The Well-Being of Immigrant Children and Parents in Canada

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Abstract**:**
In this paper, we use microdata from the Canada Community Health Survey (CCHS) to document the fact that both immigrant children and immigrant parents have lower self-reported life satisfaction and are less likely to feel a strong sense of 'belonging' to their local communities than their Canadian-born peers. A novel aspect of our work is that we provide direct comparisons of both levels and correlates of well-being for parents and children, since our data asks children (aged 12 to 17) and adults the same survey questions. We find, first, that immigrant status has a larger, negative, association with well-being for parents than for children. And, although income is an important correlate of life satisfaction for both parents and children, the association is larger for parents. A troubling finding is that there is no apparent improvement in life satisfaction for immigrant parents or children who have lived longer in Canada. Given European experiences with alienation among immigrant youth, we also examine 'belonging to the community' as another aspect of well-being; lower levels of belonging are reported by immigrant youth, especially girls, than by their Canadian peers. Indeed, for girls, immigrant status is one of the largest (negative) correlates of belonging identified. The same is true for parents, but the size of the association is smaller and appears to decline over time.

Key words: well-being, happiness, life satisfaction, children, families, immigrant
JEL Codes: J1, I3

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Canada is a country of immigrants and continued immigration is regarded as one solution to falling birth-rates and an aging population. It is thus troubling from an equity perspective that recent Canadian immigrants have lower *economic* well-being than their Canadian-born peers (Picot and Sweetman, 2005). In this paper, we use microdata from the Canada Community Health Survey (CCHS) to document the fact that both immigrant children[1] and immigrant parents also have lower levels of *subjective* well-being – specifically, immigrants have lower self-reported life satisfaction and are less likely to feel a strong sense of 'belonging' to their local communities than their Canadian-born peers. Although it has thus far received less attention in the economics literature, lower levels of life satisfaction and higher levels of alienation among immigrants is thus also a troubling policy problem. Insofar as parents have moved to Canada in order to secure a better future for their children, it must be particularly disheartening if immigrant children lack a sense of belonging and are less satisfied with life than Canadian-born children. And, in the case of children, lower levels of subjective well-being than native-born peers is not only an equity issue in the present, but evidence suggests that lower self-assessed quality of life is predictive of negative outcomes in the future (Huebner, Funk and Gilman 2000).

Although there is a rapidly expanding economics literature studying subjective reports of life satisfaction for adults (e.g., Diener, et al., 2009 for a recent overview), the literature on child happiness is much smaller (though see Burton and Phipps, 2008, 2009 or 2010). Research focused on understanding the self-assessed well-being of immigrant children is particularly small (though see Aronowitz, 1984; Beiser, et al., 2002; Zhou, 1997) compared, for example to the research on more traditional economic outcomes (e.g., Aydemir et al., 2005; Galloway et al., 2004). In this paper, we are interested in how immigrant children *themselves* experience well-

[1] By 'immigrant child' we mean children who were themselves not born in Canada rather than children of immigrant parents.

being and belonging and whether/how the experiences of child immigrants differ from the self-reported experiences of parents. A particularly novel feature of the CCHS that we exploit for this purpose is that adults and children are asked exactly the same questions about their well-being.

The first question we ask is simply whether being an immigrant child is associated with larger or smaller reductions in well-being than being an immigrant parent?

Our second question is "why are Canadian immigrant children/parents less happy than native-born children/parents?" and "why don't they feel they belong?" Since low immigrant income is a current policy concern in Canada and since income is one of the most-often studied and important correlates of life satisfaction (see, for example, Barrington-Leigh and Helliwell, 2009; D'Ambrosia and Frick, 2004 or 2007; or Ferrer-i-Carbonell, 2005 for adults or Burton and Phipps, 2008b; or Ash and Huebner, 2001 for children), we pay particular attention to a possible connection between lower incomes for immigrants and lower observed levels of both life satisfaction and belonging.

Although lower family income may be an important explanation for lower immigrant subjective well-being, we hypothesize that family income may be a more important correlate for parents than children. First, within families, resources are not always divided equally among all family members (Burton, et al., 2007) and there is some qualitative evidence that parents attempt to shelter their children from economic hardship, buying winter coats for their children rather themselves, for example (Middleton et al., 1997). Certainly, parents are more responsible for acquiring income, perhaps taking on extra employment when family income is low. In qualitative research with immigrant adolescents in Norway, Prieur was shocked how often

parental ill health was mentioned; children often perceived their parents to be 'exhausted' (Prieur, 2002, p. 59).

> "The young people tell these family histories as stories about their parents' *sacrifices*, and subsequently as stories about their own *debt* to their parents" (Prieur, 2002, p. 59).

Income may also matter more to parents than to children to the extent that it is regarded as a marker of 'personal success,' perhaps particularly for fathers. Our past research (Burton and Phipps, 2008b) provides some informal evidence that income matters less for children than adults, but we are not aware of previous work with directly comparable estimates of the income/well-being associations for adults and children.

Other important potential explanations that we consider in our analyses are that the majority of Canadian immigrants become 'visible minorities' in their new homes, live in larger urban areas and sometimes have language difficulties that can make communication at school/work or in the community more difficult (Harker, 2001; Picot and Sweetman, 2005). All of these factors have known negative associations with subjective well-being. It is not obvious a priori whether we would expect these factors to be more or less important for children than adults.

Finally, we ask perhaps the most important policy question: "are immigrant children/parents who have lived in Canada longer happier and more likely to feel they belong?" That is, do the negative associations between immigrant status and self-assessed well-being diminish over time? Lower well-being for immigrants, at least initially, seems unsurprising (although those escaping as refugees[2] may feel relief upon reaching safety). While the economics literature tends to find positive 'economic assimilation' (i.e., immigrant incomes generally increase with years spent in Canada), immigrant health status, on the other hand, tends

[2] We cannot separately identify refugees in the CCHS.

to decline with time spent in Canada (e.g., McDonald and Kennedy, 2004). Thus, it is not obvious whether we would expect over-all immigrant well-being to rise or fall over time or whether the pattern would be the same for adults and children.

An international move is potentially a traumatic life event, almost certainly breaking many social ties. It is hard to know whether this would be harder for parents or children. Certainly, both the adult happiness literature (e.g., Helliwell and Putnam, 2004) and the literature on child well-being emphasize the importance of social relationships (e.g., Burton and Phipps, 20081; Nickerson and Nagle, 2004; Ma and Huebner, 2008). One might suppose that children will adjust more rapidly than parents (e.g., making new friends or acquiring new language skills more quickly).[3] Immigrants may find the new cultural environment more or less comfortable. Children may more quickly adapt to new ideas and attitudes than parents, but this in itself may lead to within-family conflict (see Prieur, 2002) that reduces life satisfaction for both parents and children.

Data

For our analysis of immigrant children and parents, we pool 5 cross sections of the Canada Community Health Survey collected over the past decade (2002, 2003, 2005, 2007, 2008).[4] Collected by Statistics Canada, the CCHS provides information about health status and health determinants for a sample representative of the non-institutionalized Canadian population

[3] There is also the issue that there is a 'critical arrival age' (about 11), perhaps related to language acquisition, that has been established in research on educational attainment of immigrant youth; we plan to investigate this in terms of well-being as well.

[4] That is, we pool Cycles 2.2, 3.1, 4.1, 5.1 and CCHS 2008. In pooling these cross-sections, we assume that each is an independent random draw representative of the same population, though we include cycle dummies. We normalize weights to account for the fact that sample sizes vary across the cycles.

aged 12 and over. A unique feature of the CCHS that is central to our objectives is that respondents include both children aged 12 to 17 as well as adults (18 is the legal age of majority in Canada). Most often, surveys on well-being focus on *either* children or adults, making it difficult to provide directly comparable estimates of the size and significance of key correlates (see Burton and Phipps, 2010). Note that, for children, interviews were only carried out if the privacy of the child's responses could be guaranteed (i.e., parents were not able to see the child's responses).[5] As well, it is important to note that studies by psychologists indicate that by the age of about eight, children are capable of providing meaningful answers to questions about their own well-being (see Ben-Arieh, 2005 or Huebner, 2004).

Given our interest in the self-reported well-being of immigrant youth, a relatively small sub-population, another advantage of CCHS for this project is its very large sample size. Following exclusion for non-response to any question used in the analysis, we have 9345 12 to 17 year old girls (507 immigrants) and 10,154 boys (633 immigrants). 'Immigrant' in the CCHS means that *the child* was born outside Canada. Although we do not have matched parent/child observations, we select a sample of adults ranging in age from 30 to 64 with children present in the household who would thus be a sample of parents who could have children in the 12 to 17 age range. (We do not know the exact age of children present.) To further enhance comparability between the adults and children we analyze, we exclude parent immigrants who have been in Canada more than 17 years, the maximum possible for our sample of immigrant children.[6] Given the restriction to 'more recent' immigrant parents, parents have, on average, lived in Canada about one year longer than children (8.8 years for mothers and 8.5 years for

[5] When children aged 12 through 15 were selected as respondents to the CCHS, interviewers were also obliged to obtain permission from parents/guardians to carry out the interview.

[6] This exclusion resulted in the loss of 2,184 immigrant mothers and 2,162 immigrant fathers who had arrived in Canada more than 17 years ago. All analyses have also been conducted with this larger sample; patterns are very similar, though slightly muted.

fathers compared to 7.8 years for girls and 7.5 years for boys). These exclusions leave us with an estimating sample of 27,470 mothers (2,371 immigrants) and 23,417 fathers (2,175 immigrants).

