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The Mom Effect: Family Proximity and the Labour Force Status of Women in Canada

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The Mom Effect: Family Proximity and the Labour Force Status of Women in Canada

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In this paper, we examine the effect of family co-residence and proximity on the labour force participation and working hours of Canadian women. Using Cycle 21 of the Canadian General Social Survey, we describe proximity patterns in Canada and show that the labour force attachment of women is related to the proximity of their mothers. Lower labour market attachment is found for married women without young children who co-reside with their mothers (those women most likely to care for their elderly mothers) and for married women with young children who live more than half a day away from their mothers (those women least likely to benefit from the availability of family provided childcare). On the intensive margin, both married and single women with children work fewer hours if they live far from their mothers. The results hold only for proximity to living mothers (as opposed to proximity to widowed fathers), suggesting that it is the mothers themselves, and not merely the home location, that drives the results. The results are consistent in IV estimations. To the extent that the positive effect of close proximity is related to the availability of grandchild care, policies that impact the labour force behaviour of grandmothers may also impact the labour force behaviour of their daughters. Moreover, the regional patterns in proximity suggest that national childcare and labour market policies may yield different results across the country.

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Executive Summary

We use the 21st cycle of the Canadian General Social Survey (GSS-21) to examine the patterns of family proximity in Canada and the effect of close proximity and co-residence on the labour force participation of women. We argue that the relationship between proximity and labour supply is due to transfers of care, and therefore focus on women and their mothers or mothers-in-law as transfers of care tend to be gendered.

We first consider the determinants of proximity in Canada. This topic has received far more attention in the U.S. and European literature, likely due to the lack of data available on proximity in Canada. The GSS-21 provides proximity in categories to the respondent's mother. We define four subsamples and estimate the determinants of (i) the proximity between married respondents and their mothers; (ii) the proximity of unmarried respondents to their mothers; (iii) the proximity between married spouses to their mothers-in-law and (iv) the proximity between respondents aged 60+ to their children aged 25 and older. Results from the proximity analysis show

- (1) There is evidence of a sibling effect within Canada. That is, only children are less likely to live away from their mothers than those with siblings.
- (2) There is no evidence of a birth-order effect. Although first-born children are less likely to co-reside with their mothers, they are not more likely to live far away, compared to later born siblings.
- (3) There are strong regional patterns in proximity, which we attribute to historical migration and immigration trends in Canada.
- (4) Education, especially education of husbands, and immigration also impact the probability of close proximity.
- (5) The presence of children does not have a measurable effect on proximity, however characteristics that indicate that mothers may have higher need for elder care are correlated with proximity and coresidence.

We next estimate the effect of co-residence and close proximity to mothers or mothers-in-law on the labour force attachment of adult women. Although we hypothesize that the mechanism linking proximity and labour force attachment is the availability of child care and elder care, we do not have data on transfers of care and so are unable to estimate this link directly. Instead, we include proximity categories in labour force participation equations and rely on comparisons across samples to identify potential reasons for the relationship. This strategy has the advantage of capturing not only the effect of predicted or observed transfers of care, but also the insurance effect of care availability. For example, the availability of "back-up" childcare – the ability of grandmothers to respond to emergency calls from the school or to provide childcare at irregular times – may increase the labour supply and productivity of daughters, even if they never use this childcare.

The effect of proximity on labour force attachment is a growing area of research. In empirical research using the SHARE dataset, Dimova and Wolff (2008 and 2011) and Zamarro (2009) estimate the impact of grandchild care on the labour force participation of women in Europe, using proximity as an instrument for childcare. The authors find small positive effects of predicted child care on labour supply. We believe the effects may be underestimated as they rely on estimates of regular childcare transfers and therefore ignore any insurance aspect of childcare. Compton and Pollak (2011) estimate the impact of proximity on labour supply in the U.S. and show a substantial positive effect of close proximity for married women with children, with marginal effects similar to those presented here.

Our regression results indicate

- (1) Close proximity has a positive effect on labour force attachment. Compared to their counterparts living in the same neighbourhood or surrounding area as their mother, married women with young children who live more than half a day away are 11 percentage points less likely to work, and both married and unmarried women with children work fewer hours per week when they live away from their mothers.
- (2) While close proximity has a positive effect on labour market attachment, co-residence has a negative effect. Co-resident married women without children are 16 percentage points less likely to be in the workforce compared to those in the surrounding area.

We consider alternative mechanisms linking proximity and labour force attachment but argue that because the proximity effect is only found for women with young children, these explanations – home town resources and the tied mover effect – are less convincing than the childcare hypothesis. We next estimate an IV analysis to control for the potential endogeneity of proximity. Based on the results from the proximity regressions, we use province of birth and an indicator for whether one is born in the same province as one or both parents to instrument proximity. The results are similar.

The results indicate a need for policy makers to consider intergenerational transfers when designing labour market policies. For example, policies designed to increase the retirement age may reduce the availability of grandmothers to provide childcare, and lower the labour force attachment of the middle generation. Moreover, the regional patterns in proximity suggest that national childcare and labour market policies may yield different outcomes across the country due to patterns of family proximity.

1. Introduction

In this paper, we use the 21st cycle of the Canadian General Social Survey (GSS-21) to examine the patterns of family proximity in Canada and the effect of close proximity and co-residence on the labour force participation of women. We focus on the labour force effects of proximity between women and their mothers or mothers-in-law. We argue that the relationship between proximity and labour supply is due to transfers of care, which tend to be gendered. For example, the labour force attachment of women with young children may be positively influenced by the proximity of their mothers who are able to provide childcare transfers or alternatively may be negatively influenced by their mothers' need of elder care.¹

We first consider the determinants of proximity. This topic has received far more attention in the U.S. and European literature, likely due to the lack of data available on proximity in Canada. To the best of our knowledge, there is no comprehensive study of family proximity in Canada or its impact on labour market behaviour. Fast et al (2004) examine the proximity of all caregivers to the elderly, but not family proximity in general. Although demography and gerontology literatures specifically consider elder care and childcare as motives for proximity, the economic literature tends to focus on migration within the human capital model, (c.f. Glaser and Tomassini (2007), Clark and Wolf (1992), Lin and Rogerson (1995), Rogerson, Weng and Lin (1993), Silverstein (1995), Rogerson, Burr and Lin (1997)). Konrad et al (2002) and Rainer and Siedler (2009) are two recent exceptions in the economic literature in that they focus on the need for care transfers, rather than labour market influences, as motivations for migration. Konrad et al (2002) claim that elder siblings are more likely to live away from their mothers in order to avoid the costs of caring for elderly mothers. Rainer and Siedler (2009) do not find a birth order effect, only a sibling effect: adults who are only children live closer to their mothers compared to adults with siblings. Our results are consistent with Rainer and Siedler (2009). We find evidence of a sibling effect within Canada (only children are less likely to live away from their mothers than those with siblings) but no birth-order effect (first-born children are not more likely to live far away than their later

¹ To maintain consistency, we refer to the first generation as "mothers" or "mothers-in-law", the second generation as '(adult) men or women' and the third generation as 'children'.

born siblings).

