

Louisa Buckingham*

Ethnolinguistic diversity in New Zealand: A socioeconomic analysis

<https://doi.org/10.1515/ijsl-2020-2108>

Abstract: Changes in New Zealand’s immigration policy from the 1980s onwards contributed to growing diversity in the source country of migrants, and has transformed the ethnolinguistic composition of the country’s population in recent decades. The number of people who speak non-official languages is increasing, while the proportion of the English-speaking monolingual population is gradually decreasing. Many immigrants have been unable to integrate into the local labour market at levels commensurate with their qualifications and prior experience, however, and previous studies have noted the institutional and attitudinal hurdles to their integration. This study employs data from five censuses between 1996 and 2013 to explore the socio-economic characteristics of individuals who speak non-official languages (grouped according to the extent of their reported multilingualism), compared with monolingual English speakers and the total population. Competence in non-official languages is increasingly becoming an Asian-related phenomenon in terms of birthplace and ethnic and religious affiliations. The more multilingual cohorts displayed substantially higher levels of educational qualifications than other groups, and a strong increase in the proportion employed over this timespan. Modest income levels nevertheless indicate enduring underemployment. Indicators from the last two census years suggest improved workplace integration of ethnolinguistically diverse individuals.

Keywords: census data, ethnolinguistic minorities, immigration, multilingualism, religion, employment

1 Introduction

New Zealand has experienced greater ethnolinguistic diversification of its population over the last three decades than at any other time in the country’s recorded history. Reforms to the immigration policy from 1986 onwards ushered in a system

*Corresponding author: Louisa Buckingham, University of Auckland, Auckland, New Zealand, E-mail: l.buckingham@auckland.ac.nz. <https://orcid.org/0000-0001-9423-0664>

that prioritized individual merit, in particular, skills, qualifications, and links to the New Zealand workforce (Bedford et al. 2002), to replace the previous preference for a narrow range of source countries (i.e., primarily the UK, Ireland and the US). This change of policy, together with the introduction of additional visa categories for temporary workers and investors, led to increases in the proportion of residents from non-traditional countries of origin (Bryant and Law 2004) and in linguistic diversity, in terms of number of languages and of speakers. The languages with the strongest growth in speaker numbers (e.g., Samoan, Chinese, Hindi, Tongan, Afrikaans and Korean) correspond to sustained or increased migration from the corresponding countries. Immigration has thus contributed to a rising proportion of the population that speaks languages other than English (Statistics New Zealand 2013).

The initial immigration policy reforms occurred within a broader context of profound liberal economic reform, and of advancing trade and political relations with the Asia-Pacific region. The conceptualization of the desired migrant that the immigration policy sought to attract reflected the reigning economic model. The system rewarded entrepreneurial individuals likely to succeed in a competitive business-oriented environment (Cain and Spoonley 2013; MBIE 2018). The points system introduced in 1991 favoured professionals with links to New Zealand-based employers, and with demonstrated English-language proficiency. Migrant labour has become crucial for both long and short-term staffing across a variety of higher and lower-skilled sectors including IT, health, agriculture and construction (MBIE 2013, 2017).

Targeted immigration was also intended to benefit New Zealand's international connectivity by facilitating market access, interpersonal connections and knowledge exchange. Accordingly, New Zealand's trade sector would experience lower transaction costs by benefiting from immigrants' intercultural and linguistic skills, international ties, and knowledge of home country markets and business practices (Bryant and Law, 2004). Subsequent studies did indeed identify a positive association between immigrants and New Zealand's trade with their countries of origin, particularly in the case of countries with a larger migrant stock in New Zealand (Bryant et al. 2004). A later study confirmed that migration stimulates trade (especially imports), and noted that effects were more pronounced for trade with developing countries (Law et al. 2013). Thus, the greater proportion of migrants from non-traditional countries appears to have contributed to New Zealand's trade diversification.

Migration has fuelled urban growth in New Zealand, particularly in the primary international gateway city Auckland. The 2015 World Migration Report (IOM 2015) classed Auckland among the league of "world cities", and—following Dubai, Toronto and Brussels—it was ranked fourth with regard to proportion of foreign-born populace. Previous work has noted the formation of "ethnoburbs" in certain areas of

Auckland, in which evidence of a concentration of Chinese, Indian, Samoan or South African migrants is visible in the commercial linguistic landscape and the presence of cultural institutions (Spoonley and Meares 2011; Xue et al. 2012). The maintenance of the home language and cultural heritage of ethnic minority communities is supported both by the ethnic concentration of specific districts (Ishizawa and Arunchalam 2014), religious practices (e.g., Kolig 2010; Revis 2016), and the transnational social and professional lives typical of many migrants in Auckland (Feng and Page 2000; Friesen et al. 2005; Ip 2006; Liu and Lu 2015).

Similar to Australia (see Colic-Peisker 2011), however, the New Zealand labour market has been unable to absorb many of the highly skilled migrants it has sought to attract, and many have experienced periods of unemployment or underemployment (Bartley 2013; DOL 2011; Li and Campbell 2009). Long-term underemployment and the resultant deskilling can have serious repercussions on the individuals' well-being, and represents an underutilization of human resources (Colic-Peisker 2011; North 2007; Watts and Trlin 1999).

Research into socioeconomic characteristics of ethnolinguistic minorities, in particular migrants, has considered the contribution of language and ethnicity-related factors to the phenomenon of lower income levels or underemployment (e.g., Grin 1996, 2003). A second line of research has considered the economic or professional benefits to employees of being multilingual, whether in languages which have official status in the country or in particular foreign languages. An important motive for this work was to assess whether investment in the acquisition and maintenance of additional languages can be associated with professional opportunities and income-related benefits. Such studies have demonstrated that particular languages are favoured in the job market (Stöhr 2015), with preferences for different languages in the public and private sectors (Limon and Novak-Lukanovič 2017), and in particular economic sectors (Grin et al. 2011).