The measures of well-being we study are: 1) over-all satisfaction with life, the indicator preferred in the growing 'economics of happiness literature' (see Diener et al., 2009); and, 2) 'belonging to the local community,' a measure which seems particularly relevant in the context of immigrants and social exclusion (see Micklewright, 2002). The life satisfaction question asked in the CCHS is: "How satisfied are you with your life in general?" Respondents were offered five possible responses to the life satisfaction question: 1) very satisfied; 2) satisfied; 3) neither satisfied nor dissatisfied; 4) dissatisfied; or 5) very dissatisfied. A disadvantage of the CCHS is thus that we have a 5-point (rather than the more usual 10-point) life satisfaction scale. Further, for reasons of respondent confidentiality, we are forced to aggregate the bottom three categories for the children in our sample when estimating models with covariates (and thus, to maintain comparability, we also aggregate these categories for adults).

CCHS respondents are also asked "How would you rate your sense of belonging to your local community? Would you say it is very strong, somewhat strong, somewhat weak or very weak?" In this case, we analyse the four-point scale.

The income concept measured in the CCHS is 'total family income from all sources.' For 12 to 17 year-old respondents, family income is asked of a parent rather than the child. In the master files of the CCHS, income is top-coded at $500,000 (affecting under one-half of one percent of our sample). In order to account for differences in need for families of different size, we construct 'equivalent household income,' by dividing dollar income by the Luxembourg

Income Study (LIS) equivalence scale (or, the square root of family size). Dollar amount for earlier years are represented in real 2006 figures (using CPI to make the adjustments).

Empirical Results

Life Satisfaction

Figures 1 and 2 illustrate, first of all, that the vast majority of Canadian youth and parents are 'satisfied' or 'very satisfied' with life (with 'satisfied' in all cases the modal response).[7] This is true for both immigrants and non-immigrants. However, within each sub-group (girls, boys, fathers, mothers), immigrants report lower levels of life satisfaction than Canadian-born individuals in the same group. For example, 8.7 percent of immigrant girls report themselves as 'not satisfied' with life compared to 5.9 percent of Canadian girls; 42.5 percent of immigrant boys reports themselves to be 'very satisfied' with life compared to 46 percent of Canadian-born boys. Immigrant parents are especially unlikely to rate themselves as 'very satisfied' with life – only 22.9 percent of immigrant mothers compared to 48.5 percent of Canadian-born mothers; 23.6 percent of immigrant fathers compared to 43.2 percent of Canadian-born fathers. These unconditional differences between immigrants and Canadian-born individuals are all statistically significant in ordered probit regressions of life satisfaction on an immigrant dummy – see Table 1, first row.

Figures 1 and 2 also suggest that: 1) parents are in general less satisfied with life than teens and; 2) the negative association between life satisfaction and immigrant status is larger for parents than for children. To examine these hypotheses more carefully, we estimate ordered probit models of life satisfaction, pooling all observations (girls+boys+mothers+fathers).

[7] These samples illustrate distributions for the well-being questions prior to exclusion of observations for non-response to variables used as co-variates in regression analyses. High levels of non-response to the income question, particularly for youth, is an issue yet to addressed.

Explanatory variables include: a dummy for immigrant status, a dummy for parent status and an interaction between immigrant and parent.

Table 2 confirms the observation that (unconditionally), parents are slightly less satisfied with life than teens; immigrants are less satisfied than Canadian-born respondents; and, immigrant parents are much less satisfied. Using analogous methods, we find the same pattern of results for fathers compared to sons. Results for mothers compared to daughters are slightly different: immigrant females are less satisfied than Canadian-born females; immigrant mothers are much less satisfied; but, there is not a statistically significant difference in reported life satisfaction of Canadian mothers and daughters.

Though there is relatively little economics research[8] on the well-being of immigrant youth (e.g., compared with educational outcomes), other studies have also documented higher levels of immigrant youth well-being than might be expected, given objective life circumstances. "The apparently good mental health of immigrant children is a paradox" claim Beiser and co-authors (2002, p. 220) in an analysis using Canadian data. And, such findings are not limited to the Canadian case. Sam and Virta (2003), for example, find that immigrant adolescents do not, in general, differ from their native-born peers in either Norway or Sweden; though 'girls generally have a poorer psychological adaptation that the boys' (p. 224).

When we compare boys with girls, we find that girls are less satisfied than boys and that immigrant youth are less satisfied than Canadian-born youth, but there is no gender difference in the association between immigrant status and life satisfaction. Finally, when we compare mothers to fathers, we find that while immigrants are less satisfied with life than non-

[8] Psychological research in this area appears to have focused more on negative aspects of mental health (e.g., depression). Harker (2001), Neto (2001) or Sam and Virta (2003) discuss positive psychological adaptation of immigrant youth.

immigrants, there are no statistically significant gender differences in life satisfaction. The lack of gender differences in life satisfaction for parents is surprising, since Canadian happiness research more typically finds women to have higher life satisfaction than men (e.g., Helliwell, 2003). Of course, previous analyses have compared all men and women, not mothers and fathers (though see Burton and Phipps, 2010).

Sense of Belonging to Local Community

Figures 3 and 4 illustrate reported feelings of 'belonging to the local community' for boys, girls, mothers and fathers. Again, in all cases, while the majority of respondents feel at least a 'somewhat strong' sense of belonging to their local communities, immigrants are significantly less likely to do so than Canadian-born respondents. Differences are all statistically significant in ordered probit models of 'belonging' on immigrant dummies (see Table 1, second row).

If we compare the size and statistical significance of the association between immigrant status and feelings of belonging for parents and children using the methods described above for life satisfaction, the pattern of findings is slightly different (see Table 2, final column). The largest difference is that parents feel less 'belonging' than 12 to 17 year olds, with a smaller additional reduction in reported belonging for immigrant parents. For mothers compared to daughters, the mother/daughter difference is again largest, and immigrant mothers are significantly less likely than Canadian-born daughters to feel they belong. For fathers compared to sons, fathers report lower levels of belonging than sons, but there is no statistically significant difference between immigrant and Canadian-born fathers. When we compare boys and girls, boys are less likely to feel a sense of belonging (though they reported higher life satisfaction scores than girls); immigrant children feel less belonging than non-immigrant children, but there

is no statistically additional significant difference between immigrant boys and girls. Mothers report very slightly less belonging than fathers (and the difference is significant only at 10 percent); immigrant mothers are much less likely to feel that they belong to their local communities than Canadian-born mothers.

Correlates of Lower Subjective Well-Being[9]

One of the key questions addressed in this paper is whether lower incomes received by more recent Canadian immigrants helps to explain lower reported life satisfaction. Figures 5 and 6 confirm that in our CCHS data spanning the 2001 to 2008 period, immigrant families do have lower incomes than Canadian-born families. For example, real family equivalent income for our samples of immigrant 12 to 17 year olds is only about three-quarters of what is available to non-immigrant children in the same age range. Immigrant parents live in families with only about two-third the income of non-immigrant parents.[10]

Although our focus is on the potential link between low family incomes and the well-being of immigrant children and parents, it is important to recognize that a number of other known correlates of life satisfaction differ between the immigrant and Canadian-born populations, some of which would be expect to be protective of subjective well-being (e.g., fewer immigrant lone-parent families?) whereas others would be predicted to be further reasons

[9] A caveat is that, with cross-sectional data, we are unable to address the potential issue that immigrants are a 'selected' sample. That is, immigrants might differ in terms of unobservables such as ambition, energy or drive insofar as they were the people who moved from one country to another (while the Canadian-born did not). It isn't clear a priori whether we would expect this to predict immigrants to be more or less satisfied. On the one hand, immigrants might be, for example, particularly optimistic – thinking they can carve out a better future for themselves in a new land. On the other hand, the immigrant experience might not live up to high expectations and so mean dissatisfaction. In general, however, except insofar as relevant unobservables are genetically transmitted or taught within the home (e.g., optimism), we would expect the 'selection' problem to be more acute for parents (who made the decisions) than for children, who most likely did not.

[10] We have as yet done nothing about *relative* income though this is very important in the economic literature on adult happiness literature (e.g., Barrington-Leigh and Helliwell, 2009; D'Ambrosia and Frick, 2004 or 2007; or Ferrer-i-Carbonell, 2005). However, in our case, it is not obvious whether the more important comparator income would be source country or arrival country?

for lower well-being (more younger children?). Tables 3a and 3b report means and frequencies for each sub-population and for all variables used in our analyses, for children and parents, respectively.

Since the majority of Canadian immigrants are selected on the basis of a 'point' system, we would expect parent immigrants to be both more healthy and more well-educated than their Canadian-born equivalents; we would expect children to be healthier since a child with a serious illness or disability would likely both reduce the probability of a family seeking to move to Canada and would also, in many cases, mean they would be denied admission.

The education variable we use in our analyses is the 'highest level of education attained by anyone in the household.' This choice is important when comparing adults and children since 12 to 17 year old children obviously cannot yet have attained post-secondary education. As predicted, 'highest level of education in the household' is always higher for immigrant than Canadian-born respondents.

