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Churning races in Canada: Visible minority response change between 2006 and 2011

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Abstract

Why do most people have stable responses to census race questions, while some do not? Using linked Canadian data, we examine personal, social, and economic characteristics that predict response stability as White or as one of six large visible minority groups, versus a change in response to/from White or to/from another visible minority group. Response change rates in Canada are generally comparable to those in the US, UK, and New Zealand. Likely reflecting the centuries-old hegemony of Whites in these countries, White is the most stable response group in Canada as well as the US, UK, and New Zealand. Multiple-race response groups are among the newest and least stable response groups. Social statuses and experiences (mixed ethnic heritage, immigration status, and exposure to own-group members) are generally more predictive of race response stability and change than economic (income level and change in income) or personal statuses (education, age). This highlights the socially-constructed nature of race group boundaries. Joining and leaving a group are often predicted by the same status/characteristic and in the same direction, hinting that the status/characteristic adds complexity to the race-related experiences of constituents.

Keywords

Race response change; visible minority groups; Canada; census; National Household Survey

1. Introduction

People of different races have different experiences with virtually every social system and interpersonal interaction. To track these differences and efforts to alleviate them, most federal agencies collect data about race. Unfortunately, reporting something as complex as an identity in a simple, closed-ended question can be challenging.

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Among the challenges to working with data on race is that some people give different race responses at different times. Why do some people give stable responses to questions about race, while others do not? In this research, we leverage Canada's nationally-representative large-scale linked census data. These data are the first to be able to approach questions of *why* responses change at a national level. We address four hypothesized social, economic, and personal processes that may explain race¹ response change. Are individuals with mixed heritage or ties to another country more likely to change responses to a race question? If so, response changes may reflect identities that do not fit within the local set of socially-constructed race group definitions and are more complex than the one-time question can capture. Do older people and those with more education answer more consistently than younger or less educated people? If so, perhaps age and schooling have developed the individual's knowledge, understanding, and acceptance of identity and self-categorization. Are those with rising economic standing likely to start reporting themselves as White, while those with falling economic standing changing their response to a non-White group? If so, definition of who "belongs" in which race category may be driven by broad stereotypes and enforced by outsiders. Or are people changing responses to be more similar to those around them (or keep a stable response to stay similar to nearby others)? If so, perhaps response change is related to feelings of group belonging and assumptions by nearby others that are based on contextual clues.

We address these questions for Canada's "visible minority" groups – groups which were specifically named for the purpose of addressing social inequalities – and Canada's White group. We use a very large nationally-representative data set with information about each individual at two points in time (2006 and 2011). We first highlight the extent to which individuals were consistent in their response to the visible minority question, as well as showing variation in response change across groups. By reporting response change in each Canadian visible minority group across the five years, we expand knowledge about race in countries settled by European colonists.

We then turn to questions of *why* responses change. In order to understand more about the social processes involved, we use uniquely-suited data and multivariate models to find predictors of response stability and change by adults who reported White or one of six visible minority groups in 2006, 2011, or both. The data are linked at the individual level and are drawn from long questionnaires that include substantially more information than has been available to prior researchers.

2. Background and Prior Research

2.1 On the Extent of Racial, Ethnic, and Indigenous Response Change

Prior research that was inclusive of all racial/ethnic groups used linked census data² to show that response change is widespread in the US (Liebler et al. 2017), England and Wales (Simpson & Akinwale 2007; Simpson et al. 2016), and New Zealand (Brown & Gray 2009;

¹We use the word "race" as a general synonym for "visible minority" because much of the relevant literature is written about race. However, the words are not exact synonyms. As discussed below, visible minorities are "persons, other than aboriginal peoples, who are non-Caucasian in race or non-white in colour" (Statistics Canada 2010, 116). A person who self-reports being aboriginal is not asked whether they are a visible minority or White; see Figure 1.

Carter et al. 2009). Canada's political and social histories are relatively similar to these previously studied countries (e.g., see Lipset 1990), which increases the relevance of our results to scholars of race focused on England and its other former colonies where linked long-form data are not available.

A few themes have emerged from the prior work we describe in this section. In-flows and outflows ("churn") of people identifying with each race or ethnic group are sometimes large, though similarly-sized countervailing flows can give the cross-sectional illusion of a stable population. There is relative stability of White responses. And there are especially high rates of response change among people who report more than one group; in other words, many people who report multiple groups at one point in time do not do so when asked at another time.

England and Wales: In the first effort to use linked data for this purpose, Simpson and Akinwale (2007) investigated response change in England and Wales between 1991 and 2001. They found that: "Membership of the White category is stable; between seven and nine per cent of those recorded in an Asian group in 1991 have changed to a different group by 2001; 23 per cent of each of the Caribbean and African groups have changed" (Simpson & Akinwale 2007:185).³ In a follow-up paper on the decade 2001 to 2011, Simpson and colleagues (2016: Table 2) found that "White British" remained a very stable category with 99 percent stability, the Asian groups had three to 12 percent response change, and the Black groups (Caribbean and African) became more stable with 17 to 19 percent response change. English and Welsh people in "mixed" categories and "other" categories had the highest levels of response change, with 24 to 70 percent giving a different response in 2011 than they had in 2001.

New Zealand: Brown and Gray (2009) used linked data from the 2001 and 2006 New Zealand Censuses to show some response change between the "New Zealander" response category and the M ori, Pacific, and Asian groups such that "each of the M ori, Pacific, and Asian groups lost population to the sole-New Zealander group as a result of ethnic mobility. On an annual basis this equates to a loss to these groups of between 0.2 to 0.4 percent" (Brown & Gray 2009: 34). Response changes in the reverse direction were not as common.

United States: In the first study using linked US census data to study response change for all race and ethnic groups, researchers estimated that 8% of the population gave a different general race response in 2010 than in 2000 (Liebler et al. 2014). A few US response categories were particularly stable with less than 10% changing responses: non-Hispanic White, non-Hispanic Black, non-Hispanic Asian, and Hispanic (if race responses are disregarded). The other response groups – American Indian, Pacific Islander, all Hispanic race groups, and all multiple-race groups – saw substantial membership change across the

²Early research on response change used cross-sectional demographic information and logical inference because linked data were not available. Research focused on the "American Indian" response category in the US, finding a large net in-flow to the category (e.g., Passel 1996). Recently, linked census data has allowed studies of in-flow to and out-flow from indigenous response categories in Canada (Caron-Malenfant et al. 2014; Durand et al. 2016), Australia (Biddle & Crawford 2015; O'Donnell & Raymer 2015), New Zealand (Brown & Gray 2009), and the US (Liebler, Bhaskar, & Porter 2016).