We also observe strong regional patterns in proximity, attributable to historical migration and immigration trends in Canada. For example, compared to individuals born in Ontario, those born in the Atlantic provinces are less likely to live near their mothers; however compared to those currently living in Ontario, those currently living in the Atlantic provinces are more likely to live near their mothers.

We next estimate the effect of coresidence and close proximity to mothers or mothers-in-law on the labour force attachment of adult women. Although our hypothesis is that the mechanism linking proximity and labour force attachment is the availability of child care and elder care, we do not have data on transfers of care and so are unable to estimate this link directly. Instead, we include proximity categories in labour force participation equations and rely on comparisons across samples to identify the possible reasons for the relationship. This strategy has the advantage of capturing not only the effect of predicted or observed transfers of care, but also the insurance effect of care availability. For example, the availability of “back-up” childcare – the ability of grandmothers to respond to emergency calls from the school or to provide childcare at irregular times – may increase the labour supply and productivity of daughters, even if they never use this childcare.

The effect of proximity on labour force attachment is a growing area of research. Cardia and Ng (2003) and Belan, Mess and Wolff (2009) develop overlapping generations models that allow for intergenerational transfers of care. Both models predict that child care transfers from grandparents have positive impacts on the labour supply of women with children. A few papers have empirically tested the hypothesis using the European SHARE dataset.² Dimova and Wolff (forthcoming and 2008) and Zamarro (2009) estimate the impact of grandchild care on the labour force participation of women, using proximity as an instrument for childcare. The authors find small positive effects of predicted child care on labour supply. We believe the effects may be underestimated as they rely on estimates of regular childcare transfers and therefore ignore any insurance aspect of childcare. Compton and Pollak (2011) estimate the impact of proximity on

² SHARE is the Survey of Health, Ageing and Retirement in Europe, a large multi-country panel covering over 45,000 individuals over the age of 50.

labour supply in the U.S. and show a substantial positive effect of close proximity for married women with children.

Our regression results indicate a strong effect of living in close proximity to one's mother. Compared to their counterparts living in the same neighbourhood or surrounding area as their mother, married women with young children who live more than half a day away are less likely to work, and work fewer hours. For unmarried women, this labour market effect is found only on the intensive margin. The marginal effects are large: women with children living away from their mothers work 8-11 fewer hours per week than those living in the same surrounding areas. While close proximity has a positive effect on labour market attachment, co-residence has a negative effect, especially for women without children. We consider alternative explanations for the proximity-labour force attachment relationship but argue that because our results are found only for that demographic in need of childcare, the availability of family to provide care is the most likely mechanism.

The results indicate a need for policy makers to consider intergenerational transfers when designing labour market policies. For example, policies designed to increase the retirement age may reduce the availability of grandmothers to provide childcare, and lower the labour force attachment of the middle generation. Moreover, the regional patterns in proximity suggest that national childcare and labour market policies may yield different outcomes across the country.

The paper proceeds as follows. The data are described in section two. In section three, we discuss the patterns and determinants of proximity in Canada, with special attention to differences across geographical regions of Canada. In section four we present regression results for the impact of proximity on women's labour force participation and usual hours worked. We argue that the confluence of results across samples is consistent with the availability of care hypothesis and discuss alternative explanations. Using region of birth and an indicator for whether a woman was born in the same province as one or both parents, we instrument proximity and estimate the effect using a bivariate probit model. The results from the IV regressions are similar. Section five concludes.

2. Data

Information on both proximity and labour force attachment is included in the 2007 Canadian General Social Survey, Cycle 21: Social Support and Aging (GSS-21). The target sample for this cycle includes all Canadians aged 45 and older, living in the ten provinces.³ We consider four sub-samples of the data. Sample A includes all married respondents aged 45-60. Sample B is the corresponding group of single, divorced and widowed respondents, also aged 45-60. Since the GSS-21 includes information on spouse's age, education, and labour force status we construct a sample of spouses, sample C, to consider the effect of mother-in-law proximity on labour supply. Finally, for Sample D, we identify the adult children of respondents aged 60 and over, and construct a dataset with the adult children as the unit of observation. We limit this sample to those adult children aged 25 and over, without siblings younger than 25. Since respondents are not asked about their children's attachment to the labour force, this final subsample is used only in estimating determinants of proximity and is not included in the labour force regressions.

Given the age restriction on the data, there are relatively few respondents with young children (18 percent), and those with young children are older and more educated than typical parents.⁴ Although a younger sample would be preferable to test the effect of childcare availability on labour force attachment, to the best of our knowledge, this is the only dataset in Canada that has information on family proximity as well as detailed information on the labour force behaviour of the respondent and their spouse.⁵ With the older sample, mothers are more likely to be out of the labour force and available to provide childcare but also more likely to have health concerns. To generalize the results to a younger cohort, we expect that any positive effect on labour force participation from close proximity (due to the availability of childcare) may underestimate the effect for all women; any negative effect on labour force participation from close proximity (due to the

³ The survey is conducted by telephone and the sample is selected through "Random Digit Dialling" (RDD). Therefore, households without telephones are not included in the sample (approximately 2% of the target population). Also, households with only cellular telephone service would not be included in the sample (5% of the Canadian population).

⁴ Throughout the paper, we define 'young' children as those under 15 years of age.

⁵ The Canadian Census provides mobility information of the respondent, but not proximity. The Survey of Labour and Income Dynamics provides information on the changing proximity of the original household, but not of extended family.

provision of elder care) may overestimate the effect for all women.

3. Proximity to Mother/Mother-in-law

In the GSS-21, proximity is coded in categories, rather than precise distances. If the respondent's mother is alive and not living in the same household as the respondent, she is asked whether her mother lives (a) in the same building; (b) in the same neighbourhood; (c) in the same surrounding area or city; (d) less than ½ day travel by car; or (e) more than ½ day travel by car.⁶ In table 1 we present the distribution of proximity to mothers for men and women in each of the four samples.⁷ The data indicate that co-residence is rare between married women and their mothers or mothers-in-law, but more common among unmarried individuals, especially among unmarried men.⁸ In contrast, close proximity is common for all samples. One-third of all married Canadians and 45-48% of unmarried Canadians reside in the same neighbourhood as their mother while more than half of all married Canadians and 60-64% of unmarried Canadians live in the same surrounding area as their mother.