While previous studies have identified the types of challenges or barriers experienced by ethnolinguistic minorities in New Zealand, in particular skilled immigrants from non-English-speaking backgrounds (e.g., North 2007), the demographic and socioeconomic indicators that characterize New Zealand's multilingual population, and how these have evolved over a period of considerable demographic change, remains unexplored. This study focuses specifically on non-official languages in New Zealand – that is, languages other than English, Māori and New Zealand Sign Language.¹ It thus encompasses languages that were either learnt as foreign languages, as heritage languages, or were learnt as a primary home or community language (otherwise termed mother tongue or first language).

¹ Māori and New Zealand Sign Language have been official languages since 1987 and 2006 respectively. English, while not formally an official language, enjoys *de facto* official status.

I employ data from five censuses between 1996 and 2018 to explore the circumstance of being a speaker of non-official languages and being an English-speaking monolingual in New Zealand across a period of 23 years.² The study considers the socioeconomic indicators that characterize different degrees of multilingualism – that is, cohorts of individuals with competence in a certain number of non-official languages—and compares the results with the English-speaking monolingual cohort. An additional focus concerns constructs which are typically employed to describe identity: birthplace, ethnicity and religion. These indicators provide insight into individuals' origin and cultural orientation, and can also provide some indication of the motivation for acquiring and maintaining their linguistic repertoire. For instance, knowledge of one or more languages may be widespread in an individual's country of origin or valued by the heritage culture. The two main research questions I address are as follows:

- What is the proportion of the population of the following demographic groups? (a) Individuals who know one or more non-official languages; (b) individuals who are monolingual English-speakers.
- How can these individuals be characterized with regard to the following socioeconomic variables: religious and ethnic affiliations, birthplace, education, occupation and income?

2 Multilingual skills and socioeconomic indicators

In adulthood, language acquisition and maintenance requires long-term commitment, considerable investment (time and material resources) and usually entails opportunity costs. In turn, language proficiency may generate benefits with regard to employment outcomes, earnings, and improved life opportunities (or consumption benefits) (Grin 2003). In certain instances, possessing skills in selected languages may provide a competitive advantage for job seekers or greater job security in periods of economic downturn (Grin et al. 2011). In light of this, language competence can be viewed as possessing economic value (Chiswick and Miller 2014).³ The anticipation that competence in a specific language will

² The remaining possible cohort in the New Zealand context, monolingual Māori speakers, was not included due to low speaker numbers, which could compromise anonymity.

³ Unarguably, investment in language learning and maintenance also occurs for non-economic reasons, such as for the intrinsic enjoyment in learning a particular language, belief that the language is an important component of one's identity, or a desire for easier access to cultural goods or speaker groups.

contribute some form of economic or lifestyle benefit is, for many, a strong motivational factor for language acquisition, and for intergenerational language maintenance (Tawalbeh 2018).

Research in different geographic contexts has considered the economic or professional benefits of being multilingual in particular languages. It is important to distinguish between the status of the languages focused on, however. The focus of much research has been on migrants' competence in the dominant language in prominent migrant-receiving countries such as Germany, Spain, the UK, the US, Canada, Australia and Israel. In most cases, a positive correlation between proficiency in the host country's dominant language and earnings was found (Chiswick and Miller 1995). This association is mediated by other variables such as ethnicity or education levels. For instance, ethnic origin can contribute to enduring disadvantage in workplace earnings among migrant workers proficient in the dominant language (Dustmann and Fabbri 2003).

A second line of research has been on competence in non-official or non-indigenous languages, typically English, and the implications this has for income levels. Discrete studies employing sample survey data from German-speaking Switzerland, Israel, Germany and China have shown that strong English competence can usually be associated with higher earnings in certain skilled professions, but the relationship is weaker in low-skilled professions (e.g., Grin 2001; Stöhr 2015). These studies have pointed to a complementarity between (English) foreign-language competence, education levels and occupational skills in these countries.

Less attention has been devoted to migrants' languages (other than English) and the implications competence in these has on employment outcomes. Stöhr (2015) examined the income differentials of migrants and Germans within the German workplace and found no advantage for migrants' languages. However, migrants' attained greater economic advantage from proficient English than their German counterparts, provided this was combined with dominant language proficiency (German). This advantage was limited to particular professions with an international orientation, which Stöhr (2015) attributes to additional advantages that migrant workers may possess such as international experience.

The level of proficiency in the language, and in particular skills (listening comprehension, speaking, reading and writing), will affect the extent to which language competence has beneficial outcomes for individuals (Grin 2003). For instance, according to Grin et al. (2011), foreign-language competence in the Swiss labour market only had economic benefits if a certain proficiency threshold was reached. Other studies have pointed to the particular importance for income levels of literacy skills in the dominant language (e.g., Chiswick 1991; Dustmann 1994). Due to the absence of information about overall or skill-specific proficiency levels

in the datasets used to investigate socioeconomic variables and language competence, however, most studies do not make these distinctions.

Census data may be used to investigate employment outcomes for migrant groups, compared with native-born individuals. Employing a single dataset from the Australian 2006 census, Colic-Peisker (2011) demonstrated that employment outcomes are worse for immigrants from a non-English-speaking background, compared with Australian-born individuals and UK-born immigrants, although a hierarchy of relative disadvantage related to source country was discernible among the migrant groups.

In the only such study undertaken in the New Zealand context, Winkelmann and Winkelmann (2002) investigated the extent to which migrants successfully integrated into the domestic labour market from the perspective of employment status and income. The authors distinguished between migrants from English-speaking and non-English-speaking backgrounds, by using birthplace and self-reported language competence. The initial income disadvantage experienced by migrants (when compared with New Zealand-born individuals) was stronger for Asian and Pacific Island migrants, and diminished in most cases over several decades. Data employed in this study were from three censuses (1981, 1986, 1996) which preceded and followed the immigration policy reforms beginning in 1986. This timespan also coincides with a period of radical economic restructuring initiated in 1984, which resulted in escalating levels of unemployment and socioeconomic inequality, only moderated by a change of government in 1999 (Gamlen 2013). From the mid-1990s, small private enterprise (“ethnic businesses”) run by migrants became more common in New Zealand’s largest urban centres (Cain and Spoonley 2013; Meares et al. 2011; Spoonley and Meares 2011). In light of this changing socioeconomic context, more recent census data might demonstrate better labour market integration of ethnic minorities.