³Percent response change is the percent of people who gave a response in year X or year Y who did not give the same response in both years.

decade (Liebler et al. 2014, 2017). Like in the UK, multiple-response groups were the least stable.

2.2 Canada's Racial Landscape

2.2.1 Visible Minorities and Immigrants in Canada—As a British colony until the 20th century, Canada's immigration policy prioritized Europeans and excluded people from other parts of the world, particularly Asia (Boyd & Vickers 2000). Dramatic changes in immigration policy in the 1960s opened the possibility of immigration to people from around the world who had particular skills (including education and language) or who were related to skill-based immigrants (Boyd & Vickers 2000). In 2006, about 16% of Canada's population and 75% of new immigrants identified as visible minority (Statistics Canada 2006). In 2011, there were about 6 million visible minorities in Canada – over 19% of the total population – and almost two-thirds were immigrants to Canada (Statistics Canada 2011). Chinese, South Asians, and Blacks are the three largest visible minority groups, comprising 61% of the visible minority population in 2011 (Statistics Canada 2011). Note that although there were some Black Canadians – mostly former US slaves – before the new immigration laws, the large majority of Black Canadians today are immigrants or second-generation immigrants, primarily from the Caribbean (Attewell, Kasinitz & Dunn 2010).

In contrast to other countries with high levels of new immigrants, Canada has “managed to maintain a consistently positive public consensus around its immigration system” (Heibert 2016:1). Canada's immigrants report a strong sense of belonging in Canada (Hou, Schellenberg, and Berry 2017). Nevertheless, immigrants and visible minorities are concentrated in urban and suburban areas, particularly in Ontario, and a study of visible minority segregation in large metropolitan areas shows substantial residential segregation, though lower levels than are often found in the US (Balakrishnan, Maxim & Jurdi 2005). Like many countries, Canada is becoming more diverse through both immigration and intermarriage (Hou et al., 2015); mixed-heritage individuals a substantial part of the population and are likely to become even more common.

2.2.2 The Visible Minority Question—We are studying answers to the “visible minority” question in the census and NHS. The Canadian federal government defined “visible minority” in the 1995 Employment Equity Act as: “persons, other than aboriginal peoples, who are non-Caucasian in race or non-white in colour” (Statistics Canada 2010, 116). The Employment Equity Technical Reference Papers, prepared by Employment and Immigration Canada in 1987, specified the following visible minority groups: Chinese, South Asian, Black, Filipino, Latin American, Southeast Asian, Arab, West Asian, Japanese, Korean and other visible minority groups, such as Pacific Islanders (Statistics Canada 2010, 116). In both 2006 and 2011, the ten named groups each had a mark-in box and there was also a mark-in “White” category;⁴ these 11 groups are sometimes called “population groups.”⁵ Multiple responses to the visible minority question were allowed and recorded in

⁴The 2006 and 2011 questions are identical except that the order of groups was changed in 2011 based on the ranking of group population sizes, as counted in the 2006 census.

⁵Case counts are sufficient to study seven groups in our multivariate work: White, Chinese, South Asian, Black, Latin American, Arab, and West Asian.

the data since 1996 (Stevens, Ishizawa & Grbic 2015).⁶ To learn more about the visible minority question, see Statistics Canada's "Visible Minority Population and Population Group Reference Guide."⁷ For more detailed discussion of Canadian race and ethnicity measurement in international context, see Morning (2015), Roth (2017), and Stevens et al. (2015). We show the 2006 and 2011 Canadian visible minority questions in Figure 1.

The Canadian visible minority question is relatively similar to the US question on race. Both the visible minority question in Canada and the race question in the US include a mix of categories based on color/race group (e.g., White or Black), specific country of origin (e.g., Chinese or Korean) and world region (e.g., Arab, Latin American, or Pacific Islander).⁸ The "White" category in Canada is similar to the "non-Hispanic White" group in recent US censuses, except that the US concept includes Arab and West Asian people in the White group.⁹ Canada has a separate Latin American category in the visible minority question, but in the US, Latin Americans are identified through a separate Hispanic/ Latino origin question; about half of US people who report Hispanic or Latino origins report a race of White (Rios et al. 2014). Thus the Canadian "White" group has less diversity than the US "White" group.

Because of conceptual clarity, categories that reference a particular country (e.g., Chinese, Filipino) rather than a region (e.g., Latin American, South Asian) or color (Black, White) may have more stable response populations. In the UK, this was shown to be true especially for people born in the country or region named by the category (Simpson & Akinwale 2007). On the other hand, the broad categories may have lower response change in cases where someone else is filling out the form. In the US, proxy respondents were able to successfully categorize others into a few broad race categories (White, Black, Asian) but less able to provide the detail that would be required to distinguish among the several Asian category options on the Canadian forms (Porter et al. 2016).

2.2.3 Census Responses in Relation to Identity—Response to a census question will likely be related to a person's identity but is not an ideal measure. This connection is fuzzy for several reasons related to the complexities of race; see Roth (2016) for a useful overview. First, internal understandings of race are much more complex than can be articulated in a bounded, discrete question such as this one (e.g., Rockquemore and Brunnsma 2004). Second, because the data will be used for policy and governance, respondents may lean on a political or legal version of identity (e.g., Robertson 2013) rather than a racial identity per se. Third, census responses could be provided by someone besides the individual being described. In most cases, the form is filled out by one or more people in the

⁶Both questionnaires further provided the following instructions: (1) Population group should not be confused with citizenship and nationality, and (2) For persons who belong to more than one population group, mark all the groups that apply.

⁷2006 Census Catalogue no. 97-562-GWE2006003. http://www12.statcan.gc.ca/census-recensement/2006/ref/rp-guides/visible_minority-minorites_visibles-eng.cfm

⁸In both years, three regional area groups were listed with examples: South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.); Southeast Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian, etc.); West Asian (e.g., Iranian, Afghan, etc.).

⁹Using the ethnic origins question, Statistics Canada found that "The most frequently reported origin among Latin American visible minorities was Spanish. Among the Arab visible minorities, it was Lebanese. It was Iranian among the West Asians..." (Statistics Canada 2006, 5).

household, who presumably know the individual well and might discuss the question before responding.

Whether or not responses are a strong indication of identity, we argue that it is worthwhile to study response change. Responses such as those given on the visible minority question are used for a huge variety of analytic, social justice, and commercial purposes, usually with the assumption that responses are stable. Our hypotheses about causes of response change are situated in literatures about racial identity. If the visible minority question is not a good measure of identity (or if the measures do not relate to the true processes) model fit will be poor. Even if the measure is good and the hypotheses are on point, we do not expect excellent model fit because of the many unmeasured factors such as phenotype, experiences, and personal agency.