The measure of health status we employ is self-assessed over-all health, with 5 possible response categories: excellent, very good, good, fair or poor (we aggregate good, fair and poor).[11] For children, self-assessed health status is, as we would expect, higher on average for immigrants (e.g., 27.3 percent of immigrant girls report excellent health status compared to 23.5 percent of Canadian-born girls). For young people, better health would then be protective of life satisfaction. For immigrant parents on the other hand, we find, surprisingly, that health status is lower for immigrant than Canadian-born parents, especially for mothers – 45.7 percent of our sample of immigrant mothers report low health status compared to 31.8 percent of Canadian-born mothers.[12]

[11] Again, this is necessary for reasons of respondent confidentiality.
[12] This seems to warrant future research attention.

In the past, Canadian immigrants were largely white and European. More recently, source countries have changed quite dramatically (Picot and Sweetman, 2005). The result is that immigrants do not now typically have the same ethnic backgrounds as the Canadian-born population. This is particularly true when we compare ethnicities for our samples of parents – in the Canadian-born sample, 96 percent are white compared to less than 30 percent in the immigrant parent sample; the majority of immigrant parents are Asian (East, West or South). Our samples of Canadian-born children are slightly more diverse than the Canadian-born parents, but still about 88 percent are white compared to only about one quarter of immigrant children. Having 'visible minority' status in Canada may be associated with lower levels of subjective well-being for non-white immigrants, for example due to discrimination or lack of comfort with majority culture practices.

A related issue is comfort with English or French. This is somewhat difficult to measure based on self-reported fluency, but lack of facility in an official language may cause difficulties at school or workplace and/or limit social contact and hence affect feelings of belonging (outside one's own linguistic group). The measure of language we employ is a categorical variable indicating simply that 'language spoken at home is neither English nor French.' About half of immigrant children use a language other than English or French at home; two thirds of immigrant parents use a 'non-official' language at home. Children in our sample are all of school age, thus regardless of home language, they will be forced to develop skills in either English or French.[13] Parents with paid employment will mostly also have to acquire English/French skills (unless employed by a co-ethnic). Parents (mostly mothers) who do not work outside the home may have less need to develop official language skills.

[13] Very few immigrant children reported themselves as unable to 'converse' in English or French, hence we did not choose to use this alternative measure of language competency, although it is available in the CCHS.

Canadian immigrants are most likely to move to larger urban centres (e.g., Vancouver, Toronto, Montreal). Thus, the geographic distribution of the immigrant and Canadian-born populations are very different. Many Canadian studies of subjective well-being have found higher reported life satisfaction in rural communities and in Atlantic Canada (e.g., Helliwell, 2003). Of course, a new immigrant moving to a rural Atlantic Canadian community may not experience the same sense of belonging and life satisfaction in this environment as a native, but it seems important to control for geography provided care is taken in interpretation.[14]

Ordered Probit Results for Life Satisfaction

Size and Significance of 'Immigrant' as Additional Co-variates Added

We have demonstrated in Table 1 that immigrant girls, immigrant boys, immigrant mothers and immigrant fathers all report lower life satisfaction than their Canadian-born equivalents. In this section, we being to ask 'why'? For example, to favour our central hypothesis, does the negative association between immigrant status and subjective well-being become smaller or even disappear after we control for income?

In Table 4, we illustrate what happens to the size and significance of the estimated coefficient on 'immigrant' in a series of ordered probit models in which we start with immigrant as the only explanatory variable, then successively add: 1) personal characteristics (age and health status); 2) family characteristics (highest education level, family size and family structure); 3) (log of) equivalent family income; 4) region and urban/rural status; 5) ethnicity/language.

[14] Children do not answer questions about their parents' labour market behaviour (either hours of paid work or unemployment). Hence, we cannot include these variables in our estimated models. However, we have run separate models for parents only and do find that unemployment, in particular, is an important correlate of life satisfaction for parents.

For boys, the immigrant dummy is only statistically significant at the 10 percent level even unconditionally. Thus, as soon as we control even for basic personal characteristics (age and health status), the immigrant dummy is no longer significant. The size of the association drops in half when family income is controlled. For girls, the size of the (negative) 'immigrant' association actually becomes larger as controls for personal and family characteristics are added to the model. This is plausible since immigrant girls are healthier and are less likely to live in lone-parent households. The size of the association drops by about a quarter after family income is controlled, but it remains statistically significant. The negative association between being an immigrant and feeling satisfied with life is entirely mediated after we add ethnicity and language to the model. That is, if we compare two girls with the same age, health status, family size and structure, family income, region of residence, ethnic background, and home language, there is no remaining statistically significant difference between a Canadian-born and immigrant girl.

For parents, although the size of association falls considerably when we control for income and again when we control for ethnicity and language, a strong negative association, approximately half the original 'unconditional' size, remains. Thus, for mothers (or fathers), even if we compare two parents with the same age, health status, family size and structure, family income, region of residence, ethnic background, and home language, expected life satisfaction is still much lower for the immigrant than the Canadian-born mother (or father). Indeed, the size of this final negative association for parents is larger than the starting out difference for children.

In summary, for immigrant children we can understand why they feel the way they do in terms of their observed life circumstances; Canadian children with the same incomes, ethnicity and health status, etc report the same levels of life satisfaction. For the parents, more is going

on. While circumstances partially explain lower life satisfaction, an additional 'immigrant' effect remains.

Full Ordered Probit Results for Life Satisfaction

Table 5 reports full estimated ordered probit models for the final specification that includes all covariates. Since, in absolute terms, it is difficult to judge what is a 'large' association between life satisfaction and immigrant status, comparison with other key correlates provides useful context. Consistent with past literature, our estimates suggest that having poor health is one of the most important reasons for having low life satisfaction. To put the immigrant association in perspective, for parents, the immigrant coefficient reported in Table 5 is about half that reported for 'having poor health.'

The 'side by side' reporting of estimates for girls/boys/mothers/fathers is also intended to facilitate a comparison of the correlates of life satisfaction across these groups. Notice, first, that the size and significance of some personal characteristics are remarkably similar for parents and children. Self-assessed health status is a good example; number of children less than 12 is another (although number of younger siblings is not significant for boys). On the other hand, important differences in the correlates of life satisfaction for parents and children are also apparent. For example, being a lone parent is associated with much lower life satisfaction for parents themselves than is living in a lone-parent family for children (indeed, living in a lone-parent family is not even statistically significant for boys).

Of particular interest to us is that, consistent with the hypotheses discussed above, we find that the (log of) family equivalent income has a much larger (positive) association with parental life satisfaction than with child life satisfaction (though family income is an important

correlate of child life satisfaction, too). If we pool all observations, children and parents together, and add a dummy for 'parent' and an interaction between 'parent' and (log of) family equivalent income, the coefficient on the income/parent interaction is positive and strongly statistically significant.

Neither ethnic background nor home language is statistically significant for girls or boys (at least, when immigrant status is also included in the model). This could reflect the fact that the Canadian-born population of children is more ethnically diverse than the adult Canadian-born population; or, it could be because public schools officially promote multi-cultural perspectives? For parents, having an East Asian ethnic background is associated with lower reported life satisfaction as is having a Black ethnic background; other associations between life satisfaction and ethnicity are not apparent. For fathers only, speaking a language other than English or French at home is associated with lower life satisfaction.[15]

Life Satisfaction and Years Since Arrival[16]

Since one might hope that some of the negative implications for life satisfaction of being an immigrant would begin to dissipate with time, we have also run all models including 'years since arrival' as a control variable (see Table 6). Unfortunately, for children and for mothers, 'years since arrival' is never statistically significant in any of the life satisfaction models (even when we control for nothing else except immigrant status). For fathers, years since immigration

[15] We have also estimated models of life satisfaction for parents, including unemployment as a predictor variable. Immigrant parents are much more likely to be unemployed than Canadian-born parents (2.0 percent for non-immigrant fathers compared to 6.8 percent for immigrant fathers; 2.5 percent for Canadian-born mothers and 5.2 percent for immigrant mothers). Unemployment is a highly significant (and negative) and negative correlate of life satisfaction, twice as large for fathers as mothers. It does not, however, mediate the negative association with immigrant status for parents. We cannot estimate similar models for children whose parents are unemployed as this information is not provided in the CCHS.

[16] For immigrants who report having lived in Canada for 'less than one year,' we set 'years since arrival' equal to 0.5. Since 'years since arrival' is an interaction with 'immigrant,' it takes a value of zero for all non-immigrants.

is statistically significant (in at least one specification) until family equivalent income is included. This could be because years since arrival is a good proxy for father's income; that is, as years in Canada increase, income increases. Indeed, Picot and Sweetman (2005) summarize Canadian research finding effectively zero returns to foreign work experience in the Canadian labour market. [17]

Ordered Probit Results for Belonging

In this section we turn to our second measure of subjective well-being – individual feelings of 'belonging to the local community.' Table 7 reports the estimated size and statistical significance of the coefficient for immigrant status in ordered probit models of 'belonging.' As before, we illustrate what happens to the 'immigrant' coefficient as additional sets of covariates are successively added to the estimation model. In contrast with our findings for child life satisfaction, the negative association between belonging and immigrant status is not mediated through the observable characteristics included in our estimating models. For boys, the negative association between feelings of belonging and immigrant status remains until region and urban/rural status are controlled. For girls, the negative association between immigrant status and belonging remains does not become smaller and remains statistically significant even with all controls included (including ethnicity and home language). This is consistent, for example, with Berry (1997) or Sam and Virta (2003) who find that immigrant girls have lower levels of psychological adaptation than boys. For parents, on the other hand, while the negative association between life satisfaction and immigrant status remains in every model estimated, it

[17] "Highest level of education in the family" is not significant in any specifications. Although education is included with other household variables, we do not report or further discuss these variables.

disappears for fathers once ethnicity is controlled; it remains statistically significant for mothers, though it is reduced to about half the unconditional size of association.