Research into associations between competence in non-official or migrant languages and earnings or occupation are not available within the New Zealand context. The information provided by New Zealand census data does not distinguish between proficiency levels or different linguistic skills (beyond the fairly basic level stipulated in the census question), and cannot therefore be used to identify whether an individual’s proficiency level can be associated with socioeconomic indicators. Nevertheless, qualitative studies have generally affirmed that employees’ competence in certain languages is advantageous in business contexts; this is particularly the case of Chinese for businesses with an international orientation or which target local “ethnic” customers (Meares et al. 2011; North 2007), and for selected Asian and European languages in the tourism sector (Watts and Trlin 1999).

Learning or maintaining one's competence in one or more non-official languages as an adult indicates that individuals engage in social relationships or pursue interests or activities for which knowledge of such languages is advantageous. That is, one's linguistic competence is usually a combined consequence of one's domestic arrangements, social engagement, and professional, educational or leisure pursuits. In contrast to official languages, such languages do not receive direct state endorsement in the New Zealand context, and exposure to such languages through state-sponsored channels is usually marginal or absent. While some may be taught in the secondary school system, the limited provision for foreign-language learning in New Zealand's mainstream schools typically results in modest proficiency levels among school leavers who opt to learn an additional language (East et al. 2012). Moreover, school enrolments in foreign languages have weakened in recent decades, due in part to the emphasis on STEM subjects for university entrance (East and Tolosa 2014).

3 Capturing identities through the census

The census is undisputedly an instrument of political and socioeconomic bearing. The selection and formulation of cultural categories (typically ethnicity, language and religion) entail choices which are sociopolitically motivated and have repercussions for the social groups identified (Kertzler and Arel 2002). These may include the official recognition of particular social groups (with a concomitant extension of legal and political rights), or may affect the distribution of state resources, such as the allocation of funding.

Individuals often possess a degree of agency with regard to how facets of their identity are recorded, and their identity-related affiliations are sensitive to local contextual logic. Owing to the inherently subjective and circumstantial nature of cultural categories, shifts in the immediate sociopolitical environment or a change of audience will influence individuals' perception of the relative saliency of culture-related components of their identity (Kertzler and Arel 2002; Nagel 1994). Nevertheless, individuals' self-identification with cultural categories in a census is circumscribed by the inclusion of predetermined categories, the optional or mandatory nature of these, and restrictions on selecting multiple categories. Thus, both structure and agency are implicated in the construal of individuals' cultural identity by the census (Nagel 1994).

The cultural category "ethnicity" has received considerable attention in research into the use of the census. It is one of the principal categories employed in the formulation of a country's national identity descriptors. Frequently, this category is cross-tabulated with socioeconomic indicators to

establish the relative social advantages of recognized ethnic groups, and thus contributes to decision-making concerning the allocation of state resources. As a social construct, the factors used to determine ethnic affiliation change over time. For instance, Kukutai (2011) records the evolving conceptualization of indigenous Māori identity in the New Zealand census from a blood quantum measure in the early 1900s, to a declaration of ancestry or decent, or tribal affiliation in the early 2000s. In the current New Zealand census, an ethnic group is described as possessing a proper name, and shared elements of common culture, geographic origin and ancestry.

In the last two iterations of the New Zealand census (2013, 2018), the form provided eight pre-determined ethnicities (New Zealand European, Māori, Samoan, Cook Island Māori, Tongan, Niuean, Chinese, Indian), down from the 14 ethnicities listed in the 1996 census, and an open field for self-nominated affiliation. Multiple responses are possible, and a growth in multiple affiliations has been observed across recent censuses in New Zealand. In census output, ethnic group affiliations are individually counted. The same procedure of providing selected predetermined categories and an open field, with a provision for multiple responses, is followed for items concerning religion and language.

The formulation of census items concerning language varies greatly across countries. Items may distinguish between home or mother tongue, additional languages known, and skills (oral language or literacy) and levels of competence. Information derived from queries into whether a person “knows” or “uses” particular languages are hard to interpret, as they give no indication of the respondent’s communicative ability (see Holmes 1997). Greater informational value is attained if the question identifies the skill and the context or purposes of use, as this information can indirectly indicate the level of competence expected. Questions formulated too narrowly risk limiting results. For instance, the Australian census enquires into language(s) used in the home (intended to shed light on intergenerational maintenance), but thereby disregards alternative public domains (Clyne and Kipp 2006; Holmes 1997). Census items concerning language, especially mother tongue, can generate tension, particularly in contexts with a history of conflict related to political rights and the distribution of resources (Duchêne and Humbert 2018). For instance, census results may support dominant linguistic minorities in their bid to assert linguistic rights (Perry 2015).

The New Zealand census has included one item on the knowledge of languages (including the official languages) since 1996 and, unlike the Australian and Canadian census item (see Clyne and Kipp 2006), it has remained unchanged: “In which language(s) could you have a conversation about a lot of

everyday things?” In the formulation of this item, the skill (speaking), the event (a conversation), and the general topic (everyday things) are identified. The latter facet signals a relatively informal or casual register and, indirectly, the level of proficiency. The potential informational value of responses to this question is thus relatively high.

The final identity-related category, religion, may be examined from three different perspectives: affiliation, beliefs and practices. Of these, affiliation is considered of primary public interest and, where this topic is included in the census, this is the focus of the corresponding question (Field 2014). This facet of religiosity does not indicate the extent of religious commitment, and it may merely signal ancestry or empathy (Field 2014).