Regional differences in proximity reflect three stylized facts about migration and immigration trends in Canada. First, internal migration patterns are broadly westward, as generations leave depressed areas in Atlantic Canada for opportunities in Ontario and the Western Provinces. Second, net migration out of Quebec is lower than the remaining provinces. Third, a large proportion of immigrants into Canada enter into the three largest cities, Montreal, Toronto and Vancouver. These stylized facts imply that (1) current residents in Atlantic Provinces and Quebec live closer to their mothers than residents of Ontario and the Western provinces, since the former are less likely to be migrants; (2) individuals born in Atlantic Canada are more likely to live far from their mothers than those born in the Western provinces, since they are more likely to have migrated away from their mothers; and (3) individuals born in Quebec are less likely to live far from their mothers than those born in other provinces, since they are less likely to

⁶ We collapse category (a) in with co-residents. There is no stipulation that mothers live in Canada. Presumably, mothers outside Canada will largely fall into category (e).

⁷ We do not have information on the marital status of children of respondents, hence Sample D includes both married and non-married adults.

⁸ Similarly high rates of co-residence between single men and their mothers is documented for the U.S. (Compton and Pollak, 2009). Hotz, McGarry and Wiemers (2008) show that many adults who co-reside with their elderly mothers have never left home.

have migrated out of province. These patterns are clearly reflected in the data, shown in Figure 1.⁹ The top panel shows proximity by current region. Over 40% of men and women living in Atlantic Canada, but only 20% of adults living in Alberta or British Columbia, live in the same neighbourhood as their mother. In contrast, 40% of adults residing in Alberta or British Columbia but only 16% of adults residing in Atlantic Canada live more than half a day away from their mothers.¹⁰ The second panel shows current proximity by region of birth. Individuals born in Quebec are most likely to reside in the same neighbourhood as their mothers, and less likely to live more than half a day away; individuals born in Atlantic Canada have a relatively high probability of living either in the same neighbourhood, or more than half a day away from their mothers, reflecting the long distance of migration. These patterns are repeated in the third panel, which shows the proximity of Sample D by current region of mother. Because proximity is strongly influenced by region of birth, we use this variable as an instrument for proximity in section four.

3.1.1 Regression Analysis of Proximity

In table 2 we present results from probit regressions on the probability of living away, here defined as outside the surrounding area of one's mother or mother-in-law, for samples A, B and C. Results are shown for the pooled sample as well as each subsample.¹¹ As expected, previous migration is a strong indicator of proximity to mother: compared to those who have resided in the same locale for more than 10 years, those with fewer years of location tenure are more likely to be living away from their mothers. After controlling for length of tenure in the locale, education is the sole indicator of proximity for men; for women, marital and immigration status also play a role. Higher education increases the probability that married men and women live away

⁹ The provinces in Atlantic Canada are Newfoundland, Nova Scotia, Prince Edward Island and New Brunswick. The Western provinces are split into two categories, Manitoba and Saskatchewan, and Alberta and British Columbia.

¹⁰ The figures change only slightly when immigrants are excluded from the sample.

¹¹ Controls were included for current region of residence and region of birth (Atlantic, Quebec, Manitoba/Saskatchewan and Alberta/B.C, Ontario omitted). The results for the regional variables are consistent with the patterns presented in figure 1. Also included in the regressions, but not presented for space constraints, are indicators for whether father is living, CMA status, age, age squared, household income, second (or higher order) marriage and visible minority status.

from their mother, although the education results are not statistically significant for unmarried men and women. For married couples, his education is a much stronger predictor of proximity than hers, reflecting male-dominated migration patterns (Compton and Pollak, 2007).

Immigrant women are more likely to live away from their mothers compared to non-immigrant women.¹² Married women whose mothers are immigrants are less likely to live away from their mothers than married women with Canadian born mothers. Similar patterns are not observed for men, likely reflecting cultural norms affecting first and second generation immigrants.

Marital status also affects the probability of close proximity between women and their mothers: compared to married women, never married women are more likely to live far from their mothers, while previously married women are less likely to live far. Marital status does not impact the proximity of men to their mothers. Finally, we find no evidence to suggest that fertility decisions are dependent on proximity for most samples: the presence of children does not impact the probability of close proximity for women and married men, only unmarried men with children are less likely to live away from their mothers.

In table 3 we present results from multinomial probit regressions on proximity for Sample D – the adult children of respondents.¹³ With this larger sample we are able to group proximity into three categories: those living in co-residence with their mother, those living ‘close’ – in the same neighbourhood or in the same surrounding area – and those living ‘away’. We do not have information on marital status, education, or labour force activity of the adult children in sample D. Rather, we focus on the impact of siblings and mothers characteristics on close proximity.

Our regression results are weakly consistent with Rainer and Siedler (2009) who posit that siblings seek to exploit a first-mover advantage to migrate away and free-ride on the elder care provided by remaining siblings. We find a sibling effect for both men and women: adults who are only children are less likely to live far away from their

¹² Recall that mothers alive in another country are still included in the proximity variables, most likely falling in the “more than ½ day away” category.

¹³ Controls are included (but not shown) for adult child’s age and age squared, mothers region of residence and CMA status, and an indicator for step/adopted children.

mothers compared to adults with siblings. However, unlike Konrad (2002), we do not find a clear birth order effect: birth order is highly insignificant for women and while eldest male children are less likely to live with their mothers, they no more likely to live far away.¹⁴ We are also able to exploit additional information on the location of siblings to further test the hypothesis of these papers. The strategic approach to proximity implies that only one sibling should remain in close proximity to their mother (the last mover). Our results show that adults are more likely to co-reside if there are siblings also co-residing and are more likely to live in the surrounding area if there are siblings in the surrounding area. In other words, siblings congregate either in close proximity to, or away from, their mother.

Mother's characteristics, particularly those indicators that suggest a higher need for elder care, influence co-residence. Both men and women are more likely to live with widowed mothers than mothers who are married; women are also more likely to live with separated or divorced mothers. Women are more likely to live with mothers who are in poor health; men are less likely to live with mothers who are in good health. These correlates suggest that co-residence decisions may be strongly influenced by the need for elder care. The impact of childcare needs is less clear with this sample. The GSS-21 survey asks whether a respondent (mother) has grandchildren, but we do not have information on which child the grandchildren belong. Therefore, although we find that women are more likely to live farther away from mothers who have no grandchildren, this does not indicate that women without children are more likely to live away.