Table 8 reports all coefficients for the full ordered probit model of belonging. Again, this helps to put the size of the association between belonging and immigrant status in perspective. For girls, the negative association between immigrant status and feeling a sense of belonging to the local community is nearly identical to that estimated for having low health status, the largest estimated. For mothers, while the immigrant coefficient is only about half that estimated for girls, it is also true that poor health and immigrant status have very similar estimated size of association (though for mothers, being a lone parent has even larger negative associations).

As was also true for life satisfaction, the side-by-side presentation of adult and child ordered models reveal some very similar patterns for children and adults. Health status, for example, correlates strongly with reported feelings of belonging for boys, girls, mothers and fathers. Regional patterns are also similar for all groups, with higher levels of belonging reported for residents of Atlantic Canada and lower levels reported for residents of Quebec. (Regional associations with life satisfaction were not apparent for children.) Family income, notably, does not exhibit any relationship with feelings of belonging for any group, though it is a strong correlate of life satisfaction for every group. Living in a lone-parent family has negative associations with feelings of belonging, but the size of association is again much larger for the adults than the children). Having either younger children in the family or additional household members (either additional teens or other adult family members) is associated with higher reported belonging for parents but not for teens. Additional children may plausibly increase parental community attachments through their children, for example through school or recreational activities where they meet other parents; this would be less likely for siblings. In

terms of ethnic patterns, we find East Asian ethnic background to correlate negatively with belonging for fathers and sons; South or West Asian ethnic background has very large and *positive* associations with belonging for mothers and daughters. Since 'local community' is self-defined by the respondent, it is not clear whether this reflects strong feelings of belonging to the local community in the sense of geography or strong belonging to the local ethnic community (which could also be the same thing).[18] Note also that a significant body of research in social psychology finds that individuals experiencing discrimination as a result of group membership often increase their sense of identification with that group (e.g., Branscombe, et al., 1999). Reported belonging is lower for mothers who do not speak English or French at home; this association is not apparent for any other group.[19]

Belonging and Years Since Arrival

Again, an especially important policy question is whether feelings of belonging increase with years in Canada. For girls and boys, we do not find evidence that this is the case.[20] For parents, when we control for years since arrival, the negative coefficient on immigrant is, plausibly, larger for the most recent immigrants, but declines linearly[21] with years in Canada (see Table 9). Estimates thus suggest that the negative association between 'belonging' and immigrant status should, on average, disappear after roughly 15 years which is almost the maximum possible for our sample (and almost twice the mean) since we have restricted to parent

[18] Neto (2001) finds that immigrant adolescents in Portugal have higher satisfaction with life if they live in more ethnically homogeneous communities.

[19] In models of belonging estimated for parents only, we find that mothers' feelings of belonging are significantly higher when they participate in paid work part-time. See also Burton and Phipps, 2010 or Booth and van Ours, 2008.

[20] Indeed, the coefficient on years since arrival is actually negative and (barely) significant for girls without any additional covariates included (see middle specification in Table 8).

[21] We have experimented with alternative functional forms for years since immigration (quadratic and a dummy for 'less than 2 year.' Neither variant was statistically significant for any sub-group.

immigrants to those who have lived in Canada no more than 17 years for consistency with maximum possible duration of time in Canada for child immigrants.

Belonging as an Explanatory Variable for Life Satisfaction?

Although we have thus far treated life satisfaction and belonging as separate outcome variables, an important theme in the 'happiness' literature is that positive social relationships are central to well-being. Thus, Table 10 reports estimates in which we include 'belonging' as an *explanatory* variable in our estimated models of life satisfaction. For this purpose we construct a dichotomous indicator of 'having a strong or very strong sense of belonging to the local community. We do, however, acknowledge that with our cross-sectional data we can do nothing about potential spurious correlation – for example, if 'cheerful people' report both high levels of life satisfaction and high levels of belonging. The main points we wish to draw from Table 10 are, first, that for parents, while having a strong/very strong sense of belonging to the local community has a very strong, positive association with life satisfaction, including belonging as a covariate does not fully mediate the association between immigrant status and well-being. For children, the connection between feelings of belonging and life satisfaction is even larger and for boys in particular, once belonging is included as a covariate, the relationship between immigrant status and life satisfaction is no longer apparent. This suggests that for children, feelings of belonging are a particularly important pathway from immigrant status to life satisfaction.

De-Composition Analyses

A decomposition methodology is often employed in the economics literature when attempting to understand differences in outcomes between groups with different characteristics. This section reports the results of Blinder/Oaxaca de-composition analyses[22] that ask: 1) how much of the observed differences in well-being between immigrants and Canadian-born respondents is explained by differences in observed characteristics; and, 2) is the proportion explained different for children and adults? Although we have focused on ordered probit models of life satisfaction and belonging as the correct econometric procedure for these categorical dependent variables, in fact, OLS models give qualitatively the same results. Thus, for the de-compositions we use OLS regressions (and Blinder/Oaxaca de-compositions) in order that we can approximate the individual contributions of groups of explanatory variables.[23]

The first point made in Table 11 is that there are larger immigrant/non-immigrant differences in life satisfaction to be explained for parents than for children; and, a smaller proportion of the observed gap is explained by the characteristics included in our full estimating model for parents (about 2/3 for parents, ¾ for boys and 85% for girls). Differences in personal characteristics (age and health status) are not a very important part of the story for fathers and sons; personal differences are protective for daughters (e.g., immigrant girls have better health) but explain 18.6 percent of the observed immigrant/non-immigrant gap in life satisfaction for mothers (immigrant mothers have much lower health status than non-immigrant mothers). Household characteristics are (very slightly) protective of the life satisfaction of immigrants

[22] See the original contributions of Blinder (1973) and Oaxaca (1973). To carry out the decomposition we use the code supplied by Jann (2008). We use pooled coefficients, incorporate an immigrant dummy and normalize categorical variables to avoid sensitivity of results to choice of base category (see also Fortin, 2006).

[23] We have also run Bauer/Sinning (2008) decompositions with the ordered probit models and Faerlie (2003) decompositions for probit estimates of the probability of having 'low life satisfaction' or 'low feelings of belonging' though these provide only estimates of the portion of observed differences in well-being 'explained' by all characteristics included in the model.

compared to Canadian-born respondents for all groups (e.g., there are fewer lone-parent families in the immigrant group). Lower incomes of immigrant families explain from 20 percent (mothers) to 30 percent (sons) of the observed gap.[24] Differences in region of residence between immigrant and non-immigrant respondents, while large, are not an important reason for observed differences in life satisfaction. Differences in ethnicity and language, not surprisingly, are extremely important. This is particularly true for girls and women. From our data, we cannot tell whether this is due to perceived discrimination or, perhaps, differences in culture/values/attitudes between home and community?

Blinder/Oaxaca de-compositions for belonging are reported in the second section of Table 11. In this case, the parent/child differences in what needs to be explained are much smaller and our differences in characteristics included in our estimated models explain a much smaller proportion of the total immigrant/non-immigrant gaps. For example, differences in characteristics explain only about half for parents; about 40 percent for boys and actually predict that immigrant girls should have higher feelings of belonging. The large immigrant/non-immigrant differences are a much less important explanation for belonging than for life satisfaction. For parents, differences in region of residence are actually the most important factor.

Conclusions

This study adds to the currently very small economics literature on child happiness, with a focus on the vulnerable and highly policy relevant group of child immigrants. A particularly novel aspect of our work is that we provide direct comparisons of both levels and correlates of

[24] If we add 'belonging' to the life satisfaction model, the percent explained increases from about 63.1 percent to 65.7 percent for fathers; from 65.3 percent to 68.8 percent for mothers; from 85 percent to 111 percent for girls; from 74 percent to 88.9 percent for boys.

life satisfaction and belonging for parents and children, using a data set (the Canada Community Health Survey) that asks children (aged 12 to 17) and adults the same survey questions.

Our conclusions at this stage in the research process are that both child and parent immigrants have lower levels of life satisfaction than Canadian-born peers. The size of the association is larger for parents (about half that estimated for poor health) and remains statistically significant even when we control for personal, household, economic, geographic and ethnic/language variables. The well-documented low incomes received by new Canadian immigrants are also evident in our data and are one important, and policy relevant, explanation for lower immigrant life satisfaction. Although income is an important correlate of life satisfaction for both parents and children, the association is larger for parents – perhaps, at least in part, because parents attempt to shelter their children from economic hardship? A troubling finding is that there is no apparent improvement in life satisfaction for immigrant parents or children who have lived longer in Canada.

Given European experiences with alienation among immigrant youth, we also examine 'belonging to the community' as another aspect of well-being; lower levels of belonging are reported by immigrant youth, especially girls, than by their Canadian peers. Indeed, for girls, immigrant status is one of the largest (negative) correlates of belonging identified. The same is true for parents, but the size of the association is smaller and appears to decline over time for parents.