2.3 Why Do Some People Change Their Response? Hypotheses and Related Prior Research

Racial and ethnic labels and identities are important lines of stratification in societies around the world, yet we see evidence of racial and ethnic response change in several countries. Why? We use the Canadian linked data to investigate four hypotheses about why response change happens. We base these on related theory about race group boundaries and prior research that has used cross-sectional data or longitudinal data with limited coverage (e.g., limited to adolescents or indigenous people) or in another country. Our data not only include people of all ages and every response group, they also include measures of characteristics at two points in time.

2.3.1 Mixed Heritage, Multiple Ties, and Response Change—For someone with mixed heritage or who has links to multiple groups through family members, there can be more than one “correct” answer to the visible minority question; answers vary across individuals and also can change over time and circumstance (Harris & Sim 2002; Liebler et al. 2017; Rockquemore & Brunsma 2004). In both papers using linked UK data, Simpson and coauthors (2007, 2016) used non-multivariate strategies to argue that most of this type of response change was not indicating shifts in personal identity but instead was because individuals’ identities did not align with offered response categories. Other researchers found substantial response change among people who report two or more race, ethnicity, or ancestry groups at one point in time (Caron-Malenfant et al. 2014; Carter et al. 2009; Doyle & Kao 2007; Harris & Sim 2002; Liebler et al. 2016, 2017; Simpson et al. 2016). In our data, we expected to find that those who acknowledged mixed heritage would be the most likely to change responses.

The experience of being an immigrant might also increase the chance of a changed response because the sending country may have different conceptions of “race” or visible minority than does Canada (e.g., Waters 2009). People who immigrated as adults may feel dual ties and different understandings than those who immigrated as children, while Canadian-born individuals would be less subject to feelings of multiple belongings that pull them in varying directions while answering the visible minority question. On the other hand, immigrants

might have a particularly strong sense of themselves as visible minorities as they face cultural contrasts and experience exclusion (Alba 2005).

2.3.2 Understanding of and Knowledge about the Visible Minority Concept and Categories—

Experience at a college or university could stabilize a person's response because of the extra focus on self-exploration offered in many university courses. There is evidence for a positive relationship between education and persistent indigenous identity in Canada and Mexico (Caron-Malenfant et al. 2014; Villareal 2014) but the relationship is inconsistent in other research on Canadian Aboriginal identification (Durand et al. 2016) and US American Indian identification (Liebler et al. 2016). We expect that people with more education will have more knowledge, understanding, and acceptance of the concept of visible minority and the categories used on the form, and thus relatively stable responses.

We expect that older people are less likely than younger people to change responses for two reasons. First, older people have had a longer lifetime to explore identities and to discern what label fits them best. For example, Aboriginal participants in focus groups in Australia described "increased confidence in their identity as they grew older" (Australian Bureau of Statistics 2013:5). Second, societies around the world have recently become more nuanced and flexible in interpreting and discussing race and visible minority groups. Older people are more likely to have been socialized to think of race and related categories as simple and straightforward. Research with linked data in NZ, the US, and the UK generally show a positive relationship between age and response stability (Carter et al 2009; Liebler et al. 2016; Simpson & Akinwale 2007), though research with indigenous Australians hints at more response change among elders than young adults (Biddle & Crawford 2015).

2.3.3 Socioeconomic Status Change and Response Change—

On average, Whites have a higher socioeconomic standing in Canada than do people in visible minority groups. This has a number of potential implications for response change which are heretofore untested because prior studies with linked census data (e.g., Durand et al. 2016; Liebler et al. 2016) did not have the income measure at two data points. People of any racial heritage with high socioeconomic status may feel more comfortable identifying as White than those with lower socioeconomic status. This identification can be encouraged through treatment by others, assumptions by others, and integration into predominantly White neighborhood and workplace settings. The reverse processes may also be true; people who report White but have relatively low socioeconomic status (or experience decline in circumstances) might be particularly likely to keep a visible minority response or change their response to a visible minority group. If these processes are happening in Canada, we would find that a person whose income rises or remains high is likely to report White or change to a White response, and a person whose income decreases or remains low would give a visible minority response. Research using other data from the US and Latin America gives evidence that socioeconomic status, and changes in status, affect how a person is seen by others (Davenport 2016; Freeman et al. 2011; Liebler et al. 2016; Penner & Saperstein 2013; Saperstein & Penner 2012; Telles & Paschel 2014). How a person is seen by others can, in turn, affect their self-perception and their response to questions about race (Cooley

1902). This stereotype-based process will also impact responses if someone else is filling out the form on behalf of the individual.

However, not all prior evidence points to the importance of socioeconomic status for response change. Among children of immigrants to the US, socioeconomic status was not predictive of race response change (Mowen & Stansfield 2016). In another study, DeFina and Hannon (2016: 91) found “that, on average, fluctuations in an individual’s income, educational attainment and employment status are not significantly related to changes in racial self-identity in the contemporary United States.” Income (at a single point in time) was not predictive of response change for those who reported Hispanic American Indian or multiple-race American Indian in the US (Liebler et al. 2016).

2.3.4 Salience and Social Meaning of the Visible Minority Group—There are a number of reasons to expect that socially constructed race group boundaries are clearer in areas with more people in that group, thus enhancing response stability. The local predominance of the group would likely be caused by place-specific historical factors such as racism and opportunity in employment and housing. Not only would the individual likely find the identity salient, but also nearby others are more likely to classify the person as part of a salient group, which reinforces the identity (Cooley 1902; Goffman 1959). There also may be co-ethnic organizations or social groups that socially define who is “in” the group and who is not.

These ideas are supported by prior research. Adolescents’ identities are influenced by their peers (Cooley et al. 2017), people of mixed heritage tend to give race responses that are consistent with others in their area (Liebler & Zacher 2016), and interracial married parents’ decisions about how to report their children’s race(s) vary with local area composition (e.g., Xie & Goyette 1997). Aboriginal response stability is greater among people who have ever lived in a First Nations Community or attended a boarding school (Durand et al. 2016). Race and ethnic response stability of American Indians (Liebler et al. 2016) and US adolescents (Eschbach & Gómez 1998) is greater among those who live or attend school with others who have the same race/ethnic response. With larger groups, there is more opportunity for group-level friction or competition (Blumer 1958; Bobo & Hutchings 1996; Taylor 1998) which can reinforce group boundaries. We expect these types of processes and systems to support response stability among people who are living near others who report the same visible minority group.