Overall, the results from the proximity regressions suggest that region, education, sibling location and past migration are important determinants of proximity. There is strong evidence to suggest that co-residence is influenced by a mother's need for care, weaker evidence linking proximity and childcare needs. To the extent that individuals and couples migrate largely for economic reasons, as per the human capital model of migration, we would expect that in the long run, individuals who live away from their mothers would be more strongly attached to the labour force than those who

¹⁴ The different results may be explained by econometric modelling. Konrad et al. incorporate an ordered regression analysis and find a positive coefficient on eldest child. With a multinomial probit approach we find that the eldest child status affects the probability of living outside the mother's house, but not a higher likelihood of moving "away".

have never migrated. In the next section, we show that the opposite is true for women with children.

4. Proximity and Labour Force Attachment

In this section, we consider the impact of proximity to mothers or mothers-in-law on the labour force attachment of women.¹⁵ A brief look at the raw data is indicative of a relationship between proximity and labour force attachment. Table 4 shows the main activity of women (combining samples A, B and C) by proximity to mother or mother-in-law. Those with deceased mothers and those who live in the same household as their mothers are less likely to be in the labour force and more likely to be retired than those who live in separate households. These two groups are older, on average, than women in the other categories. Among women who live in separate households, those living farthest away are less likely to be in the labour force, and more likely to be caring for children than women who live closer to their mothers. Table 5 shows the usual hours of work in the past week, and the number of weeks worked in the past year. Each shows a slight U-shape pattern, with those living closest and furthest from their mothers working fewer hours and fewer weeks, although the variation is low.

To isolate the impact of proximity from other correlated factors, we estimate probit regressions on work force participation and Tobit regressions on usual hours of work in the past week. The results from the probit regression on the sample of women whose mothers are alive are shown in table six. The first three columns present key coefficients from regressions on the combined sample, the remaining columns show the results for the three sub-samples separately. For each regression a full set of controls are included.¹⁶

In column A1, we present the regression results for the full sample. We find a negative effect of co-residence, and a negative effect of living more than half a day away

¹⁵ This analysis excludes Sample D, since this sample contains no information on adult child's labour force behaviour.

¹⁶ Controls included in each regression include the daughters' age, age squared, current region of residence, CMA status, education, mother's education, whether her father is alive, immigrant status, visible minority status, other family income, number of children at home and presence of children under the age of 15 and the presence of children over the age of 15. For the full sample, we also include marital status. For sample A and C, controls are included for first marriage, spouse's main activity and spouse's education. For sample B, controls are included for marital status (single, never married, separated/divorced or widowed).

on the probability of working. The marginal effects are substantial. Women who co-reside with their mothers are 10 percentage points less likely to be employed than those who live in the same neighbourhood or surrounding area; women who live more than half a day away are 3.7 percentage points less likely to be employed.¹⁷

In the next two columns, we include interactions between proximity and young children (column A2) and proximity and older children (column A3). Our hypothesis is that the proximity effect is due to the availability of care. If so, the benefits of proximity should impact only women with young children. Interactions with older children allow us to determine the extent to which the effect is due to selection: if women who desire both a career and children are more likely to locate near their mothers, we should see positive effects of close proximity even after children are grown. The results from the full sample are indicative of a selection effect: the interaction between young children and living far is negative but insignificant; the interaction between older children and living far is negative and statistically significant.

In the remaining columns we present results for the three subgroups and show that the proximity effect is strongest for married women. Focussing on column B2, for married women we find a negative effect of co-residence on the probability of being employed. The negative effect of living more than half a day away is only found for married women with young children. The marginal effects are large: married women without children are 16 percentage points less likely to be working if they coreside with their mothers; married women with children are 11.5 percentage points less likely to be working if they live far from their mothers, compared to those who live in the same neighbourhood or surrounding area. The interaction with older children (column B3) shows no evidence of a selection effect: for married women the negative effect of living away only occurs for those with young children.

The results for unmarried respondent women (columns C1, C2 and C3) show results similar to the married sample, but the estimates are not statistically significant. This result may be due to the smaller sample, or to a less elastic labour supply of unmarried women, compared to married women. In the final three columns (D1, D2 and D3), we present the results for wives of respondents. We do not find evidence that

¹⁷ These estimates are similar to the

proximity to mother-in-law affects labour supply.

In table 7, we present results for Tobit regressions, with weekly usual hours of work as the dependent variable. We find a negative effect of coresidence for both married and non-married women without children and a negative effect of living more than $\frac{1}{2}$ day away for both married and non-married women with children. No selection effect is found. In fact, we find that married women with older children who live more than half a day away work more hours than those living in the same surrounding area. Again, we find no impact for proximity to mother-in-law.

The lack of a proximity effect to one's mother-in-law may be due to proximity categories. We only have information on proximity to mother only (for samples A and B) or to proximity to mother-in-law only (for sample C). Without knowing the location of both mother and mother-in-law, our base category may be too aggregated. For example, women who live more than half a day away from their mother-in-law may be living in the same neighbourhood as their own mother. This is also true in reverse - the women in Sample A who live more than half a day away from their own mothers may live near their mothers-in-law. Since we don't know the location of both mothers, we expect that all results underestimate the effect of living near *any* mother.¹⁸

Overall, these results indicate a substantial proximity effect that is dependent on marital status and the presence of children. By comparing the impact of proximity across different subgroups, we argue that the most likely mechanism is through the availability of childcare and eldercare. Alternative explanations including a selection effect, the tied mover hypothesis, or home town resources, are not consistent with the data. We address these in turn.

First, it is possible that the connection between proximity and labour market attachment that we observe is due to a selection effect. Young women who anticipate having children in the future may have less incentive to invest in the labour market. The availability of childcare will impact this decision, so that those living far from their mothers may be less likely to invest in labour market skills than those living nearby and those who wish to invest in labour market skills may choose to remain close to their

¹⁸ Compton and Pollak (2011) are able to define distance to both mother and mother-in-law in the U.S. data and find a clear effect of mother-in-law proximity.

mothers. Alternatively, women may have less incentive to invest in labour market experience if they anticipate having to provide elder care to mothers in the near future. Therefore those living close to their aging mothers may be less likely to invest in labour market skills than those living farther away. Since, in our full sample results, we find a negative effect of living far from one's mother for women with older children, we cannot definitively argue against a selection effect. However, this result is not replicated in the subsamples nor in the Tobit regressions.