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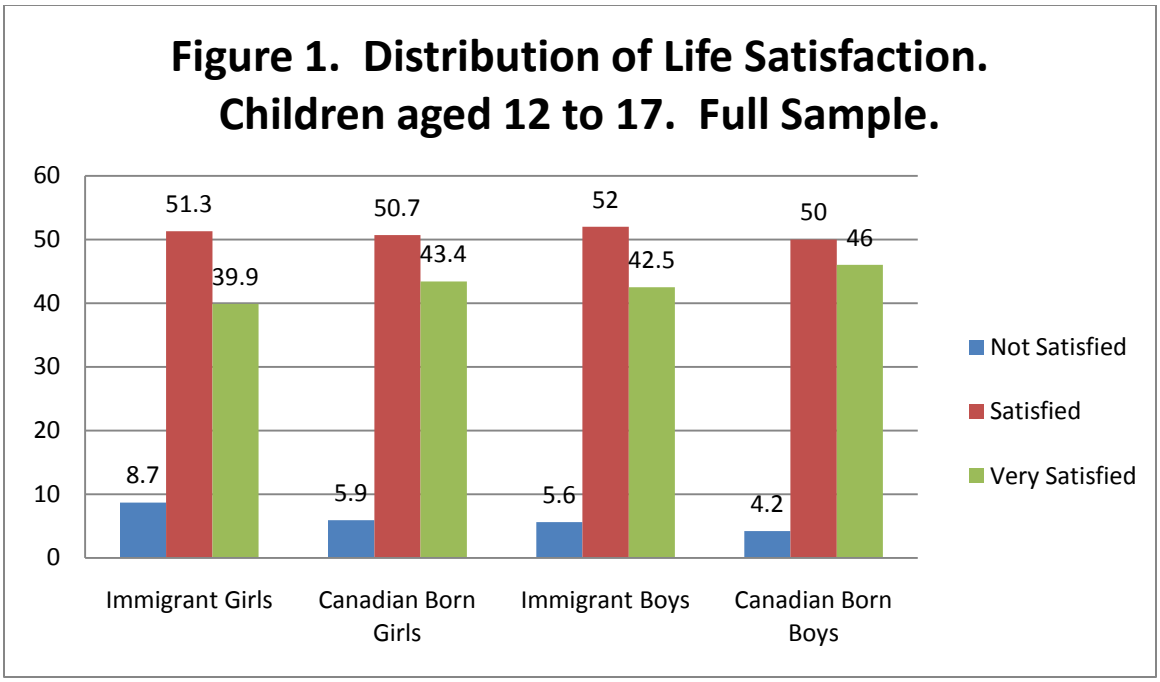
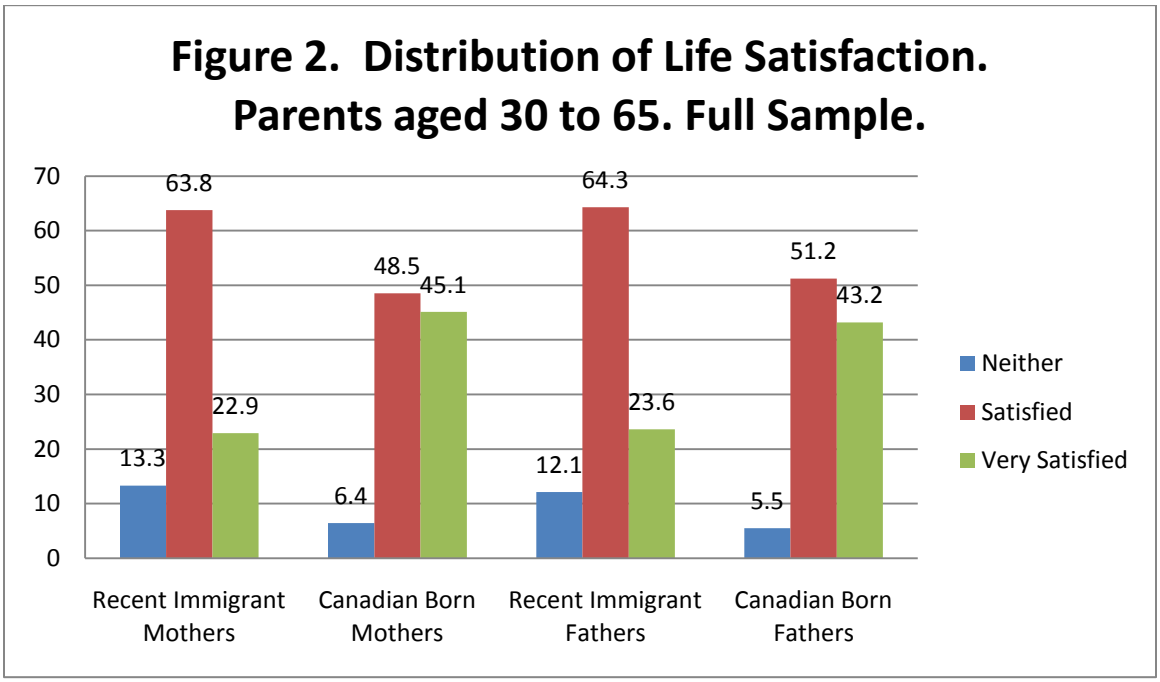
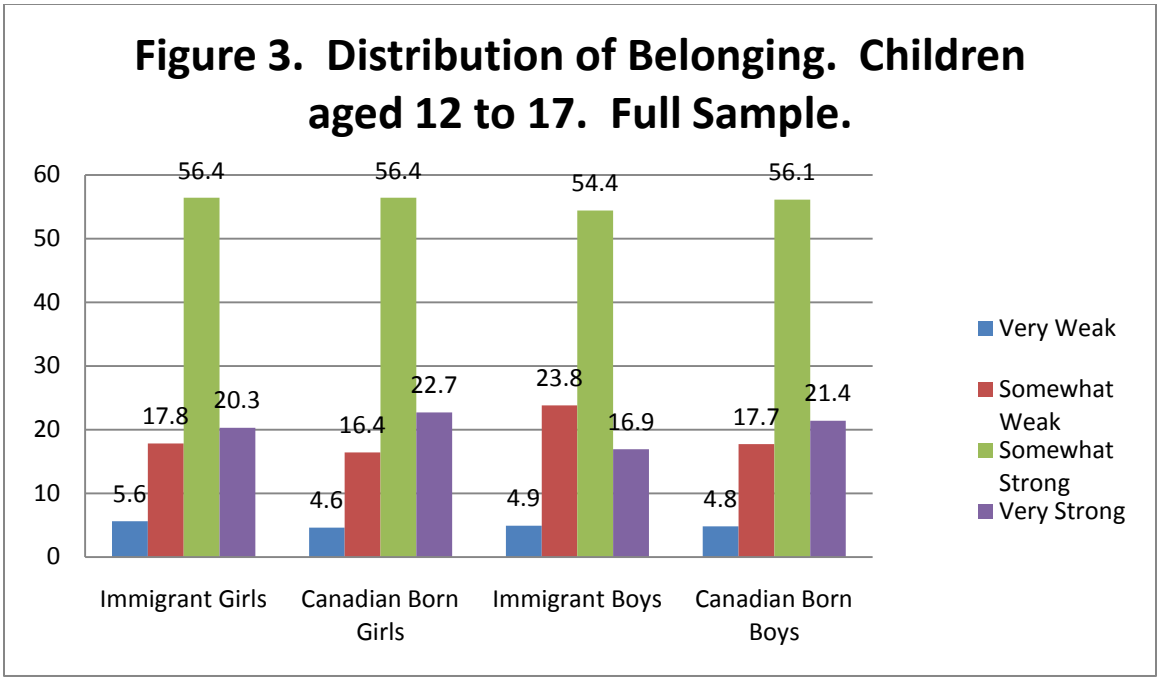
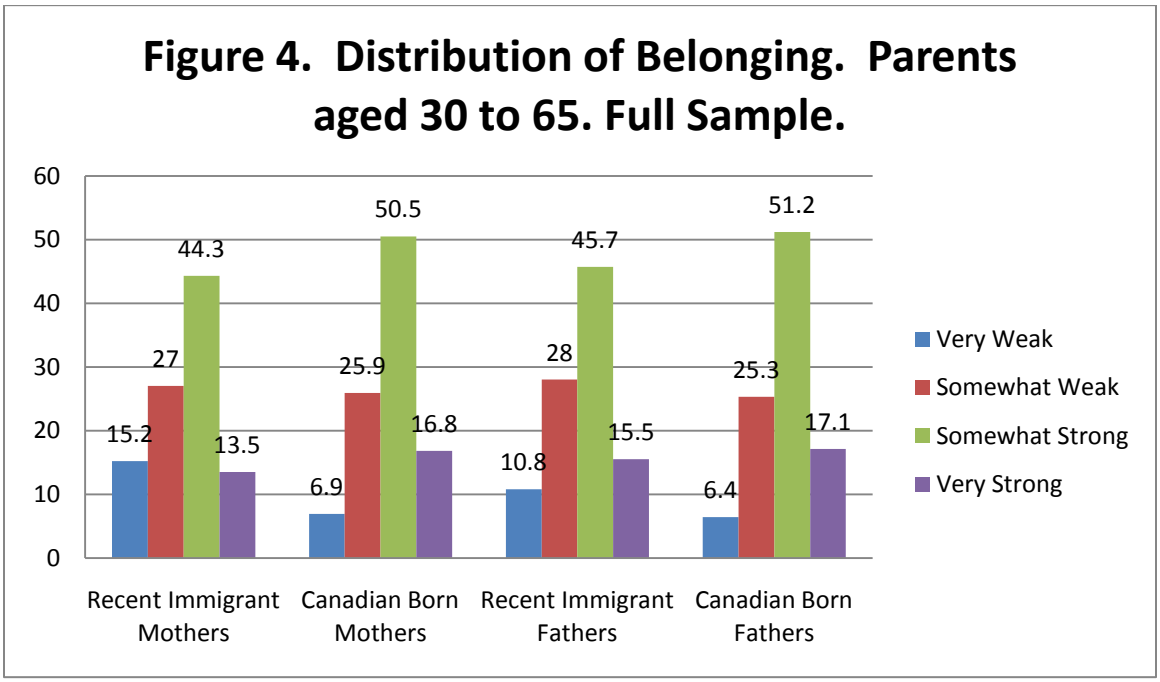