The efficacy of measuring religious affiliation through the census depends on the formulation of the question item (Field 2014). The question item included in the New Zealand census (“What is your religion?”) suggests that respondents have a religion, and it is more likely to lead respondents to attest a religious affiliation than a question such as “do you have a religion” (Hackett 2014), although the latter has the inconvenience of requiring a follow-up query to determine affiliation. The position of the option “no religion” is also considered to affect results. The position in first place among predetermined options (as seen in the New Zealand census) is found to induce more respondents to select this category (although this result is considered to be more accurate) than when it is placed at the end of listed possible religions (Hughes 2007).

Multiple responses to this question are permitted in the New Zealand census; previous research has suggested that this approach is advisable as mixed-faith identities are increasing among particular ethnic groups (Weller 2004). In this sense, religious affiliation is similar to ethnic identity in that it is often found to be mobile (i.e., individuals may migrate between categories), susceptible to fusions, and influenced by social aspirations and personal interpretations of ancestry.

Monitoring religious affiliations through the census is an important facet of mapping the relative importance of institutionalized religions and the extent of religious diversity on national and local levels (Bouma and Hughes 2014). Census-generated information on affiliation can be cross-tabulated with other census indicators (e.g., ethnicity, language, education, income, place of residence) to deepen understanding of differences between demographic categories. For instance, the introduction of an item concerning religion in the 2001 and 2011 censuses in the UK enabled insight into the socioeconomic disparities between specific demographic groups subsumed into the broader “Muslim” or “South Asian” categories (Hussain and Sherif 2014).

4 Methods

This study employs a specially commissioned dataset from the five recent censuses (1996, 2001, 2006, 2013 and 2018)⁴ and which is limited to the “usually resident population” (i.e., excluding visitors) located in private dwellings on census night.

The census question that enquires into language competence was used to create cohorts of individuals who claim to know one or more non-official language(s). Individuals who claimed to know only English (i.e., who did not stipulate any additional language) formed the “monolingual” cohort. Multilingual people were grouped according to the number of non-official languages they claimed to know. Due to the low numbers of people in the more multilingual cohorts, and the resultant risks this posed to the anonymity of individuals, five non-official languages was the maximum number captured at the initial data extraction stage. When examining the association between the language variable and socioeconomic variables, the cohorts involving between three and five foreign languages were conflated (and relabelled as LG3+), as an additional measure to conserve anonymity. Only when reporting overall numbers, and for the questions permitting multiple responses (ethnicity and religion) are the cohorts disaggregated (see Tables 1–3).

A cross-tabulation analysis was undertaken of these cohorts of multi- and monolingual people using additional census data variables: religion, ethnicity, birthplace, income, occupational status and occupation type. This identified the proportion of people from each cohort with a particular characteristic.

When calculating the proportion of particular variables (e.g., birthplace), the total figure against which the proportion is measured is the total number of respondents for the respective category or question item, rather than the total population. This is due to the existence of empty or invalid responses and the restricted nature of some items. For instance, sections of the census related to education, income and occupation are only completed by individuals over the age of 15. With regard to employment status, the census only collects information from individuals who are in the labour market (whether employed or not) and excludes individuals who, whether due to retirement or incapacitation, do not work.⁵

⁴ The census is held at five-year intervals in New Zealand. A natural disaster necessitated the postponement of the 2011 census until 2013.

⁵ New Zealand has no official retirement age. Seniority cannot be used to exclude individuals from the employment category.

5 Results

This section presents the findings concerning the proportion of the population that knows one or more non-official languages, and the socioeconomic variables (place of birth, education, income and occupation, and religious and ethnic affiliations) that characterize speakers of non-official languages, in comparison to monolingual English-speaking individuals.

5.1 Proportion of mono- and multilingual cohorts

Table 1 presents the number and proportion of the total population in each language cohort in each census year: monolingual English speakers (individuals who affirmed they knew only English in the census language question), and speakers of one or more non-official languages. The latter have been grouped according to the number of such languages they speak, up to a maximum of five (i.e., LG1 to LG5). The raw number of respondents serves to illustrate the diminutive size of some cohorts. Speakers of one non-official language (LG1) constitute the only non-official language cohort of substantial size, and the proportion of this cohort increased by 6.5% in this period. Considerably more modest increments are apparent in most census years across other cohorts. New Zealand nevertheless remains largely monolingual. Despite falling by 7.3% between 1996 and 2013, the proportion of the monolingual cohort relative to the total population rebounded in 2018.

Table 1: Proportion of the total population in each language cohort.

	1996	2001	2006	2013	2018
Mono.	2,720,346 (76.2%)	2,768,934 (74.7%)	2,908,338 (72.9%)	2,990,190 (68.9%)	3,548,469 (74%)
LG1	307,347 (8.6%)	371,199 (10.0%)	479,850 (12.0%)	550,569 (12.6%)	727,347 (15.1%)
LG2	43,245 (1.2%)	58,890 (1.5%)	73,983 (1.8%)	83,601 (1.9%)	113,220 (2.3%)
LG3	9216 (0.25%)	16533 (0.44%)	15837 (0.39%)	15663 (0.36%)	20,922 (0.4%)
LG4	2655 (0.07%)	738 (0.02%)	4269 (0.1%)	3912 (0.09%)	5,076 (0.1%)
LG5	573 (0.01%)	141 (0.004%)	846 (0.02%)	903 (0.02%)	1,356 (0.02%)

5.2 Ethnicity and religion

In this dataset, ethnicity comprises six different categories: New Zealand European, other European, New Zealand Māori, Pacific, Asian, MELAA (Middle Eastern, Latin American, and African). The dataset for religion comprises six categories: Christian, Buddhist, Hindu, Islam, Judaism and Other. The category “no religion” was introduced in the 2001 census (and continued thereafter).

Table 2 displays the mean proportion⁶ of respondents who claim to be multilingual across all census years, according to each ethnicity. The breakdown of ethnic affiliation for the total population is provided for comparative purposes. A high level of multilingual ability is found within two ethnic groups: “Other European” and, in particular, “Asian”. Across the five census years, the mean proportion of individuals in the Asian category who know non-official languages varied from 40.8 to 53.4%.