Second, we argue that the tied mover hypothesis does not explain our results. The 'tied mover' effect, described by Mincer (1978), Lichter (1983) and Greenwood (1985), arises with couple migration. Under this theory, migration occurs when the sum of net expected benefits for each spouse is positive. This may result in one spouse migrating to a destination that is less than optimal for them as individuals. Empirically, this theory has been used to explain the reduced labour market attachment and lower wages of married women following migration, and the lower migration rates of dual earner couples compared to single earner couples. We provide three arguments outlining how our results differ from the predictions of the tied mover hypotheses. First, the tied mover hypothesis is applied to all married women, and is not tied to the presence of children. We find a proximity effect only for those married women with young children. Second, the negative effects of migration on the labour force attachment of married women have not been found to be long-term (e.g., Clark and Withers (2002), LeClere and McLaughlin (1997), Marr and Millerd (1988) Spitze (1984)). We include controls for the length of tenure in the current locale, up to ten years, far exceeding the estimated length of the tied mover effect. Finally, although we do not find a proximity effect for unmarried women on the intensive margin, we find a negative effect on the intensive margin for unmarried women with young children. These women are not subject to the tied mover effect.

A third alternative explanation for the connection between proximity and labour force attachment is that those living in close proximity to their mothers are more likely to reside in their home town, and have access to other home-town resources that influence their labour market decisions. General resources that impact the likelihood of employment (e.g. job contacts) should affect all individuals in their hometown – men and

women, married and unmarried, with and without children. Since the positive effects of proximity are isolated to only women with young children, these types of resources are unlikely to be driving the results. More specific resources demand further attention. We have argued that the effect of proximity is through the availability of one's mother to provide childcare, however it is possible that other childcare resources may also be more prevalent in one's hometown (e.g. contacts within market childcare facilities or the availability of other family members and friends). In table 8, we replicate the regressions from table 6, expanding the sample to include women with deceased mothers. For this group, we define proximity as proximity to their father.¹⁹ We add a third interaction term to test whether the proximity effect depends on the presence of mother. The results show that, for married women with children, the negative effect of living more than half a day away is found only when mother is alive. The average marginal effect is comparable to our previous results, at 12.9 percentage points. As with previous results, the coefficients for unmarried women and for respondent wives are not statistically significant.

Finally, although the exogeneity of geographic proximity to one's mother and labour force attachment is not a primary concern - a number of recent studies estimate the impact of child care on labour force participation using proximity as an instrumental variable for child care transfers (c.f. Dimova and Wolff (2008), Dimova and Wolff (forthcoming), Zamarro (2009)) – it is possible that proximity and labour force attachment are jointly influenced by fertility, human capital investment and the marriage market. We address this potential endogeneity by estimating the following bivariate probit model:

$$Y_{1i}^* = X_i\beta + Y_{2i}^*\phi_2 + U_{1i} \quad (1)$$

$$Y_{2i}^* = X_i\beta + Z_i\gamma_2 + U_{2i} \quad (2)$$

$$Y_{ki} = 1 \text{ if } Y_{ki}^* > 0 \\ Y_{ki} = 0 \text{ if } Y_{ki}^* \leq 0, k = 1, 2$$

where Y_{1i} is an observed dichotomous variable equal to 1 if the woman works positive

¹⁹ Those with both mother and father deceased are omitted. The proximity measure will be in error if the woman's mother and father were not married to each other prior to her mother's death and her father lived in a different location, or if her father moved after the death of her mother.

hours, (i.e., if the latent variable $Y_{1i}^* > 0$); Y_{2i} is an observed dichotomous variable equal to 1 if the daughter lives far away from her mother or mother-in-law (i.e., if the latent variable $Y_{2i}^* > 0$).²⁰ The binary proximity variable is necessary for two reasons: first, the instruments are not suited for estimating co-residence and second, there is no econometric procedure allowing for a multinomial endogenous regressor. The vector X includes exogenous control variables common to both regressions (see footnote 16 for the full list of control variables). The vector Z includes the instruments for proximity (region of birth and an indicator for whether the woman was born in the same province as either or both parents). We present results from the bivariate probit regressions in table 9. The instruments are shown to be acceptable predictors of proximity the sample of married respondents and the sample of wives of respondents, but are weak instruments for the unmarried sample. We therefore cannot interpret the results for the unmarried sample. For the two remaining samples, the results are consistent with the previous regressions: the effect of proximity is observed only for married women with children. Note however, that the value of ρ (the correlation of the residuals between the two equations) is not significantly different from zero, suggesting that proximity may be estimated as an exogenous variable.

Overall, the results are consistent with the hypothesis that close proximity to one's mother has a positive effect on the labour force attachment of women with children, while co-residence with one's mother has a negative effect on the labour force attachment of women without children. In comparing the results across subsamples, we have shown that other potential explanations for the connection between proximity and labour force attachment do not fully explain the results. The coresidence results should be read with caution, as this relationship is more likely to be endogenous and we are unable to test for this.

5. Conclusions

In this paper, we examine the determinants of family proximity in Canada, and

²⁰ Immigrants and women with deceased mothers are excluded from the sample. In the results shown, co-residents are included in the base group. The results do not change if they are excluded. We estimated the same regressions on an expanded definition of 'far away', which included all those who lived outside the surrounding area. Results were similar.

the effect of proximity on the labour force participation and working hours of Canadian women. Transfers of elder care and childcare between mothers and daughters are strongly influenced by proximity, yet proximity to family has remained an understudied topic in Canadian labour economics. We use data from Cycle 21 of the Canadian General Social Survey, which is the only nationally representative dataset that includes questions on proximity and labour supply. Within Canada, there are strong geographic differences in proximity, with the likelihood of living close to ones mother declining from East to West. Proximity is also strongly linked to education, especially education of husbands, which is consistent with migration patterns. For women, marital status and immigrant status also influence proximity. Co-residence is more likely to occur when mothers' characteristics indicate a higher need for care: mothers are unmarried and in poor health. While we do find a sibling effect in proximity (adults who are only children live farther away from their mothers than adults with siblings) we do not find a birth order effect.

Next, we estimate the effect of proximity on the labour supply and hours of work for women. Two opposing influences are noted: transfers of grandchild care may increase the labour force participation of women; transfers of eldercare may decrease the labour force participation of women.