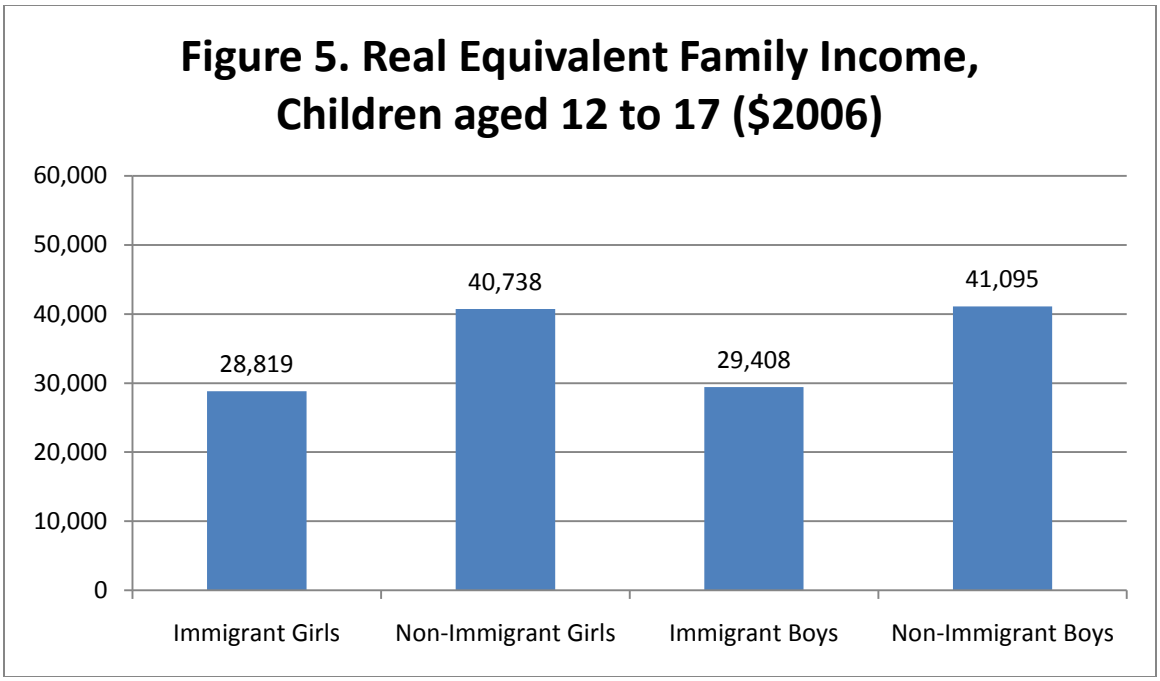


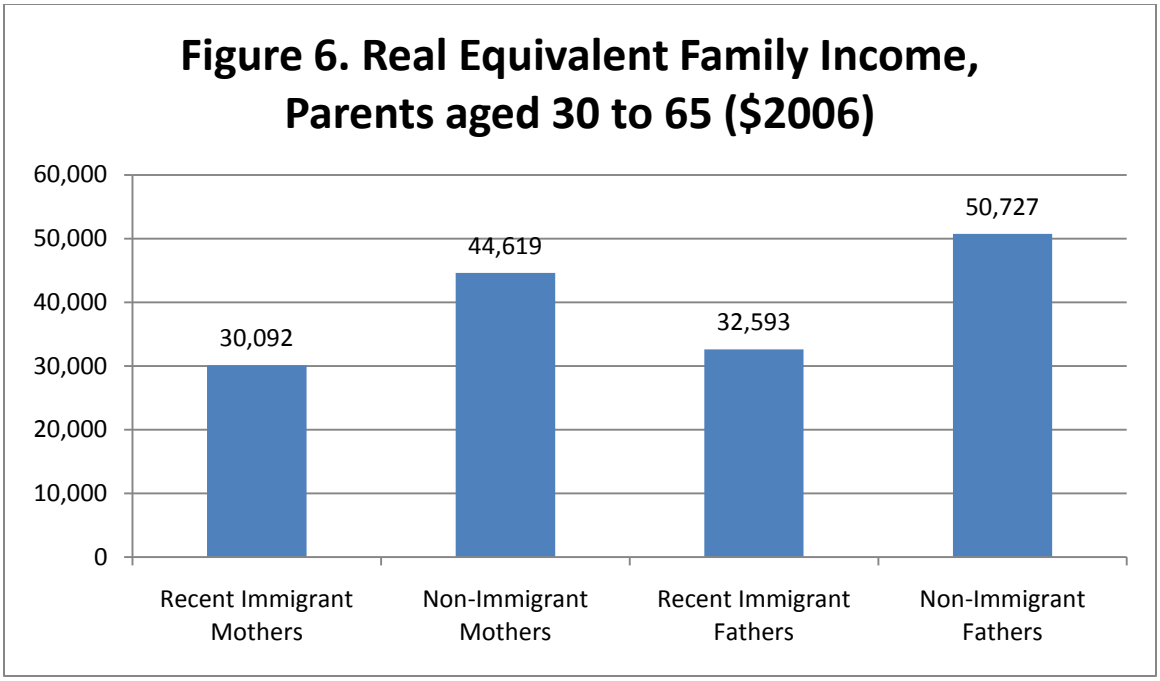
CCHS respondents are asked: "How satisfied are you with your life in general?" Possible responses are: 1) very satisfied; 2) satisfied; 3) neither satisfied nor dissatisfied; 4) dissatisfied; or 5) very dissatisfied. We have aggregated responses 1), 2) and 3) due to small cell size. Differences between immigrant and non-immigrants are statistically significant for each comparison.





CCHS respondents are asked: "How would you rate your sense of belonging to your local community? Would you say it is very strong, somewhat strong, somewhat weak or very weak?"
Differences between immigrant and non-immigrants are statistically significant for each comparison.





Equivalent income is 'total family income from all sources,' adjusted for family size using the Luxembourg Income Study (LIS) equivalence scale (or, the square root of family size). Dollar amount for earlier years are represented in real 2006 figures (using CPI to make the adjustments).

Table 1. Ordered Probit Estimates of (Unconditional) Association Between Immigrant Status and Measures of Well-Being Within Population Sub-groups.

Within Group Tests for Statistically Significant Association Between Immigrant and Life Satisfaction (1 to 5 Scale)	Girls	Boys	Mothers	Fathers
Immigrant	-0.158* (0.061)	-0.118* (0.065)	-0.530*** (0.034)	-0.532*** (0.035)
Within Group Tests for Statistically Significant Association Between Immigrant and Belonging (1 to 4 Scale)				
Immigrant	-0.197*** (0.071)	-0.165*** (0.058)	-0.282*** (0.039)	-0.175*** (0.037)
Number of Observations	9,345	10,154	27,470	23,417

Cycle dummies included in all specifications; standard errors are reported in parentheses; * indicates statistically significant at 10 percent; ** indicates statistically significant at 5 percent; *** indicates statistically significant at 1 percent

Table 2. Ordered Probit Estimates of Differences in (Unconditional) Association Between Immigrant Status and Life Satisfaction Between Population Sub-groups.

	Life Satisfaction	Belonging
Parents Compared to Children:		
Immigrant	-0.121***	-0.120***
	(0.039)	(0.033)
Immigrant X Parent	-0.391***	-0.101**
	(0.044)	(0.011)
Parent	-0.044***	-0.232***
	(0.012)	(0.011)
Number of Observations	107,706	107,706
Mothers Compared to Daughters		
Immigrant	-0.140**	-0.091*
	(0.047)	(0.059)
Immigrant X Mother	-0.385***	-0.178***
	(0.015)	(0.057)
Mother	0.004	-0.266***
	(0.016)	(0.015)
Number of Observations	57,332	57,332
Fathers Compared to Sons		
Immigrant	-0.107**	-0.145***
	(0.050)	(0.045)
Immigrant X Father	-0.393***	-0.026
	(0.059)	(0.056)
Father	-0.094***	-0.197***
	(0.017)	(0.016)
Number of Observations	50,374	50,374
Boys Compared to Girls		
Immigrant	-0.107**	-0.151***
	(0.050	(0.047)
Immigrant X Girl	-0.045	0.055
	(0.080)	(0.068)
Girl	-0.083***	0.048***
	(0.018)	(0.018
Number of Observations	41,273	41,273
Mothers Compared to Fathers		
Immigrant	-0.483***	-0.166***
	(0.030)	(0.033)
Immigrant X Mother	-0.051	-0.102**
	(0.041)	(0.047)
Mother	0.015	-0.024*
	(0.015)	(0.014)
Number of Observations	66,433	66,433

Cycle dummies are included in all specifications; standard errors are reported in parentheses; * indicates statistically significant at 10 percent; ** indicates statistically significant at 5 percent; *** indicates statistically significant at 1 percent. Five categories for life satisfaction are used for these estimates.

Table 3a. Means and Frequencies. Estimating Sample. Children aged 12 to 17.