3. Data

3.1 Source Data and Linkage

To do this research, we used Statistics Canada’s linked 2006 Census long form and the 2011 National Household Survey. The 2006 long form and 2011 NHS include the visible minority question as well as many other questions such as those on ethnic ancestry, education, and income.¹⁰ In 2006, the census short form was given to everyone in the Canadian population

¹⁰For the 2006 Census, see: <http://www12.statcan.gc.ca/census-recensement/2006/ref/index-eng.cfm>. For the NHS, see <http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=5178>.

and the long form was given to 20% of the population; all people who received the short or long form were legally required to complete it. In 2011, the short form census was mandatory for all people but the long form was voluntary (and renamed to be the 2011 National Household Survey or NHS). Approximately 34% of the households in Canada received the NHS questionnaire and the unweighted response rate was 69%. In total, about 21% of the 2011 Canadian population participated in the NHS. The main consequence of the voluntary survey and relatively low response rate was the loss of reliable data for small areas (Statistics Canada 2015).

Although we refer to responses as belonging to an individual, we do not have any way of knowing who filled out each questionnaire and so these are not necessarily self-reports. When addressing our hypotheses, we limit our sample to adults and this increases the likelihood that the person either answered the visible minority question for him- or herself, or effectively communicated their wishes to the person who did fill out the form. Relatedly, as we discussed above, it is important to recognize that a person's identity and their questionnaire response are not the same thing. This is a study of questionnaire response, with hopes of gaining insight into identity.

The Social Survey Methods Division of Statistics Canada linked the 2006 and 2011 short-form censuses using deterministic techniques based mostly on first and last name, date of birth, sex, and phone number. The global linkage rate was 75%; in other words, over 75% of people in the 2011 population (excluding children less than 5 years old and immigrants who arrived in Canada after 2006) were linked to their own responses in 2006. Over 22 million persons were linked.¹¹ A subset of these linked data includes 1.06 million persons who responded to the long form in 2006 and the NHS in 2011 (Grondin & Grenier 2014). Survey Methodologists at Statistics Canada designed weights to take into account the non-response to the NHS as well as non-linkage between the 2006 and 2011, so the weighted data would be representative to the entire Canadian population in 2006 (about 32.6 million people). We applied these weights when calculating the statistics in this research.

3.2 Sample Selection

Starting from the 1.06 million linked sample, we applied further sample selection criteria to reduce the chances of a false linkage: we excluded individuals whose sex response changed over time, as well as those whose age responses were illogical in combination. The remaining sample includes 1,039,726 individuals. We used this sample in our analyses in section 1 when we give descriptive information about response change (Figures 2 and 3).¹² When addressing our questions about why some people change responses, we have hypotheses that require measures of completed education and market income. In multivariate models, we limit our sample to people who were ages 25 to 59 in 2006. These samples are also limited to people who gave that particular response to the visible minority question (e.g., Chinese) in 2006 and/or 2011.

¹¹The rate of false matches is unknown.

¹²The current version of the data does not have allocation flags and so allocated responses remain in our sample. Statistics Canada reports: "The NHS imputation rate at the national level for population group [visible minority group] is 3.9% while the imputation rate for this variable for the 2006 Census was 2.9%." (Statistics Canada 2013, 8).

3.3 Visible Minority and White Population Groups

For our descriptive results (shown in Figures 2 and 3 below), we group the responses to the visible minority question into 24 categories. We use the 11 single-response categories listed on the form and a 12th single-response category that includes all other visible minority responses not included elsewhere.¹³ Because most multiple-response groups are small, we combine them into 12 groups: 10 dual responses of White and a visible minority, and two aggregated multiple-response categories (one for those that include a White response and one for those that do not). Statistics Canada precedes the visible minority question with a question on Aboriginal heritage (as shown in Figure 1). Those people who indicate that they have Aboriginal heritage are not asked the visible minority question. Because a number of people self-report Aboriginal in one year but answer the visible minority question in the other year, we include a 25th category for Aboriginal self-reporting. See Andersen (2013) for more on the self-reported Aboriginal category and see Caron-Malenfant et al. (2014), Durand et al. (2016), and Morency et al. (2015) for more on response changes among self-reported Aboriginal people in Canada.

We focus on seven case studies for the multivariate analyses: people who were reported (in 2006, 2011, or both) as White, Chinese, South Asian, Black, Latin American, Arab, or West Asian. These groups are not only relatively large but also have sufficient cases in each category of the dependent variable (described below; see Figure 4). With these case studies, we can see patterns of response change for people reported as White, for people reported as a relatively clearly visible minority (Chinese, South Asian, and Black), and for people whose minority status may be less visible (Latin American, Arab, and West Asian; most people in these groups would be classified as White in the US). The population groups have varied histories in Canadian society.

3.4 Methods

In our results, we first show the extent of response change, by group (in Figure 2, below) and an overview of common specific changes (in Figures 2 and 3 below). In the remainder of the analyses, we use multinomial logistic regressions to address hypotheses about why responses change. We present results from the regression models, estimated separately by response group. In each of the models, the analytic subsample is the set of people who were ages 25 to 59 in 2006 and who gave that visible minority or White response in 2006 or 2011 or both. Full results are available on request.

3.5 Measures in Multinomial Logistic Regression Analyses

3.5.1 Dependent Variable—In our multinomial logistic regression models, the dependent variable for the model predicting stability and change in the White response group has three categories: (a) White in 2006 only (left to a visible minority or multiple response), (b) White in 2011 only (joined from visible minority or multiple response), and (c) White in 2006 and 2011 (i.e., stayed in the White category). The dependent variable for

¹³Data on other visible minority groups that were not among the 10 specifically named groups are collected in the “other - specify” category. Common responses to this residual category included Pacific Islander, Guyanese, West Indian, Kurd, Tibetan, and Polynesian.

the other six models has five categories: (a) left to White, (b) left to another visible minority or multiple response group, (c) joined from White, (d) joined from another visible minority or multiple response group, and (e) reported the same group in 2006 and 2011 (stayed). In all models, the “stayer” group is the comparison group. In Figure 4, we show the weighted distribution of the dependent variables and the unweighted number of people in each dependent variable category.¹⁴

3.5.2 Independent Variables

Measures of mixed heritage and immigration status: An open-ended *ethnic ancestry* question was asked in both years, with four fill-in-the-blank response areas. We grouped these responses into general world regions aligning with the categories in the visible minority question (European, East Asian, South Asian, Southeast Asian, West Asian, Arab, Korean, Japanese, African, and Latin American). If a person reported at least two ethnic origins from different broad world regions, we considered them to have mixed heritage on a yes/no variable. For instance, an individual who is reported to be in the single response category of Chinese in the visible minority questions may have reported both Chinese and European ethnic ancestry. We coded *immigrant generation* as: (1) immigrated as an adult or teen (aged 13 or older at immigration), (2) immigrated as a child (aged 12 or younger), or (3) not an immigrant.