In comparison, an overall downward trend can be noted with respect to the proportion of individuals in the “Other European” ethnic group. Between 1996 and 2018, the proportion of this ethnic group in each the multilingual cohorts (LG1-LG5) declined by an average of 21%. These trends may be largely explained by the overall proportion of each ethnicity in the entire population. While the “Asian” and the “other European” ethnicities constituted respectively around 5% and 10% of the populace in 1996, by 2019 the “Asian” ethnicity surpassed 15% of the total population, and “other European” had fallen to below 7%. Nonetheless, both ethnicities are over-proportionally represented across all multilingual cohorts.

The “New Zealand European” ethnic group, which represented an average of 64% of the total population across the five censuses, was over-represented in the monolingual cohort and under-represented in all multilingual cohorts. Throughout this period, the proportion of this ethnicity across all multilingual cohorts declined by an average of around 5%.

The “Pacific” ethnicity is strongly represented in the LG1 multilingual cohort. This can be explained by the vitality of Samoan and Tongan, the first and tenth most commonly spoken non-official language in the 2018 census respectively. The relatively high incidence of intermarriage with individuals outside the ethnic subgroup (see Callister et al. 2007) may also contribute to explaining the proportion of the Pacific ethnicity in the LG2 to LG4 cohorts.

Table 3 displays the mean proportion of respondents in each language cohort across all census years, according to each religious category. A majority of respondents across all language cohorts is Christian, in most years constituting between 40 and 60%. Nevertheless, over the five censuses, the proportion

⁶ The mean is displayed for space considerations.

Table 2: Ethnic affiliation, 1996–2018.

	New Zealand Euro	Other Euro	New Zealand Māori	Pacific	Asian	MELAA
<i>Total pop.</i> ^a	64.2%	6.7%	13%	6.6%	9.1%	0.9%
<i>Mono.</i> ^b	79.4%	6%	13.9%	3.9%	3.3%	0.4%
LG1	18.5%	14.1%	2.3%	25.9%	40.8%	3.8%
LG2	18%	20.5%	1.8%	7.4%	53.4%	4.7%
LG3	18.8%	28.8%	2.6%	4.1%	45.6%	4.4%
LG4	18.8%	31.7%	4.1%	5.6%	43.4%	3.5%
LG5	19.4%	35.1%	0.4%	1.7%	42.4%	4.2%

^aThe mean proportion of each ethnicity relative to the total population.

^bThe mean proportion of each ethnicity relative to the total population in each language cohort.

affiliated to Christianity tended downwards across all language cohorts. The strongest decline occurred in the monolingual and LG2 cohorts; in 2018 the proportions were 28% and 20% lower than the proportion in 1996 respectively. In all other cohorts, the proportion was around 15% lower in 2018.

The greatest gains across all cohorts were noted in the categories “No religion” and “Hinduism”. The monolingual cohort registered the largest rise in “No religion” (22%), surpassing the increase in the total population (20%) during this period. The increase in the category “Hinduism” was greatest in the LG2 and LG3 cohorts (around 10%). The mean proportion of the whole population that is affiliated to Hinduism, Buddhism and Islam over the five census years is nevertheless very small (1.6, 1.1 and 0.8% respectively). The proportion affiliated to Buddhism rises with the level of multilingualism. English monolingualism is extremely uncommon among individuals affiliated to these religions.

Table 3: Religious affiliation, 1996–2018.

	Christian	Buddhism	Hindu	Islam	Judaism	Other ^b	None ^b
<i>Total pop.</i> ^a	47.9%	1.1%	1.6%	0.8%	0.1%	2.8%	35.8%
<i>Mono.</i>	51.4%	0.4%	0.6%	0.3%	0.1%	2.2%	40.8%
LG1	52.8%	5.2%	6.6%	3.9%	0.3%	2.5%	25.3%
LG2	40.5%	7.0%	12.7%	4.2%	0.5%	6.8%	25.4%
LG3	42.3%	8.5%	10.0%	5.6%	0.7%	4.4%	23.8%
LG4	43.9%	10.1%	7.4%	4.4%	1.2%	4.5%	23.2%
LG5	39.8%	10.6%	7.5%	4.7%	2.2%	10.1%	25.5%

^aThe mean proportion of each religious affiliation relative to the total population or each language cohort.

^bData for the categories ‘other’ and ‘no religion/none’ comprise the period 2001–2013, as in 1996 these constituted a single conflated category.

5.3 Place of birth and length of residence

This section examines the place of birth that characterizes individuals who know non-official languages, and monolingual English speakers.

Table 4 displays the proportion of individuals in each language cohort that is born in New Zealand and born abroad, preceded by a breakdown for the total population. The vast majority of the monolingual English-speaking cohort is born in New Zealand. The second main region, Europe⁷, is the birthplace of around 8% of this cohort, and this is followed by Asia, the birthplace of around 4% of monolingual English speakers in 2018, rising from 0.6% in 1996. The proportion of the monolingual cohort born abroad increased by 5.5% in this period to reach 17.3%.

In contrast, the majority of individuals in the multilingual cohorts are born abroad. The likelihood of being born abroad increases with the degree of multilingualism; that is, people who speak three or more non-official languages (LG3+) are more likely to be born abroad than those who speak one non-official language (LG1). Nonetheless, all cohorts display an increase in the proportion of people born abroad between 1996 and 2018; the largest increase (9%) occurs in the LG2 cohort.

The main birthplace of individuals in the LG1 cohort was New Zealand in 1996 and 2001 (between 32 and 34%), but this was replaced by Asia from 2006 onwards. The Pacific Islands was the third most important birthplace remains for this cohort, despite the decline from 22% in 1996 to 16% by 2018.

The importance of Asia as the most frequent birthplace for the LG2 cohort (between 35 and 57%) increased across each census year. The proportion of individuals in this cohort born in New Zealand and in Europe was very similar (between 23 and 14% across all census years) and displayed a downward trend. The birthplace of the LG3+ cohort was primarily Asia (between 40 and 55% across most census years), followed by Europe.

