,095	59.2	55.5	57.4
2006–2013									
	2013 Census URP records			Records linked to 2006 Census			Per cent of 2013 URP included in study		
	Females	Males	Total	Females	Males	Total	Females	Males	Total
0–6*	201,051	209,709	410,754	–	–	–	0.0	0.0	0.0
7–14*	222,417	232,464	454,887	122,280	126,621	248,901	55.0	54.5	54.7
15–24	289,944	296,505	586,452	157,908	160,371	318,270	54.5	54.1	54.3
25–34	267,834	246,852	514,686	98,544	89,676	188,214	36.8	36.3	36.6
35–44	302,829	270,435	573,273	163,104	130,506	293,607	53.9	48.3	51.2
45–54	312,726	288,912	601,626	207,972	179,205	387,168	66.5	62.0	64.4
55–64	253,089	240,270	493,344	177,297	163,563	340,860	70.1	68.1	69.1
65–84	281,025	252,696	533,721	208,065	184,821	392,898	74.0	73.1	73.6
85+	47,136	26,181	73,323	33,216	19,281	52,503	70.5	73.6	71.6
Total:	2,178,030	2,064,018	4,242,048	1,054,044	1,168,386	2,222,421	48.4	56.6	52.4

Access to the data used in this study was provided by Statistics New Zealand under conditions designed to give effect to the security and confidentiality provisions of the Statistics Act 1975. The results presented in this study are the work of the author, not Statistics NZ or individual data suppliers  
 Confidentiality rules have been applied to all cells, including randomly rounding to base 3. Individual figures may not add up to totals, and values for the same data may vary slightly between different text, tables and graphs

\*These age groupings differ from previous censuses due to the postponement of the 2011 Census to 2013 following the 2011 Christchurch earthquake

## Appendix 2

See Table 7

**Table 7** Ethnic group question in the New Zealand Census, 1991–2013

1991	1996	2001
<p><b>7</b> Which ethnic group do you belong to? Tick the box or boxes which apply to you</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> New Zealand European</li> <li><input type="checkbox"/> New Zealand Maori</li> <li><input type="checkbox"/> Samoan</li> <li><input type="checkbox"/> Cook Island Maori</li> <li><input type="checkbox"/> Tongan</li> <li><input type="checkbox"/> Niuean</li> <li><input type="checkbox"/> Chinese</li> <li><input type="checkbox"/> Indian</li> <li><input type="checkbox"/> Other (such as Dutch, Japanese, Tokelauan)</li> </ul> <p>Please state: _____</p>	<p><b>10</b> Tick as many circles as you need to show which ethnic group(s) you belong to.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> NZ Maori</li> <li><input type="checkbox"/> NZ European or Pakeha</li> <li><input type="checkbox"/> other European → Which of these groups?             <ul style="list-style-type: none"> <li><input type="checkbox"/> English</li> <li><input type="checkbox"/> Dutch</li> <li><input type="checkbox"/> Australian</li> <li><input type="checkbox"/> Scottish</li> <li><input type="checkbox"/> Irish</li> <li><input type="checkbox"/> other</li> </ul> </li> <li><input type="checkbox"/> Samoan</li> <li><input type="checkbox"/> Cook Island Maori</li> <li><input type="checkbox"/> Tongan</li> <li><input type="checkbox"/> Niuean</li> <li><input type="checkbox"/> Chinese</li> <li><input type="checkbox"/> Indian</li> <li><input type="checkbox"/> other (such as FIJIAN, KOREAN) → Print your ethnic group(s)</li> </ul> <p>_____</p>	<p><b>11</b> Which ethnic group do you belong to? Mark the space or spaces which apply to you.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> New Zealand European</li> <li><input type="checkbox"/> Maori</li> <li><input type="checkbox"/> Samoan</li> <li><input type="checkbox"/> Cook Island Maori</li> <li><input type="checkbox"/> Tongan</li> <li><input type="checkbox"/> Niuean</li> <li><input type="checkbox"/> Chinese</li> <li><input type="checkbox"/> Indian</li> <li><input type="checkbox"/> other (such as DUTCH, JAPANESE, TOKELAUAN). Please state: _____</li> </ul> <p>_____</p>
2006	2013	
<p><b>11</b> Which ethnic group do you belong to? Mark the space or spaces which apply to you.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> New Zealand European</li> <li><input type="checkbox"/> Māori</li> <li><input type="checkbox"/> Samoan</li> <li><input type="checkbox"/> Cook Island Maori</li> <li><input type="checkbox"/> Tongan</li> <li><input type="checkbox"/> Niuean</li> <li><input type="checkbox"/> Chinese</li> <li><input type="checkbox"/> Indian</li> <li><input type="checkbox"/> other such as DUTCH, JAPANESE, TOKELAUAN. Please state: _____</li> </ul> <p>_____</p>	<p><b>11</b> Which ethnic group do you belong to? Mark the space or spaces which apply to you.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> New Zealand European</li> <li><input type="checkbox"/> Māori</li> <li><input type="checkbox"/> Samoan</li> <li><input type="checkbox"/> Cook Island Maori</li> <li><input type="checkbox"/> Tongan</li> <li><input type="checkbox"/> Niuean</li> <li><input type="checkbox"/> Chinese</li> <li><input type="checkbox"/> Indian</li> <li><input type="checkbox"/> other such as DUTCH, JAPANESE, TOKELAUAN. Please state: _____</li> </ul> <p>_____</p>	

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