Measures of knowledge, understanding, and acceptance of the visible minority concept and categories: We operationalized these concepts using formal education and age. We grouped *education* into four categories: (1) less than high school diploma; (2) high school or equivalent degree; (3) some higher education but no degree, and (4) at least a Bachelor’s degree. We divided the population by *age* into three groups: ages 25 to 34, 35 to 44, and 45-59.

Measures of high, low, increased, and decreased economic status: To understand the role of level and change in economic status in response change, we used personal *market income*, which is income from employment earnings and investment. We define “high” income in 2006 as a personal market income above twice the national median income that year, while “low” income is a personal market income less than half the national median. We consider a person’s economic status to have increased if their personal market income was at least 10% higher in 2011 than 2006 (in constant 2006 dollars). Similarly, we code the economic status as having decreased if income declined by at least 10%.¹⁵

Measures of residential social context: We included two measures of residence near others from the focal response group. First, we measured the *proportion of the municipality*¹⁶ *population that was in the response category* in 2006. This measure varies

¹⁴Note that the Latin American and Arab models have poor model fit (pseudo- r^2 is 0.036 and 0.025, respectively). Pseudo- r^2 for the other groups’ models are: White = 0.163; Chinese = 0.128; South Asian = 0.058; Black = 0.070; and West Asian = 0.057.

¹⁵We also tested a measure of market income that indicates lower market income (below sex-specific median), higher income (above the sex-specific median) and change between these categories. Results are similar and available on request.

¹⁶A municipality is otherwise known as a Census Sub-Division or CSD. It is an “Area that is a municipality or an area that is deemed to be equivalent to a municipality for statistical reporting purposes (e.g., as an Indian reserve or an unorganized territory). Municipal status is defined by laws in effect in each province and territory in Canada.” (Statistics Canada 2010: 211). CSDs cover the entire country. There were 5,600 CSDs in 2001, though many CSDs had 0 population in the long form census.

with the response category. For example, in the Chinese model the measure is the proportion of people in the municipality who reported Chinese in 2006. Second, we measured *change* the in proportion of the municipality population between 2006 and 2011 by subtracting the 2006 proportion of a response category in the municipality that gave the particular response from the 2011 proportion. Change could have been caused by compositional change of the municipality or by a person's residential move.

We included a bivariate indicator of male/female as a control variable. There is limited evidence that gender is related to response change, though Davenport (2016) recently found a relationship between gender and racial identity among college freshmen in the US. This variable is almost never significant in any category across the seven multivariate models (results available on request).

3.6 Presentation of Results as Predicted Distribution of Response Patterns

For each of the seven multivariate models, we present our results in the form of a predicted proportional distribution across the dependent variable categories based on the full multinomial logit models. The predicted proportions in each row sum up to 1; each proportion represents the proportion of people in the sample predicted to be in that dependent variable category if they had the characteristic listed in the row.¹⁷ The statistical significance associated with a characteristic indicates the following: relative to the reference category for that variable, the likelihood of a person with that characteristic changing responses is significantly different from the likelihood of them keeping the same response in both years. We show statistical significance in the Appendix table.

The calculation of a predicted distribution is straightforward for categorical measures, but more challenging for continuous measures such as our measures of residential social context. For these we show predicted distribution at three points in each distribution. "Low" is when proportion is at half of the group-specific median. "High" is when the proportion is at double the group-specific median.¹⁸ We also show the predicted distribution of responses when the proportion is at the group-specific median. For the change in proportion, we calculate "high increase" at half of the group-specific maximum increase, and "high decrease" at half of the group-specific maximum decrease. We also show the predicted distribution of responses when there was no change in the proportion of the municipality's population in that response group.

4. Results

4.1 The Extent of Response Change to the Visible Minority Question

How common is it for Canadians to change their answer to the visible minority question? In Figure 2, we show the extent to which Canadians kept the same response group in 2006 and 2011 or changed responses over the period. Each row represents all people with that

¹⁷There are two accepted strategies for this procedure: marginal effects at the mean (MEM) and average marginal effects (AME). We use the latter, which involves calculating the marginal effect of a variable for each individual. In our tables, we present the predicted value that is based on the average of the individual-level marginal effects. See Williams (2012) for further explanation of AME.

¹⁸The median proportion in the municipality is 0.9 for Whites, so we use 1.0 as the "high" value in the model for Whites.

response in either 2006 or 2011 or both. Across all groups combined, there was general stability in response to the visible minority question --- 91% of Canadians gave the same response in both 2006 and 2011. The most stable response group was White, with 97% stability; in other words, 97% of people who reported White in either year reported it in both years. This comparable to the level of stability found in the White category in the US between 2000 and 2010 (Liebler et al. 2017). The Chinese and Korean response groups experienced more than 90% response stability. Black response stability in Canada (83% stable) is very similar to that found in the UK (Simpson et al. 2016) and less stable than in the US (94% stability for non-Hispanic US Blacks; Liebler et al. 2017); these international differences in Black response stability may be a result of differences in the history of migration, enslavement, segregation, resistance, and incorporation of Blacks into the broader society. Other groups with response stability similar to Black Canadians were South Asian, Filipino, and Japanese. Future research and theorizing should explore societal reasons for these international cross-group variations.

Notably, categories with general or region-based names (Latin American, Southeast Asian, Arab, and West Asian) had lower levels of response stability (69%, 61%, 63%, and 62%) than categories with specific country-based names (e.g., Chinese, Filipino, Korean or Japanese; 91%, 89%, 94%, and 81%). With similar findings in England and Wales, Simpson and colleagues (2007, 2016) argued that this pattern reveals respondent confusion about the categories rather than meaningful changes in identities.

Dual response groups had the highest levels of response change, with only 6% to 55% response stability. Very high level of response change among people reporting multiple groups was also found in the UK (Simpson and Akinwale 2007; Simpson et al. 2016) and the US (Liebler et al. 2017).

Figure 2 also shows substantial population churn – change both out of the group (leaving) and into the group (joining). Response changes resulted in a net decrease in the White, Chinese, Black, and Korean groups, though differences are small relative to the total size of the each group. Response changes resulted in a net increase in the Latin American, Southeast Asian, and Arab groups, though again, differences are small relative to total group sizes. Response change affects the *composition* of groups by changing its constituents, but relative similarity in the number of leavers versus joiners in each group means the effect of churning on the total *size* of single-response groups is small.

Next, we show in Figure 3 a visual cross-tabulation or “heat map” of response in 2006 by response in 2011. This allows a closer look at the types of response changes that were most common. For example, among those who reported Chinese in 2006 (row 2), the most common non-Chinese responses in 2011 were: multiple visible minority, Southeast Asian, and White (columns 13, 7, and 1).