A second tendency that may be noted concerns the length of residence in New Zealand of individuals born abroad. The dataset portions time periods into approximately a decade (≤ 9 ; 10–19; 20–29; 30+ years). A majority of people across all non-official language cohorts had been residents for ≤ 9 years at the time of each census. The mean proportion of each cohort resident for this time period across all five census years ranged from 37 (LG1) to 45% (LG2). That is, close to half of the more multilingual cohorts had been resident in New Zealand for less than a decade at the time of each census. Nevertheless, these figures were gradually falling across each census year, and the second highest time period, 10–19 years, increased in all cohorts across all years.

⁷ Other than New Zealand and Australia, place-of-birth data are broken down by regions only.

Table 4: Place of birth: New Zealand and abroad.

	1996		2001		2006		2013		2018	
	NZ	Abroad								
<i>Total pop.</i>	82.6%	17.4%	80.6%	19.4%	77.1%	22.9%	74.8%	25.2%	70.5%	28.3%
Mono lingual	88.2%	11.8%	87.8%	12.2%	85.8%	14.2%	84.5%	15.5%	82%	17.3%
LG1	34%	65.1%	32.2%	67.2%	28%	71.2%	26.4%	72.5%	25.3%	73.1%
LG2	23.5%	76%	21.1%	78.4%	16.5%	83%	15%	84.4%	14%	85%
LG3+	17.4%	82%	19%	81%	14%	86%	12%	87.4%	11.0%	88%

The identity of individuals comprising the monolingual and non-official language cohorts may be summarized as follows: The English-speaking monolingual population (encompassing around three-quarters of the total population), is primarily born in New Zealand and identifies with the New Zealand European category. Christianity remains the main religious affiliation, although the majority identified with ‘no religion’ in 2018.

Individuals in the non-official language cohorts are primarily born abroad (the tendency increases with the level of multilingualism) and a substantial proportion has been resident for less than a decade. Asia and Europe are the most common birthplaces and corresponding ethnicities. The Pacific Islands is frequent only for the LG1 cohort. The main religious affiliation is Christianity among the multilingual cohorts, although its importance is declining steadily; the proportion affiliated to Hinduism, Buddhism and Islam increases, although their share of the total population remains minor. The comparatively small increase of “no religion” over this period indicates that religious affiliation in the multilingual cohorts remains important and relatively stable.

5.4 Socioeconomic indicators: Education, employment and income

In this section, I examine the following socioeconomic indicators in relation to the English-speaking monolingual and the multilingual cohorts: level of formal qualifications, employment status and income level. As previously established, a majority of multilingual people is born abroad, and a considerable proportion of these have been resident for under a decade. This suggests that, for many, much or

all of their formal education, and perhaps initial work experience, were attained abroad. According to previous research, this may disadvantage them in the local labour market, due to employers' preference for employees with local work experience.

5.4.1 Education

This analysis sought to identify whether multilingual people are more likely to possess higher levels of education than monolingual people. For this purpose, three levels of education were created: Low (L): no qualifications; Medium (M): secondary school qualifications; High (H): post-secondary school qualifications.

Table 5 shows the proportion of each cohort in each of the three education categories. In all cohorts, and in the total population, qualification levels improved between 1996 and 2018; that is, the proportion in the 'low' category was smaller and the proportion in the 'high' category was greater. The LG2 and LG3+ cohorts possessed the highest proportion of individuals with post-secondary qualifications (surpassing 50% in almost every year). In contrast, the English monolingual cohort possessed the lowest proportion of individuals with higher levels of education.

5.4.2 Employment status and occupation

In this section, I first examine whether speakers of non-official languages are more likely to be in paid employment than monolingual English speakers; I then consider the type of employment held by each cohort. Although monolingual people tend to possess the advantage of being born in New Zealand, the higher level of educational qualifications of multilingual people might mean that a higher proportion is in paid employment or in the more skilled occupational sectors.

Two census categories, "employed (paid)" and "unemployed", were used to examine the first query.⁸ Table 6 displays the proportion of individuals in each category in each census year. The proportion of individuals in the English monolingual cohort in paid employment is slightly higher than the total population (around two-thirds of this cohort is in this category across all census years), and in 1996 and 2001 the proportion of individuals in paid employment was highest in the monolingual cohort than any other. From 2006

⁸ The two remaining categories, "employed unpaid" and "not in labour force", are not displayed for reasons of space.

Table 5: Educational qualifications.

	1996			2001			2006			2013			2018		
	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Total pop.	34%	32%	34%	27%	40%	33%	30%	34%	36%	21%	40%	39%	18%	38%	43%
Monolingual	34%	32%	34%	29%	39%	32%	31%	36%	34%	22%	40%	38%	20%	39%	41%
LG1	29%	34%	37%	18%	48%	34%	22%	27%	51%	15%	43%	42%	13%	37%	50%
LG2	15%	33%	53%	10%	43%	47%	14%	23%	63%	9%	34%	57%	7%	27%	66%
LG3+	9%	30%	61%	7%	39%	54%	10%	18%	72%	5%	28%	67%	5%	21%	74%

Table 6. Employment status.

	1996		2001		2006		2013		2018	
	Unem.	Emp.								
<i>Total pop.</i>	5.1%	59.3%	5.1%	60.9%	3.5%	64.3%	4.8%	61.8%	4.0%	63.8%
Monolingual	4.4%	60.9%	4.3%	63.1%	3%	66.3%	4.2%	63.5%	3.7%	63.8%
LG1	7.9%	52%	7.2%	53.1%	5%	57.7%	6.1%	57.2%	4.6%	65.9%
LG2	8%	55%	7%	56.2%	4.7%	63.5%	5.6%	63.9%	12.2%	63.4%
LG3+	7.2%	57.9%	7.4%	62.3%	4%	68.5%	5.5%	66.1%	4.0%	69.6%

and 2013 onwards, however, the LG2 and LG3+ cohorts match or exceed the proportion in paid employment of the monolingual cohort. Nevertheless, a consistently lower proportion of the monolingual cohort is unemployed across all years.