Regression results are consistent with both a negative effect of co-residence, and a positive effect of close proximity on women's labour supply. More specifically, we find that women without children who co-reside with their mothers are less likely to work and work fewer hours than those who live in close proximity to their mothers. Since co-residence is more likely when mothers are in need of care, the decision to co-reside is likely based on both care needs and labour force attachment. We are unable to control for endogeneity for the coresidence decision. Women who live close to their mothers, but not with them, appear to benefit from the presence of their mothers. Married women with children are less likely to work and work fewer hours those who live far from their mothers. Proximity affects unmarried women only on the intensive margin: unmarried women with children living far from their mothers work fewer hours than those living in the same surrounding area.

We hypothesize that the mechanism linking proximity and labour force attachment is the availability of child care, and the need to provide elder care. We argue

that since the proximity effect is found consistently only for married women with young children, alternative explanations are less convincing. An instrumental variables regression, using region of birth and an indicator for whether a woman was born in the same province as either or both parents as instruments for proximity, yields consistent results.

The findings help to further disentangle the many influences on women's labour supply. Economists have moved from an individual-based model of labour supply to a couple-based model, but still our models estimate labour supply for men much more precisely than labour supply of women. This work provides one further explanation – that the labour supply model for women is not only couple-based but to some degree intergenerational, and that to better explain labour supply we need to consider not only whether women have children but also whether women have mothers in close proximity. To the extent that the availability of mothers to provide childcare impacts the labour supply of women, policies aimed at one generation may have unanticipated effects for the next. Moreover, regional differences in proximity suggest that women who may be constrained in the labour market due to the lack of family child care are more likely in the Western regions of Canada.

Bibliography

Belan, Pascal and Pierre-Jean Messe and Francois-Charles Wolff, "Postponing Retirement Age and Labor Force Participation: The Role of Family Transfers." Manuscript. March 2007.

Bloom, David E. and Todd P. Steen, "The Labor Force Implications of Expanding the Child Care Industry." *Population Research and Policy Review*, Vol. 9, (1990) 25-44.

Clark, R and Douglas A. Wolf, "Proximity of Children and Elderly Migration," in *Elderly Migration and Population Redistribution*, ed. A. Rogers. London: Belhaven. Pp. 77-96.

Compton, Janice and Robert A. Pollak, "Why Are Power Couples Increasingly Concentrated in Large Metropolitan Areas?" *Journal of Labor Economics*, Vol. 25, No. 3, (July 2007), 475-512.

Compton, Janice and Robert A. Pollak, "Proximity and Coresidence of Adult Children and their Parents: Description and Correlates," University of Michigan Retirement Research Center, Working Paper 2009-215, October 2009.

Compton, Janice and Robert A. Pollak, "Family Proximity, Childcare and Women's Labor Force Attachment." Manuscript, 2011.

Dimova, Ralitzka and François-Charles Wolff, "Do Downward Private Transfers Enhance Maternal Labor Supply? Evidence from Around Europe," Forthcoming, *Journal of Population Economics*.

Dimova, Ralitzka and François-Charles Wolff, "Grandchild Care Transfers by Ageing Immigrants in France: Intra-household Allocation and Labour Market Implications," *European Journal of Population*, Vol. 24, No. 3, (September, 2008), 315-340.

Fast, Janet, Norah Keating, Pam Otfinowski, and Linda Derksen, "Characteristics of Family/Friend Care Networks of Frail Seniors." *Canadian Journal of Aging*, Vol. 23, Issue 1 (Spring 2004) 5-19.

Fuller-Thomson, Esme "Grandparents Raising Grandchildren in Canada: A Profile of Skipped Generation Families." SEDAP Research Paper No. 132. October 2005.

Glaser, Karen and Cecilia Tomassini, "Proximity of Older Women to Their Children: A Comparison of Britain and Italy," *The Gerontologist*, Vol. 40, No. 6, (December 2000), 729-737.

Guzman, Lina "The Use of Grandparents as Child Care Providers" Center for Demography and Ecology, University of Wisconsin-Madison, NSFH Working Paper No. 84. 1999.

Kohli, Martin, Harald Kunemund and Jorg Ludicke, "Family Structure, Proximity and Contact. Chapter 4.1 of the SHARE First Results Book. January, 2005.

Konrad, Kai, Harald Kunemund, Kjell Erik Lommerud, and Julio R. Robledo, "Geography of the Family," *American Economic Review*, Vol. 92, No. 4, (September 2002), 981-998.

Lei, Ziaoyan Shirley, "Grandchild Care, Financial Transfers and Grandma's Labor Market Decisions." Manuscript. UCLA (November, 2006)

Lin, Ge and Peter A. Rogerson, "Elderly Parents and the Geographic Availability of their Adult Children," *Research on Aging*, Vol. 17, No. 3, (September 1995), 303-331.

Presser, Harriet B. "Some Economic Complexities of Child Care Provided by Grandmothers." *Journal of Marriage and the Family*, Vol. 51, No. 3 (August 1989), 581-591.

Rainer, Helmut and Thomas Siedler, "O Brother, Where Art Thou? The Effects of Having a Sibling on Geographic Mobility and Labor Market Outcomes." IZA Discussion Paper No. 1842. (November 2005), forthcoming, *Economica*.

Rogerson, Peter A., Richard H. Weng, and Ge Lin, "The Spatial Separation of Parents and their Adult Children." *Annals of the Association of American Geographers*, Vol. 83, No. 4, (December 1993), 656-671.

Rogerson, Peter A., Jeffrey A. Burr and Ge Lin, "Changes in geographic Proximity between Parents and their Adult Children." *International Journal of Population Geography*, Vol. 3, no. 2, (June, 1997), 121-136.

Shelton, Nicola and Emily Grundy, "Proximity of Adult Children to their Parents in Great Britain," *International Journal of Population Geography*, Vol. 6, No. 3, (June 2000), 181-195.

Silverstein, Merrill, "Stability and Change in Temporal Distance between the Elderly and Their Children." *Demography*, Vol. 32, No. 1 (February 1995), 29-45.

Usdansky, Margaret L. and Douglas A. Wolf, "When Child Care Breaks Down: Mothers' Experiences With Child Care Problems and Resulting Missed Work." *Journal of Family Issues*, Vol, 19 (May 2008) 1185-1210.

Wolf, Douglas A. and Beth J. Soldo, "Married Women's Allocation of Time to Employment and Care of Elderly Parents." *The Journal of Human Resources*, Vol. 29, No. 4. Special Issue: The Family and Intergenerational Relations (Autumn 1994), 1259-1276.