We see four primary patterns in Figure 3. First, people who gave a visible minority response in 2006 often changed their response to White in 2011 (column 1), and the reverse (row 1). Second, people who gave a dual response in one year (rows 13-24 and columns 13-24) often gave just one of the two responses in the other year. Third, it was relatively common to

change from one single response to another (top left quadrant). These three patterns are similar to those found in the US across the 2000 to 2010 period (Liebler et al. 2017). We also see a fourth pattern – the most common response change for people reporting White in one of the years is to/from the self-reported Aboriginal category. Caron-Malenfant (2014) and Durand et al. (2016), among others, have completed research into this phenomenon in Canada, and others have explored this pattern elsewhere (e.g., Biddle & Crawford 2015; Kinfu & Taylor 2005; Liebler et al. 2016; Pettersen & Brustad 2015).

4.2 Why Do Some People Change their Response?

Why do some individuals' race responses change? We address four hypotheses about social, economic, and personal factors that might affect race group boundaries, racial identity, and/or racial identification. With a sample of over 1 million people linked across the five year period, seven single-response groups had enough variety of response change to support multivariate analysis.

Before turning to the multivariate models, we show the univariate distribution of response stability and change (i.e., the dependent variable distribution) for each of the seven response groups; see Figure 4. We study three visible categories that are usually encompassed in the White category in the US: Latin American, Arab, and West Asian. In Figure 4, we see that response changes by people in these groups were most often to or from White, showing a close connection between these categories in Canada as well. The Latin American, Arab, and West Asian groups also have relatively high proportions who changed response from or to another visible minority group (White & Latin American, White & Arab, and South Asian, respectively, as seen in Figure 3).

Change from/to White was rare for our other three focal visible minority groups – Chinese, South Asian, and Black. These were the three largest visible minority groups in Canada in 2006, with 3.9%, 4.0%, and 2.5% of the total population, respectively (Statistics Canada 2006, 13).

4.2.1 Response Change and Mixed Heritage—We expected that people who reported mixed heritage would be relatively likely to change responses because they have acknowledged connection to multiple groups. The effect of mixed ethnic ancestry on response change is visible in Figure 5 when comparing the second line in each panel (mixed ancestry) to the third line (no mixed ancestry reported).¹⁹ Statistical significance (presented in the appendix) shows that for Chinese, South Asian, Black, and Latin American Canadians, mixed ethnic ancestry was particularly predictive of changing responses to/from another non-White group, but less clearly associated with joining or leaving the White group. Mixed heritage was strongly associated with people changing their response from West Asian to White. Looking across the seven models, we find that mixed ethnic ancestry was the most powerful predictor of response change.

¹⁹We show predicted distributions in Figures 5 through 8. For example, in the first panel of Figure 5, we see that if all people who reported White in one of the years had also reported mixed ethnic ancestry, we would expect to see 13% of respondents change from White to a non-White group between 2006 and 2011.

Two-thirds of those who reported a visible minority group in 2006 were immigrants (Statistics Canada 2006, 13). We found that people who reported White were more likely to change responses if they were immigrants than if they were Canadian-born; if all those who reported White in 2006 had immigrated as adults then 3.7% would have changed their response by 2011, as opposed to 1.4% if all had been born in Canada (Figure 5 and Appendix Table A). The opposite was true for all of the non-White response groups where the results were significant: Adult and teen immigrants in non-White groups had more stable responses than did people born in Canada and rarely changed responses to White (Figure 5). Among Chinese, South Asian, or Black Canadians, those born in Canada were significantly likely to switch to/from White, but not from/to another visible minority group.

4.2.2 Understanding of and Knowledge about the Visible Minority Concept and Categories—

Either because they understand the question well (i.e., its meaning, categories, and usage) or because they have developed their identity in the process of their education, we expected that people with more education would have more stable responses. We found support for this hypothesis in that lower education was predictive of response change in virtually all the models (when significant), while a university education was more often predictive of response stability. We depict the patterns in Figure 6.

In all groups, response stability was highest for those with a college degree. Lower education was strongly and substantively associated with joining or leaving a non-White response group in the Chinese and South Asian models. People who reported Black or West Asian in 2006 and who did not complete high school were especially likely to change to a different visible minority response in 2011. Education level had little relationship to response change for the White and Latin American groups and for those in the Chinese and South Asian groups who join or leave White.

Although age was significant in several models, the substantive size of the effect was usually quite small. Our prediction that older people would have more stable responses is generally borne out, but is not a large part of the story of why people joined, left, or stayed in a response category.

4.2.3 Economic Status Change and Response Change—People with higher income may be treated similarly to Whites and be relatively integrated into predominantly White spaces, encouraging a switch to a White response if there is some underlying propensity to do so. High market income in 2006 is a statistically significant predictor of response stability for people with a White response (see Figure 7). We note, however, that the predicted differences are very small and the significance may be driven by the large sample size. For other groups, income measures were mostly not significant. Overall, we found little support for the hypothesis that “money whitens” in Canada as has been explored in Latin America (Schwartzman 2007; Telles & Paschel 2014) and the US (Saperstein & Penner 2012). Economic status and economic status change are not driving Canada’s race response change.

4.2.4 Salience and Social Meaning of the Visible Minority Group—Our final hypothesis relates to the local context – we expected that people living near relatively many

others who gave a particular response would have more stability in giving that same response. This is because socially constructed race boundaries (the “rules” about who belongs in which group) are perhaps clearer in areas with more constituents. Our results in most groups provide support for this hypothesis; see Figure 8. There is a particularly significant and substantive relationship between local area composition and direction of response change for people who reported Chinese or Black in 2006 and reported another visible minority group in 2011. A change in identification away from Chinese or Black is associated with a lower or decreasing proportion of the local population that is Chinese or Black. Most other groups (except West Asians) follow the same pattern but with a smaller effect.

A more stable identity when living near others in the same group could be caused by negative or positive stereotypes and experiences. People may be stigmatized as “racialized others” if they live in or move to a racially segregated area with a concentration of residents from their group. Their experience of stigmatization and racism in these neighborhoods might drive them to choose the group’s category as response to a feeling of oppression, or feelings of empowerment to resist oppression. Some residential clustering can be characterized by the formation of affluent “ethnoburbs” (e.g. Chinese Canadians in Markham and Richmond), bustling with ethnic economy. In this case as well, moving to or living in a clustered area may strengthen a person’s ethnic (racial) pride and stabilize their identity and response.

4.2.5 Joining, Leaving, and Staying in Response Categories—Across the models, another pattern emerges: our models are primarily distinguishing between response stability and response change rather than finding ways that those who join a group are different from those who leave it. This is because joining and leaving a group are usually predicted by the same characteristics and in the same direction. In other words, our results show evidence of two types of experiences: one experience that involves response change and is measured by both joining and leaving, and another that involves response stability. This is parallel to results found for American Indians in the US between 2000 and 2010 (Liebler et al. 2016). Theories that posit one reason for joining a response group and an opposite reason for leaving it are not consistent with our general results. We also note that the size of a group’s inflows and outflows (Figure 2) are fairly similar such that point-in-time characterizations of the group will look relatively consistent over time even as the individuals within the group change.