With respect to the trend for each cohort across the censuses, the proportion of speakers of non-official languages in employment increased at a faster rate than was the case of the monolingual group. Thus, the proportion of those employed in cohorts LG1, LG2 and LG3+ increased at a rate of 27, 15 and 20% respectively between 1996 and 2018, compared to a rate of increase of 5% for the monolingual cohort.

The second query concerned the type of occupation held by monolingual and non-official language cohorts. Nine occupational categories were provided in the initial data extraction. I reduced these to three (H, M, L) to reflect loosely the level of formal education required by the professions. The highly skilled category (H) comprises professions which usually require a university-level qualification (e.g., administrators, professionals, technicians); the mid-category (M) comprises professions which do not usually require university-level qualifications (e.g., clerks, service, sales); the third category (L) comprises primarily manual work, such as occupations in the primary sector (agriculture and fisheries), trades and machine operators, and “elementary” occupations (e.g., road worker).

Table 7 displays the proportion of individuals in each cohort in each occupational category, preceded by a breakdown for the total population. The three figures represent the three categories: L, M, H. Two clear trends can be observed. First, the proportion of individuals in the category of highly skilled professions (H) is greater in the non-official language cohorts than in the monolingual cohort and the total population. The more multilingual, the greater the proportion in the H category. This is true across all census years. Conversely, monolinguals are more likely to hold L-category professions than individuals in the multilingual cohorts.

Table 7: Occupation category.

	1996			2001			2006			2013			2018		
	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
<i>Total pop.</i>	36%	29%	36%	32%	28%	39%	31%	26%	44%	28%	25%	48%	26%	23%	51%
Monolingual	36%	29%	36%	33%	28%	39%	31%	26%	43%	28%	25%	47%	27%	22%	51%
LG1	32%	30%	38%	28%	30%	42%	27%	29%	45%	24%	28%	49%	23%	26%	51%
LG2	23%	27%	51%	20%	28%	52%	19%	27%	54%	17%	26%	57%	17%	25%	58%
LG3+	17%	23%	60%	12%	23%	64%	14%	24%	63%	12%	21%	67%	13%	20%	68%

5.4.3 Income level

This final section compares levels of income of individuals in paid employment in the monolingual and non-official language cohorts.

From the initial six income levels provided in the initial data extraction, I created three categories to reflect the following income levels: L: $\leq 40,000$; M: $40,001-70,000$; H: $\geq 70,001$.⁹ Table 8 displays the proportion of people in each category; each of the three figures represents an income level (L, M, H).

The majority of individuals across all cohorts are in the lower income category. Individuals in the LG1 cohort are particularly disadvantaged. The proportion of individuals in the lower income category exceeds 70% in three census years.

The proportion of English-speaking monolingual people in the middle and high income categories is slightly higher than the figures for the total population and the LG1 and LG2 cohorts across almost all census years. That is, incomes for monolinguals tend to be higher despite lower levels of education and the larger proportion of individuals in the “low” occupational category. Only in the LG3+ cohort is there a higher proportion of individuals in the high income category than the monolingual cohort. The difference is relatively minor, however, and does not reflect the substantially greater proportion of individuals in the LG3+ cohort in the higher occupational and education categories (see Tables 5 and 7).

6 Discussion and conclusion

Major migration policy changes from the late 1980s onwards that replaced the country of origin preference with a focus on qualifications and expertise contributed to “a profound transformation” of New Zealand society (Bedford et al. 2002: 86). The resultant increased ethnolinguistic diversity of immigrants, concomitant with sustained emigration of native-born individuals (Bedford et al. 2002), has contributed to an increasing proportion of people in New Zealand who know non-official languages. That is, the proportion of monolingual English speakers consistently fell between 1996 and 2013 (albeit rising again in 2018).

The notion of an intensified form of demographic diversity characteristic of many migrant-receiving countries in the early 21st century was intended to capture a multiplicity of social attributes (Vertovec 2015). From the perspective of the migrant, an important motive for transnational mobility is the desire to improve

⁹ Figures are in New Zealand dollars. The median income was NZ\$31,800 in 2018.

Table 8: Income.^a

	1996			2001			2006			2013			2018		
	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Total pop.	67%	25%	7%	69%	19%	12%	59%	23%	18%	64%	23%	14%	59%	24%	17%
Mono.	66%	27%	8%	68%	20%	12%	57%	24%	19%	62%	23%	15%	58%	24%	18%
LG1	74%	20%	6%	76%	15%	9%	67%	20%	13%	71%	19%	10%	62%	24%	14%
LG2	69%	22%	9%	72%	16%	12%	61%	22%	18%	66%	21%	13%	56%	26%	18%
LG3+	62%	26%	12%	65%	16%	19%	54%	25%	20%	57%	24%	19%	50%	25%	25%

^a Income is Consumer Price Index-adjusted to represent purchasing power in 2018.

socioeconomic outcomes of the individual or family. Thus, an inquiry into the trajectories, or the degree of social mobility of particular demographic groups needs to consider the interplay between identity-related features such as language, ethnicity and birthplace, and social indicators such as education and employment.

This investigation into the characteristics of individuals who know non-official languages or who are monolingual English speakers uncovered changes in the cultural identity and the socioeconomic composition of this population between 1996 and 2018. The vast majority of multilingual individuals were born abroad (tendency increasing), and an average of 41% in this time period had been resident for less than a decade. Results for multilingual people were contrasted with those for individuals who claim to know only English. Over 80% of these monolingual individuals were born in New Zealand and the majority identified with the New Zealand European ethnicity. Individuals born in Europe constituted the largest minority of English-speaking monolinguals; a reflection of sustained immigration from the UK (MBIE 2018).