Figure 1

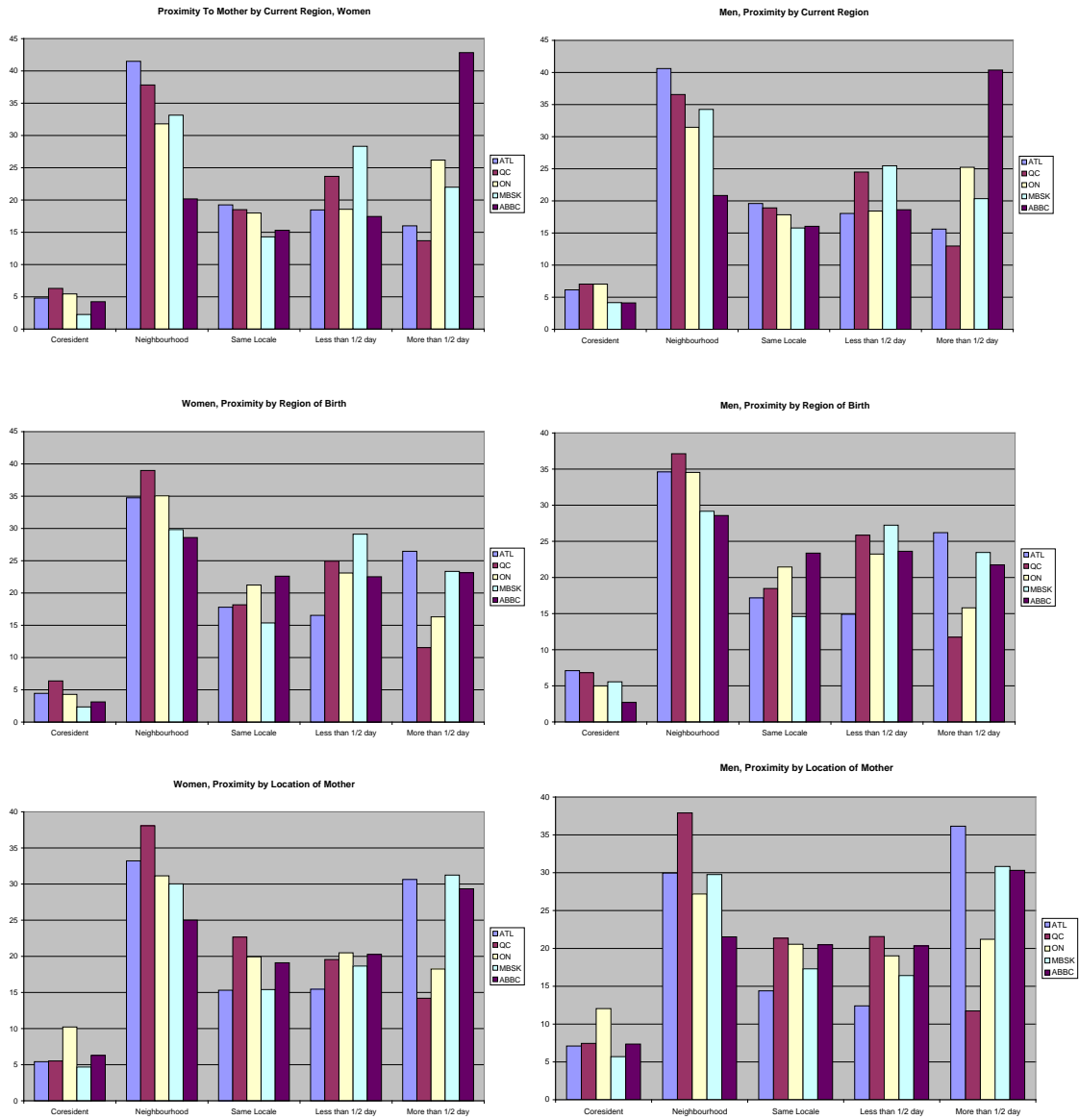


Table 1: Proximity by Sample

WOMEN									
	Sample A:		Sample B:		Sample C:		Sample D:		
	Married, Respondent		Not Married, Respondent		Married, Wives of Respondents		Children of Respondents		
Sample Size	2368		1316		2652		8443		
	%	Cum %	%	Cum %	%	Cum %	%	Cum %	
Proximity to Mother/MIL									
Co-Residing	2.5		15.1		3.0		7.28		
Same Neighbourhood	30.8	33.3	30.0	45.1	33.2	36.2	31.69	39.0	
In Surrounding Area	19.3	52.6	15.7	60.9	16.0	52.2	19.66	58.6	
Less than 1/2 day	20.6	73.2	17.6	78.5	20.4	72.5	19.59	78.2	
More than 1/2 day	26.8	100.0	21.5	100.0	27.5	100.0	21.78	100.0	
MEN									
	Sample A:		Sample B:		Sample C:		Sample D:		
	Married, Respondent		Not Married, Respondent		Married, Husbands of Respondents		Children of Respondents		
Sample Size	2340		777		1956		8673		
	%	Cum %	%	Cum %	%	Cum %	%	Cum %	
Proximity to Mother/MIL									
Co-Residing	2.9		24.3		4.4		8.97		
Same Neighbourhood	33.4	36.4	24.6	48.8	29.3	33.7	29.16	38.1	
In Surrounding Area	16.5	52.8	14.9	63.7	19.9	53.7	19.94	58.1	
Less than 1/2 day	20.0	72.9	20.6	84.3	20.5	74.2	19.13	77.2	
More than 1/2 day	27.1	100.0	15.7	100.0	25.8	100.0	22.8	100.0	