	Immigrant Girls	Canadian-Born Girls	Immigrant Boys	Canadian-Born Boys
Equivalent Family Income ($2006)	28,819	40,738	29,408	41,095
Basic Personal characteristics				
Child's age				
Age 12 or 13 (%)	32.8	35.0	28.7	36.8
Age 14 or 15 (%)	32.9	36.0	35.2	34.9
Age 16 or 17 (%)	34.3	29.1	36.1	28.2
Child's self-assessed health status				
Excellent (%)	27.3	23.5	30.1	27.8
Very Good (%)	44.2	45.5	40.3	43.4
Good/Fair/Poor (%)	28.5	31.2	29.6	28.9
Basic Family characteristics				
Lone-Parent Family (%)	15.4	19.1	15.8	18.5
Number of children under 12	0.62	0.47	0.53	0.46
Number of other household members (other than parents)	0.86	0.89	0.86	0.89
Highest Education level of education in family				
Less than high school (%)	4.3	4.3	3.9	4.4
High school (%)	13.5	18.0	12.8	19.2
Post-secondary (%)	82.1	77.7	83.3	76.5
Ethnicity				
White (%)	24.2	88.0	26.0	87.4
East Asian (%)	31.3	3.3	27.4	2.8
South or West Asian (%)	22.5	1.8	27.7	1.9
Black (%)	9.7	1.2	8.3	1.6
Other non-white (%)	12.3	5.7	10.6	6.3
Home Language neither English nor French	48.8	2.8	53.2	3.0
Years Since Arrival	7.8		7.5	
Region				
Atlantic (%)	0.8	7.7	0.7	7.4
Quebec (%)	14.8	23.6	11.5	23.1
Ontario (%)	61.4	41.3	62.2	41.0
West (%)	22.9	27.4	25.6	28.5
Rural	4.8	22.2	1.4	21.2
Number of Observations	507	8838	633	9521

Table 3b. Means and Frequencies. Estimating Sample. Parents aged 30 to 65.

	Recent Immigrant Mothers	Canadian-Born Mothers	Recent Immigrant Fathers	Canadian-Born Fathers
Equivalent Family Income ($2006)	30,091	44,619	32,593	50,727
Basic Personal characteristics				
Age	40.5	42.0	42.3	43.5
Self-assessed health status				
Excellent (%)	19.5	26.1	22.3	23.8
Very Good (%)	34.9	42.1	37.0	42.6
Good/Fair/Poor (%)	45.7	31.8	40.7	33.6
Basic Family characteristics				
Lone-Parent Family (%)	14.6	17.6	1.7	5.6
Number of children under 12	0.99	0.91	1.2	0.96
Number of other household members (other than parents)	0.90	0.97	0.75	0.91
Highest Education level of education in family				
Less than high school (%)	3.1	2.9	2.8	2.0
High school (%)	10.3	15.7	10.8	13.9
Post-secondary (%)	86.5	81.4	86.4	84.1
Ethnicity				
White (%)	29.0	95.6	27.3	96.0
East Asian (%)	31.1	0.7	27.5	0.7
South or West Asian (%)	22.0	0.2	27.9	0.2
Black (%)	6.7	0.4	6.2	0.3
Other non-white (%)	11.2	3.1	11.1	2.8
Home Language neither English nor French (%)	67.2	0.8	69.8	0.6
Years Since Arrival	8.8		8.5	
Region				
Atlantic (%)	0.8	9.1	0.9	9.0
Quebec (%)	13.1	25.5	15.2	25.8
Ontario (%)	58.5	37.6	59.5	36.8
West (%)	27.6	27.8	24.5	28.4
Rural	2.9	22.1	2.4	23.3
Number of Observations	2,371	25,099	2,175	21,242

Table 4. Size and Statistical Significance of Immigrant Dummy in (3 category) Ordered Probit Models of Life Satisfaction as Sets of Explanatory Variables added.

Specification:	Girls	Boys	Mothers	Fathers
Immigrant Dummy only	-0.158* (0.061)	-0.118* (0.065)	-0.530*** (0.034)	-0.532*** (0.035)
+ Basic Personal characteristics (age and health status)	-0.192** (0.083)	-0.114 (0.071)	-0. 463*** (0.034)	-0.521*** (0.036)
+ Basic Family characteristics (family structure, family size and highest level of education by household member)	-0.202** (0.084)	-0.113 (0.071)	-0.506*** (0.034)	-0.541*** (0.036)
+ Family Equivalent Income	-0.156* (0.084)	-0.081 (0.072)	-0.402*** (0.034)	-0.405*** (0.037)
+ Region and Urban/Rural status	-0.187** (0.091)	-0.067 (0.079)	-0.372*** (0.035)	-0.371*** (0.039)
+ Ethnicity/Language spoken at home	-0.051 (0.107)	-0.035 (0.095)	-0.210*** (0.054)	-0.218*** (0.068)
Number of Observations	9,345	10,154	27,470	23,417

Cycle dummies included in all specifications; standard errors are reported in parentheses; * indicates statistically significant at 10 percent; ** indicates statistically significant at 5 percent; *** indicates statistically significant at 1 percent

Table 5. Ordered Probit Models of Life Satisfaction (3-category).

	Girls	Boys	Mothers	Fathers
Immigrant	-0.051	-0.035	-0.210***	-0.218***
	(0.107)	(0.095)	(0.054)	(0.068)
Self-assessed health				
Excellent	0.287***	0.341***	0.324***	0.400***
	(0.050)	(0.045)	(0.030)	(0.032)
Good/Fair/Poor	-0.561***	-0.429***	-0.609***	-0.531***
	(0.043)	(0.045)	(0.026)	(0.027)
Lone-Parent Family	-0.171***	-0.055	-0.453***	-0.371***
	(0.051)	(0.047)	(0.032)	(0.055)
Number of children under 12	0.054**	-0.017	0.052***	0.053***
	(0.026)	(0.024)	(0.014)	(0.017)
Number of other household members	0.045	0.005	0.076***	0.061***
	(0.030)	(0.025)	(0.016)	(0.018)
(Log) Real Equivalent Family Income	0.090***	0.081***	0.264***	0.296***
	(0.031)	(0.028)	(0.021)	(0.022)
Region				
Atlantic	0.068	-0.047	0.076**	0.088**
	(0.059)	(0.055)	(0.034)	(0.037)
Quebec	0.091	-0.033	0.058*	0.079**
	(0.053)	(0.048)	(0.031)	(0.034)
West	0.023	0.018	0.042	-0.007
	(0.044)	(0.044)	(0.027)	(0.029)
Rural	-0.038	0.072*	0.047*	0.050*
	(0.043)	(0.040)	(0.026)	(0.029)
Ethnicity				
East Asian	-0.158	-0.119	-0.243***	-0.156**
	(0.106)	(0.097)	(0.065)	(0.075)
South or West Asian	-0.196	0.139	-0.020	0.023
	(0.148)	(0.121)	(0.078)	(0.080)
Black	-0.009	0.116	-0.371***	-0.222*
	(0.194)	(0.152)	(0.123)	(0.131)
Other Non-White	-0.096	-0.063	-0.065	-0.023
	(0.071)	(0.070)	(0.053)	(0.059)
Home Language not English or French	-0.134	-0.097	-0.092	-0.156**
	(0.109)	(0.102)	(0.061)	(0.069)
Number of Observations	9,345	10,154	27,470	23,417
Pseudo-R-squared	0.0629	0.0444	0.1138	0.0930

Standard errors are reported in parentheses; * indicates statistically significant at 10 percent; ** indicates statistically significant at 5 percent; *** indicates statistically significant at 1 percent. Cycle, age and education not reported; ordered probit cut points are not reported.

Table 6. Years Since Immigration in Ordered Probit Models of Life Satisfaction (3 category).

Specification	Girls	Boys	Mothers	Fathers
Immigrant Dummy only				
Immigrant	-0.158* (0.061)	-0.118* (0.065)	-0.530*** (0.034)	-0.532*** (0.035)
Plus "years since immigration"				
Immigrant	-0.254 (0.184)	-0.234* (0.135)	-0.574*** (0.071)	-0.620*** (0.069)
Years since immigration	0.007 (0.019)	0.016 (0.016)	0.005 (0.007)	0.010 (0.007)
Plus 'personal and household' characteristics				
Immigrant	-0.285* (0.172)	-0.239 (0.148)	-0.589*** (0.073)	-0.744*** (0.072)
Years since immigration	0.010 (0.018)	0.022 (0.016)	0.009 (0.007)	0.024*** (0.007)
Plus (log of) family equivalent income				
Immigrant	-0.285* (0.172)	-0.239 (0.148)	-0.409*** (0.074)	-0.497*** (0.075)
Years since immigration	0.010 (0.018)	0.022 (0.016)	0.001 (0.007)	0.011 (0.007)
Plus full set of covariates				
Immigrant	-0.097 (0.199)	-0.209 (0.171)	-0.220** (0.092)	-0.307*** (0.097)
Years since immigration	0.006 (0.019)	0.021 (0.017)	0.001 (0.007)	0.009 (0.007)
Number of Observations	9,345	10,154	27,470	23,417

Standard errors are reported in parentheses; * indicates statistically significant at 10 percent; ** indicates statistically significant at 5 percent; *** indicates statistically significant at 1 percent. Cycle dummies are included in all specifications.

Table 7. Estimated Magnitude and Statistical Significance of Coefficient on 'Immigrant' in (4-category) Ordered Probit Models of "Sense of Belonging to the Local Community" as Additional Sets of Explanatory Variables are Added.