Knowledge of non-official languages is a progressively “Asian”-influenced phenomenon. That is, the more multilingual cohorts (speakers of two or more non-official languages) are increasingly dominated by individuals who identify with the Asian ethnicity, and whose place of birth is in the Asian region. In recent years, the main source countries of migrants in the skilled and temporary worker categories include countries where multilingualism is relatively widespread (e.g., India, China, Philippines) (MBIE 2018), and languages commonly used in these countries were among the strongest growing non-official languages in New Zealand between 1996 and 2018 (Statistics New Zealand n.d.). This constitutes a change from the earlier census years of 1996 and 2001, where “other European” ethnicity and born in Europe was the dominant profile of individuals with competence in non-official languages.

Multilingual cohorts in this study tended to be affiliated to a religion. They contribute to the maintenance of faith-based cultural practices in New Zealand, as the growth towards “no religion” is considerably slower than among monolingual English-speaking individuals. The maintenance of Christianity as the most common affiliation is supported by the growth of migration from countries such as South Korea and the Philippines (see Park and Anglem 2012), but eastern religions (Hinduism and Buddhism) are the fastest-growing. The opportunities for multilingual services in religious institutions are common in the main urban centres of New Zealand, and these constitute an important domain for the maintenance of language and cultural practices by minority communities (Barkhuizen 2006; Kollig 2010; McCaffery and McFall-McCaffery 2010; Park and Anglem 2012).

Evidence was found for underemployment in the multilingual cohorts, apparent in the lower proportion of individuals in paid employment and lower income levels, despite the higher level of qualifications. This is a well-documented experience of migrants in New Zealand, particularly those from non-traditional migrant source countries (e.g., Li and Campbell 2009), despite an immigration policy expressly designed to attract migrants with the skills and experience required by the local labour market. A large number of individuals in the skilled migrant category is employed in sectors such as hospitality, retail and agriculture, and occupations in these sectors typically only provide modest remuneration levels (MBIE 2017), irrespective of the individual's qualifications.

Additionally, support was found for the socioeconomic disadvantage experienced by Pacific Island migrants identified by Winkelmann and Winkelmann (2002) and more recent studies. For instance, Ishizawa and Arunachalam (2014) found that Samoans (New Zealand's largest Pacific Island community) were more likely to reside in socioeconomically deprived areas of Auckland, and the community possessed a high ratio of first language maintenance (relative to other large ethnic minority groups). In the current study, the LG1 cohort, the only cohort with a high proportion of individuals identifying with the Pacific Islands (by ethnicity or birthplace), displayed a higher proportion of individuals in the low income category and a lower proportion of individuals in paid employment than was found for any other cohort or the population as a whole, across almost all census years (although the 2018 figures displayed some improvement).

In contrast, previous research has shown that the employment and income outcomes of UK-born migrants, New Zealand's traditional primary migrant source country, are not different from native-born individuals (Winkelmann and Winkelmann 2002). This outcome is assisted by their (usually) English native-speaker status, their cultural proximity to the New Zealand European population, and the relative ease with which the official recognition of professional qualifications from countries such as the UK occurs. As the second main birthplace of the monolingual cohort is Europe, the positive employment outcomes reported in Winkelmann and Winkelmann (2002) contribute to explaining the somewhat stronger likelihood evident in the present study of English-speaking monolingual people to be in paid employment than individuals in the more multilingual cohorts.

Poorer employment and income outcomes of most multilingual cohorts, when compared to the monolingual cohort, cannot be attributed solely to the effects of prejudice in the labour market. Niches of "anti-Asian" or "anti-immigrant" prejudice certainly endure, and the Asian ethnic group is more likely to experience race-related discrimination (particularly in work-related contexts) than other ethnicities in New Zealand (Statistics New Zealand 2012). However, discrete public surveys have also identified a largely accepting attitude towards New Zealand's

growing Asian-heritage populace, and thickening ties with Asian economies (Butcher et al. 2015; DOL 2011). The immigration category of new arrivals also has an impact on work-related outcomes. For instance, principal applicant economic migrants typically experience better work-related outcomes than secondary applicants, or those with refugee or family reunification status (Chiswick and Miller 2014; Colic-Peisker and Tilbury 2006; DOL 2011). New Zealand receives refugees from countries with traditionally high levels of societal multilingualism but low levels of English-language ability, and the difficulties in transferring qualifications hinder work-related integration (Marlowe et al. 2014).

The overall rise in levels of education, employment and income among the more multilingual cohorts over the last two census years suggests that individuals with this characteristic are becoming better situated in mainstream New Zealand society, at least in large urban centres such as Auckland. The increase in the proportion in the higher income category in the LG2 and LG3+ cohorts is comparable to the increase found for the total population, but the proportion in paid employment increases at a faster rate. In this sense, the results from this study reflect an increase in the proportion of ethnolinguistic minorities in the “middle-class” category, as identified in Colic-Peisker (2011).

While many who identify as ethnolinguistic minorities continue to experience obstacles in securing employment at levels commensurate with their qualifications and pre-immigration work experience, many nonetheless appear to be successful in reorienting their professional lives towards opportunities offered by the local labour market. Chinese and Indian ethnic minorities in particular display a strong propensity to engage in entrepreneurial activities (de Vries et al. 2015; Spoonly and Meares 2011). This expansion of small businesses managed by ethnic minorities in particular urban localities enables more recent migrants, particularly from non-English-speaking backgrounds, to benefit from co-ethnic relational networks for employment or entrepreneurial purposes (Cain and Spoonley 2013). Although this occupational category does not necessarily favour high earnings, it provides an opportunity to acquire local work experience and improve English language skills.

With the growing ethnolinguistic diversity of New Zealand’s population, concomitant with greater socioeconomic diversity of recent migrants to New Zealand, concrete state-sponsored measures to support the ongoing socioeconomic integration of ethnolinguistic minorities are warranted (Colic-Peisker 2011), in particular English-language support and re-training for the local workforce, in parallel with measures aimed at addressing institutional and attitudinal impediments to employment (Bartley 2013).

Acknowledgments: I gratefully acknowledge the assistance of the COMPASS Research Centre, Faculty of Arts, University of Auckland, in obtaining access to,

shaping, and analysing the census unit-record data for the Statistics New Zealand data between 1996 and 2018.

Disclaimer: Access to the census 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.

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