5. Conclusion

With this study, we add Canada to the list of nations (including the US, UK, and New Zealand) documented individual-level race response change. In the work presented above, we showed that the overall stability of individuals’ race (visible minority or White) responses in Canada is high (91%) because the most stable group – White, 97% stable – is also the largest. Historical patterns of White hegemony, litigated boundaries of the White group (Haney Lopez 2006), and “racial common sense” (Omi and Winant 2014) in Canada and the previously studied countries may help explain this stability.

However, the full story is more complex. Many Canadians changed responses from White to a visible minority group (or the reverse), others changed from a dual response to just one of the two responses (or the reverse), and still others changed their single response to a different single response over the five-year period. We see relatively high response stability in groups with country-specific names (Chinese, Filipino, Korean, and Japanese were 91%, 89%, 94%, and 81% stable, respectively).

We explored four ideas about why some people would change their racial identities and/or their visible minority responses. Our seven multinomial logistic regression models show cross-group similarities and variation, though joining and leaving a group were usually predicted by the same characteristics and in the same direction (also found by Liebler et al. 2016 in the study most similar to ours). We found that social statuses and experiences (mixed ethnic heritage, immigration status, and exposure to own-group members) were more predictive of race response stability and change than economic (income level and change in income) or personal statuses (education, age). We used unique linked long-form data that are not available in the US or other countries similar to Canada and, to the extent that social processes in Canada are similar to those in other White-majority former British colonies, our results can provide insight into processes involved in the social construction of race elsewhere.

The importance of mixed ethnic heritage, immigration status, and residence near others in the same visible minority/White group highlights the socially-constructed nature of race group boundaries. People with mixed ethnic heritage may have identities that are more complex than a simple one-time question can capture and that fall outside of locally-enacted social definitions of who “belongs” in each group. Immigrants who identify as visible minorities have especially stable responses. In this case, their immigrant experiences may amplify and simplify messages about which group is most appropriate to report, or experiences of exclusion may brighten and clarify race group boundaries (Alba 2005). Living near others of the same response group increases the chances of group-specific formal and informal organizations that could solidify identity. It would also increase the chances that others will correctly classify the individual, which can directly affecting response if the relevant other is filling out the form and indirectly affect the response by supporting a stable identity.

Our results have a number of implications for social scientists and theorists. Researchers studying change over time in the circumstances of Canadian Whites, Chinese, and Koreans may be safe in the assumption that only birth, death, and migration is causing population change over time. Those studying the Canadian visible minorities who are usually categorized as White in the US – Arab, West Asian, and Latin American – will need to keep in mind that many people in these categories in one year were, in a different year, reported as only White or both White and visible minority. For researchers focused on understanding smaller visible minority groups (those not elsewhere classified) and multiple-response groups, this caveat becomes a strong warning against using cross-sectional data for cross-time comparisons. For the latter groups, response change is so high that linked or longitudinal data would be the appropriate way to trace individuals’ change in circumstance over time.

Many individuals with mixed ethnic heritage will report multiple groups at some point. In Canada, as well as the UK and the US, there are very high levels of response change into and out of multiple-response categories means that analytic possibilities are limited, as mentioned above. Organizations and institutions who rely on the census data could potentially improve understanding and response stability by sponsoring pre-census conversations about who they intend to include in each category – e.g., where does South Asia end and Southeast Asia begin?

Our results show a strong tendency to give responses that match others in the municipality, including changing responses when moving or when the local area composition changes. Because of this pattern, studies of change over time in residential concentration are impacted by response change. If people change responses toward the responses of their neighbors, residential segregation will remain higher than it would otherwise.

Response instability has important implications for individuals, policy makers, and researchers who are attempting to use point-in-time data to understand individuals' change over time (for related discussions, see Aspinall 2017; Deaux 2018; Duncan & Trejo 2018; Roth 2018). Our results and those in the US, UK, and NZ all indicate that response change is widespread across response groups. Instead of relying on the assumption that a race or visible minority response is life-long, demographers and data collectors should relax the assumption, gather relevant data, and apply methods that allow the possibility that a response will change. However, in Canada we find that the constituents in a group at one point in time are similar to those five years later; this result will be helpful for policy and planning aimed at serving members of the population group.

In groups where response churn is common, cross-time comparisons that assume they are the same people are not valid. It is possible to take into account response instability in assumptions and models – for example, Statistics Canada has done so in their recent Aboriginal population projections (Morency et al. 2015). How a person has identified in the past and how they identify in the future may be as important for understanding their experiences with social systems and interactions as is how they identify at a single point in time.

The social construction of race may be substantially different in countries with very different histories of colonization, White dominance, and public stories about race. The phrase “money whitens,” for example, is found in Latin American countries which also have a social emphasis on a shared national race (Sue 2013; Vasconcelos 1925); change in income could have more impact on race responses in these contexts.

Although we have used well-suited and inclusive data to address four plausible hypotheses, our research has limitations. The linked data include one million people, which is not enough to model response change in smaller population groups. We also do not have psychological, phenotypical, or experiential information, or a direct question asking about reasons for response change. Most of these limitations are inherent in large scale quantitative data and highlight the need for complementary research using other methods such as interviews. We also studied race using only one measure (the visible minority question) at

only two points in time. Using a smaller US dataset with four measures of race, Shaio (2019) classified people with inconsistent responses in a variety of ways, each of which was predictive of a different aspect of respondents' lives. Race is complicated because it is socially constructed and constantly evolving through lived experiences. We join prior authors (e.g., Campbell, Bratter, and Roth 2016 and Saperstein, Kizer, and Penner 2016) in strongly encouraging researchers using quantitative data to take these complexities seriously even when a dataset's variables seem simple and straightforward.