Specification:	Girls	Boys	Mothers	Fathers
Immigrant Dummy only	-0.197*** (0.071)	-0.165*** (0.058)	-0.224*** (0.031)	-0.136*** (0.028)
+ Basic Personal characteristics (age and health status)	-0.209*** (0.072)	-0.130** (0.058	-0.196*** (0.031)	-0.121*** (0.029)
+ Basic Family characteristics (family structure, family size and highest level of education by household member)	-0.214*** (0.073)	-0.137** (0.058)	-0.201*** (0.030)	-0.126*** (0.029)
+ Family Equivalent Income	-0.207*** (0.016)	-0.129** (0.059)	-0.191*** (0.031)	-0.111*** (0.029)
+ Region and Urban/Rural status	-0.255*** (0.076)	-0.100 (0.065)	-0.201*** (0.031)	-0.104*** (0.029)
+ Ethnicity/Language spoken at home	-0.215** (0.084)	-0.039 (0.089)	-0.097** (0.043)	-0.066 (0.051)
Number of Observations	9,345	10,154	27,470	23,417

Cycle dummies included in all specifications; standard errors are reported in parentheses; * indicates statistically significant at 10 percent; ** indicates statistically significant at 5 percent; *** indicates statistically significant at 1 percent

Table 8. Ordered Probit Models of Belonging (4-category).

	Girls	Boys	Mothers	Fathers
Immigrant	-0.258***	-0.100	-0.124**	-0.089
	(0.088)	(0.080)	(0.057)	(0.070)
Self-assessed health				
Excellent	0.215***	0.193***	0.169***	0.172***
	(0.049)	(0.044)	(0.025)	(0.029)
Good/Fair/Poor	-0.267***	-0.215***	0.117***	-0.117***
		(0.037)	(0.025)	(0.025)
Lone-Parent Family	-0.116**	-0.085*	-0.172***	-0.210***
	(0.048)	(0.049)	(0.032)	(0.050)
Number of children under 12	0.001	0.089***	0.110***	0.068***
	(0.025)	(0.024)	(0.014)	(0.016)
Number of other household members	0.026	0.018	0.038**	0.088***
	(0.031)	(0.025)	(0.015)	(0.017)
(Log) Real Equivalent Family Income	-0.005	-0.002	0.014	0.024
	(0.029)	(0.027)	(0.020)	(0.020)
Region				
Atlantic	0.141**	0.163***	0.093***	0.198***
	(0.055)	(0.052)	(0.031)	(0.033)
Quebec	-0.202***	-0.110**	-0.332***	-0.300***
	(0.046)	(0.049)	(0.029)	(0.030)
West	0.084**	0.026	0.099	0.083***
	(0.043)	(0.038)	(0.025)	(0.026)
Rural	-0.008	0.069*	0.133	0.126***
	(0.041)	(0.039)	(0.025)	(0.025)
Ethnicity				
East Asian	-0.113	-0.162*	-0.127	-0.212***
	(0.100)	(0.087)	(0.080)	(0.082)
South or West Asian	0.256**	0.156	0.266***	0.109
	(0.103)	(0.098)	(0.097)	(0.090)
Black	-0.045	-0.067	0.093	0.181
	(0.185)	(0.164)	(0.126)	(0.132)
Other Non-White	0.056	-0.162**	-0.035	-0.015
	(0.084)	(0.076)	(0.059)	(0.066)
Home Language not English or French	-0.033	0.014	-0.244***	-0.043
	(0.095)	(0.083)	(0.069)	(0.078)
Number of Observations	9,345	10,154	27,470	23,417
Pseudo-R-squared	0.0466	0.0326	0.0270	0.0225

Standard errors are reported in parentheses; * indicates statistically significant at 10 percent; ** indicates statistically significant at 5 percent; *** indicates statistically significant at 1 percent. Cycle, age and education not reported; ordered probit cut points are not reported.

Table 9. Years Since Immigration in Ordered Probit Models of Belonging (4 category).

Specification	Girls	Boys	Mothers	Fathers
Immigrant Dummy only				
Immigrant	-0.197*** (0.071)	-0.165*** (0.058)	-0.224*** (0.031)	-0.136*** (0.028)
Plus "years since immigration"				
Immigrant	-0.013 (0.143)	-0.234* (0.135)	-0.537*** (0.029)	-0.381*** (0.069)
Years since immigration	-0.028* (0.017)	0.016 (0.016)	0.029*** (0.007)	0.024*** (0.008)
Plus full set of covariates				
Immigrant	-0.130 (0.166)	-0.223 (0.145)	-0.371*** (0.091)	-0.272*** (0.100)
Years since immigration	-0.015 (0.016)	0.015 (0.014)	0.025*** (0.008)	0.019** (0.008)
Number of Observations	9,345	10,154	27,470	23,417

Standard errors are reported in parentheses; * indicates statistically significant at 10 percent; ** indicates statistically significant at 5 percent; *** indicates statistically significant at 1 percent. Cycle dummies are included in all specifications.

Table 10. Size and Statistical Significance of Coefficients on 'Immigrant' and 'Belonging' in Ordered Probit Models of Life Satisfaction (3-category) as additional sets of Covariates Added.

Specification	Variable	Girls	Boys	Mothers	Fathers
Immigrant only	Immigrant	-0.158* (0.084)	-0.118* (0.065)	-0.286** (0.019)	-0.276*** (0.018)
	Belonging 'Strong' or 'Very Strong'	n/a	n/a	n/a	n/a
+ Belonging					
	Immigrant	-0.111 (0.086)	-0.087 (0.065)	-0.256*** (0.019)	-0.259*** (0.018)
	Belonging 'Strong' or 'Very Strong'	0.369*** (0.027)	0.317*** (0.025)	0.135*** (0.007)	0.127*** (0.007)
+ Personal Characteristics (Age and Health Status)					
	Immigrant	-0.154* (0.084)	-0.064 (0.072)	-0.211*** (0.017)	-0.239*** (0.017)
	Belonging 'Strong' or 'Very Strong'	0.296*** (028)	0.268 (0.025)	0.112*** (0.007)	0.109*** (0.007)
+ Family Characteristics (Size, Structure, Education)					
	Immigrant	-0.165* (0.084)	-0.092 (0.071)	-0.225*** (0.006)	-0.247*** (0.017)
	Belonging 'Strong' or 'Very Strong'	0.291 (0.029)	0.269*** (0.025)	0.100*** (0.007)	0.106*** (0.007)
+ (Log of) Family Equivalent Income					
	Immigrant	-0.119 (0.084)	-0.061 (0.072)	-0.176*** (0.016)	-0.181*** (0.018)
	Belonging 'Strong' or 'Very Strong'	0.207*** (0.074)	0.268*** (0.025)	0.098*** (0.006)	0.104*** (0.007)
+ Region/Rural					
	Immigrant	-0.145 (0.091	-0.052 (0.078)	-0.160*** (0.017)	-0.165*** (0.018)
	Belonging 'Strong' or 'Very Strong'	0.286*** (0.027)	0.267*** (0.026)	0.101*** (0.006)	0.107*** (0.007)
+ Ethnicity/Language					
	Immigrant	-0.003 (0.106)	-0.017 (0.095)	-0.192*** (0.054)	-0.206*** (0.067)
	Belonging 'Strong' or 'Very Strong'	0.289*** (0.027)	0.266*** (0.026)	0.217*** (0.014)	0.234*** (0.016)

Standard errors are reported in parentheses; * indicates statistically significant at 10 percent; ** indicates statistically significant at 5 percent; *** indicates statistically significant at 1 percent.

Table 11. De-composition Analyses for OLS Models of Life Satisfaction and Belonging, Including All Co-variates. De-composition Method: Blinder/Oaxaca.

	Girls	Boys	Mothers	Fathers
"Satisfied with Life"				
Difference to be Explained	0.080	0.054	0.285	0.274
Personal Characteristics	-0.013 (-16.3%)	0.003 (5.6%)	0.053 (18.6%)	0.021 (7.7%)
Household Characteristics	-0.003 (-3.8%)	0.000 (0%)	-0.013 (-4.6%)	-0.007 (-2.5%)
Income	0.021 (26.3%)	0.016 (29.6%)	0.053 (18.6%)	0.068 (24.8%)
Geography	0.003 (3.8%)	0.002 (3.7%)	0.014 (4.9%)	0.016 (5.8%)
Ethnicity/Language	0.060 (75%)	0.019 (35.2%)	0.081 (43.5%)	0.076 (27.7%)
Total Explained by All Characteristics together	0.068 (85%)	0.040 (74.1%)	0.186 (65.3%)	0.173 (63.1%)
"Belonging"				
Difference to be Explained	0.136	0.108	0.225	0.135
Personal Characteristics	0.000 (0%)	0.024 (22.2%)	0.029 (12.9%)	0.015 (11.1%)
Household Characteristics	-0.003 (-2.2%)	-0.003 (-2.8%)	-0.006 (-2.7%)	-0.001 (-1%)
Income	0.006 (4.4%)	0.005 (4.6%)	0.011 (4.9%)	0.015 (11.1%)
Geography	-0.002 (-1.5%)	0.002 (1.9%)	0.104 (46.2%)	0.034 (25.2%)
Ethnicity/Language	-0.009 (-6.6%)	0.012 (11.1%)	-0.010 (-4.4%)	0.006 (4.4%)
Total Explained by all Characteristics together	-0.008 (-5.9%)	0.040 (37.0%)	0.128 (56.9%)	0.069 (51.1%)