Appendix :: Statistical significance of results from seven multinomial logistic regression models (shown in Figures 5–8)

6. References

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2006 Census questionnaire segment

<p>18 Is this person an Aboriginal person, that is, North American Indian, Métis or Inuit (Eskimo)?</p> <p><i>If "Yes", mark "X" the circle(s) that best describe(s) this person now.</i></p>	<p>☐ No → Continue with the next question</p> <p>☐ Yes, North American Indian</p> <p>☐ Yes, Métis</p> <p>☐ Yes, Inuit (Eskimo)</p> <p>Go to Question 20</p>
<p>19 Is this person:</p> <p><i>Mark "X" more than one or specify, if applicable.</i></p> <p><i>This information is collected to support programs that promote equal opportunity for everyone to share in the social, cultural and economic life of Canada.</i></p>	<p>☐ White</p> <p>☐ Chinese</p> <p>☐ South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.)</p> <p>☐ Black</p> <p>☐ Filipino</p> <p>☐ Latin American</p> <p>☐ Southeast Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian, etc.)</p> <p>☐ Arab</p> <p>☐ West Asian (e.g., Iranian, Afghan, etc.)</p> <p>☐ Korean</p> <p>☐ Japanese</p> <p>Other — Specify</p> <p><input type="text"/></p>

2011 National Household Survey questionnaire segment

<p>18 Is this person an Aboriginal person, that is, First Nations (North American Indian), Métis or Inuk (Inuit)?</p> <p><i>Note: First Nations (North American Indian) includes Status and Non-Status Indians.</i></p> <p><i>If "Yes", mark "X" the circle(s) that best describe(s) this person now.</i></p>	<p>☐ No, not an Aboriginal person → Continue with the next question</p> <p>☐ Yes, First Nations (North American Indian)</p> <p>☐ Yes, Métis</p> <p>☐ Yes, Inuk (Inuit)</p> <p>Go to Question 20</p>
<p>19 Is this person:</p> <p><i>Mark "X" more than one or specify, if applicable.</i></p> <p><i>This information is collected in accordance with the Employment Equity Act and its Regulations and Guidelines to support programs that promote equal opportunity for everyone to share in the social, cultural, and economic life of Canada.</i></p>	<p>☐ White</p> <p>☐ South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.)</p> <p>☐ Chinese</p> <p>☐ Black</p> <p>☐ Filipino</p> <p>☐ Latin American</p> <p>☐ Arab</p> <p>☐ Southeast Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian, etc.)</p> <p>☐ West Asian (e.g., Iranian, Afghan, etc.)</p> <p>☐ Korean</p> <p>☐ Japanese</p> <p>Other — Specify</p> <p><input type="text"/></p>
<p>20 Is this person a Status Indian (Registered or Treaty Indian as defined by the <i>Indian Act</i> of Canada)?</p>	<p>☐ No</p> <p>☐ Yes, Status Indian (Registered or Treaty)</p>

Figure 1:
Visible minority questions in 2006 and 2011

	Number in group		left category	stayed in category	joined category	% left	% stayed	% joined	
	2006	2011							
Total	30,741,100	30,741,200	1,439,900	29,301,400	1,440,000	4	91	4	
<i>Single Response Groups</i>									
White	24,583,300	24,441,700	500,400	24,082,900	358,800	2	97	1	
Chinese	1,163,500	1,136,500	67,900	1,095,600	41,000	6	91	3	
South Asian	1,240,800	1,233,100	94,100	1,146,700	86,400	7	86	7	
Black	637,900	620,600	68,600	569,300	51,300	10	83	7	
Filipino	410,100	406,900	26,200	384,000	23,000	6	89	5	
Latin American	285,300	291,300	49,200	236,100	55,200	14	69	16	
Southeast Asian	218,900	234,700	46,500	172,400	62,300	17	61	22	
Arab	260,200	272,000	53,700	206,500	65,500	16	63	20	
West Asian	166,300	159,800	41,300	125,000	34,800	21	62	17	
Korean	116,600	111,900	6,000	110,500	1,400	5	94	1	
Japanese	60,400	60,000	6,700	53,700	6,200	10	81	9	
Visible minority n.i.e.	71,700	96,400	49,600	22,200	74,300	34	15	51	
<i>Multiple Response Groups</i>									
Multiple visible minority	104,200	106,900	68,900	35,300	71,500	39	20	41	
White & Chinese	48,300	46,100	16,500	31,800	14,400	26	51	23	
White & South Asian	29,400	33,100	13,800	15,700	17,400	29	33	37	
White & Black	94,900	91,600	39,000	55,900	35,700	30	43	27	
White & Filipino	21,100	23,100	7,300	13,700	9,400	24	45	31	
White & Latin American	53,000	53,500	35,400	17,700	35,800	40	20	40	
White & Southeast Asian	7,700	21,000	4,700	3,000	18,100	18	12	70	
White & Arab	54,400	45,300	38,800	15,600	29,700	46	19	35	
White & West Asian	10,300	13,300	8,900	1,400	11,800	40	6	53	
White & Korean	6,000	5,000	2,600	3,400	1,600	34	45	21	
White & Japanese	29,300	26,500	9,500	19,800	6,700	26	55	19	
White & 2+ visible min.	29,200	27,600	23,500	5,700	21,900	46	11	43	
Aboriginal (self-reported)	1,038,300	1,183,300	160,800	877,500	305,800	12	65	23	

Figure 2:

Leaving, joining, and staying in visible minority, White, and self-reported Aboriginal groups in Canada between 2006 and 2011

Notes: Data are a linked sample of over 1 million cases from the 2006 Census and 2011 National Household Survey, both in Canada. Numbers are rounded, weighted estimates of the population in the 2006 Census. N.i.e = not included elsewhere.

Figure 3:

Most common response changes to/from visible minority, White, and self-reported Aboriginal groups: 2006 to 2011

Note: Shading indicates the relative number of people who made that response change (darkest is highest). Outlined boxes indicate response stability. See text for information about the data.

Panel A: Weighted percent leaving, staying in, and joining each group

Note: Values not shown are 2% or less. See text for information about the data.

Panel B: Unweighted number leaving, staying in, and joining each group

	Left to White group	Left to a non-White group	In group in 2006 and 2011	Joined from non-White group	Joined from White group
White		7,206	407,210	4,516	
Chinese	149	867	18,322	546	68
South Asian	137	1157	16,823	983	144
Black	152	516	6,748	414	125
Latin Amer.	269	351	3,493	430	262
Arab	317	352	2,844	446	433
West Asian	172	263	1,582	217	159

Figure 4:
Leaving, staying in, and joining seven response groups, 2006-2011

Figure 5:
Predicted distribution of response stability and change for seven groups: Measures of mixed heritage and multiple ties

Notes: Images show predicted distributions. Results of the seven multinomial logistic regression models available on request.

Figure 6:
 Predicted distribution of response stability and change for seven groups: Measures of
 knowledge and understanding
 Notes: Images show predicted distributions. Results of the seven multinomial logistic
 regression models available on request.

Figure 7:
 Predicted distribution of response stability and change for seven groups: Measures of personal market income
 Notes: Images show predicted distributions. Results of the seven multinomial logistic regression models available on request.

Figure 8:
 Predicted distribution of response stability and change for seven groups: Measures of residential social context
 Notes: Images show predicted distributions. Results of the seven multinomial logistic regression models available on request.