**Table 2: Probit Regression, Probability of Living Away
Women, Samples A, B and C, Excludes Co-residents**

	Women				Men			
	Full Sample	Sample A Married Respondents	Sample B Non-married Respondents	Sample C Spouses of Respondents	Full Sample	Sample A Married Respondents	Sample B Non-married Respondents	Sample C Spouses of Respondents
Adult child is immigrant	0.507*** (0.093) 0.198	0.597** (0.257) 0.231	1.046*** (0.333) 0.384	0.114 (0.197) 0.045	0.305** (0.136) 0.121	0.153 (0.213) 0.061	0.481 (0.501) 0.190	0.433** (0.179) 0.171
Mother/MIL is immigrant	-0.220* (0.122) -0.087	-0.421** (0.214) -0.166	-0.329 (0.367) -0.129	-0.078 (0.172) -0.031	-0.152 (0.142) -0.060	-0.085 (0.196) -0.034	0.021 (0.435) 0.008	-0.317* (0.167) -0.125
<i>Omitted: Has been in locale more than 10 years</i>								
Has been in locale less than one year	0.802*** (0.160) 0.293	1.002*** (0.372) 0.346	0.191 (0.518) 0.076	1.234*** (0.350) 0.394	1.061*** (0.254) 0.365	1.239*** (0.342) 0.398	0.014 (0.628) 0.006	1.025*** (0.349) 0.357
Has been in locale one to three years	0.634*** (0.134) 0.240	0.626*** (0.230) 0.237	0.534 (0.371) 0.208	0.832*** (0.293) 0.300	0.784*** (0.120) 0.290	0.853*** (0.237) 0.308	1.035*** (0.392) 0.371	0.767*** (0.223) 0.285
Has been in locale three to five years	0.851*** (0.156) 0.309	0.790*** (0.297) 0.289	0.847*** (0.274) 0.313	0.841*** (0.243) 0.304	0.724*** (0.139) 0.271	0.878*** (0.257) 0.316	-0.044 (0.447) -0.018	0.947*** (0.268) 0.338
Has been in locale five to ten years	0.471*** (0.070) 0.184	0.399** (0.159) 0.156	0.450** (0.195) 0.177	0.623*** (0.153) 0.237	0.530*** (0.080) 0.206	0.656*** (0.158) 0.250	0.488 (0.406) 0.192	0.451*** (0.161) 0.177
<i>Omitted: Sample A (Married Respondents)</i>								
Sample C (spouses)	0.004 (0.068) 0.001				0.071 (0.059) 0.028			
Sample B: never married	0.206* (0.108) 0.082				-0.112 (0.142) -0.045			
Sample B : separated, divorced, widowed	-0.133* (0.070) -0.053		-0.443*** (0.160) -0.175		0.026 (0.103) 0.010		-0.099 (0.299) -0.039	
<i>Omitted: High School Graduate</i>								
Bachelor's degree or higher	0.282*** (0.064)		0.235 (0.193)		0.464*** (0.064)		0.401 (0.302)	

	0.112		0.094		0.183		0.159	
	0.172**		0.067		0.236***		0.120	
Diploma/certificate	(0.071)		(0.185)		(0.077)		(0.262)	
	0.069		0.027		0.094		0.048	
	0.188**		0.236		0.005		0.497	
Some post-secondary	(0.087)		(0.213)		(0.090)		(0.399)	
	0.075		0.094		0.002		0.195	
	-0.076		0.006		-0.067		0.183	
Less than high school	(0.098)		(0.253)		(0.083)		(0.368)	
	-0.030		0.002		-0.027		0.073	
<i>Omitted: Neither has bachelors degree</i>								
		0.388***		0.582***	0.636***		0.393***	
Power couple: both have bachelors degree		(0.115)		(0.127)	(0.112)		(0.124)	
		0.153		0.225	0.246		0.155	
		0.161		0.106	0.120		0.124	
Half-power: only wife has a bachelors degree		(0.172)		(0.167)	(0.168)		(0.155)	
		0.064		0.042	0.048		0.050	
		0.464***		0.447***	0.446***		0.396***	
Half-power: only husband has a bachelors degree		(0.127)		(0.112)	(0.119)		(0.154)	
		0.181		0.174	0.175		0.156	
	-0.169**	-0.212	-0.042	-0.327*	-0.194*	-0.272**	0.088	-0.143
Mother/MIL has a university degree	(0.078)	(0.147)	(0.272)	(0.169)	(0.101)	(0.138)	(0.383)	(0.173)
	-0.067	-0.084	-0.017	-0.129	-0.077	-0.107	0.035	-0.057
<i>Omitted: No children</i>								
	0.124	-0.015	0.278	0.161	0.098	0.124	0.732**	0.083
Children less than 15 years	(0.090)	(0.194)	(0.198)	(0.186)	(0.085)	(0.170)	(0.301)	(0.153)
	0.049	-0.006	0.110	0.064	0.039	0.049	0.282	0.033
	0.062	-0.136	0.217	0.124	0.002	0.152	-0.023	-0.044
Children 15 years or older only	(0.076)	(0.167)	(0.172)	(0.207)	(0.076)	(0.164)	(0.275)	(0.156)
	0.025	-0.054	0.086	0.049	0.001	0.061	-0.009	-0.018
Observations	2,983	1,110	588	1,115	2,475	1,068	316	937
Pseudo R2	0.0881	0.0949	0.113	0.124	0.0975	0.134	0.140	0.0973
ll	-1884	-696.3	-360.4	-677.0	-1547	-640.9	-187.6	-585.6
chi2	1050	149.0	140.2	416.2	768.6	504.8	404.6	163.4

Coefficients presented, average marginal effects in italics. Bootstrapped standard errors in parentheses. Included in the regression but not presented are controls for region of residence, CMA status, whether father is living, age, age squared, household income, second (or higher order) marriage and visible minority status.

*** p<0.01, ** p<0.05, * p<0.1

Table 3: Multinomial Probit: Proximity of Children of Respondents to their Mother
Sample: Children aged 25 and Over

	MEN			WOMEN		
	Co-residence	Within the Same Locale	Farther	Co-residence	Within the Same Locale	Farther
Only child	0.037 (0.096) <i>0.019</i>	<i>0.074</i>	-0.314*** (0.109) <i>-0.092</i>	0.069 (0.136) <i>0.023</i>	<i>0.098</i>	-0.421*** (0.100) <i>-0.121</i>
Eldest child	-0.157** (0.063) <i>-0.011</i>	<i>0.023</i>	-0.061 (0.046) <i>-0.011</i>	-0.122 (0.094) <i>-0.009</i>	<i>0.011</i>	-0.023 (0.049) <i>-0.002</i>
Siblings living at home	0.258*** (0.061) <i>0.023</i>	<i>-0.017</i>	0.019 (0.056) <i>-0.006</i>	0.338*** (0.063) <i>0.028</i>	<i>-0.002</i>	-0.048 (0.062) <i>-0.027</i>
Siblings in surrounding area	-0.156*** (0.021) <i>-0.001</i>	<i>0.084</i>	-0.308*** (0.023) <i>-0.083</i>	-0.157*** (0.025) <i>-0.003</i>	<i>0.073</i>	-0.261*** (0.033) <i>-0.070</i>
Mother Widowed	0.308*** (0.090) <i>0.031</i>	<i>-0.018</i>	0.009 (0.056) <i>-0.013</i>	0.492*** (0.078) <i>0.045</i>	<i>-0.024</i>	0.001 (0.066) <i>-0.021</i>
Mother Not Married	-0.091 (0.091) <i>-0.017</i>	<i>-0.049</i>	0.209*** (0.054) <i>0.065</i>	0.167* (0.087) <i>0.005</i>	<i>-0.060</i>	0.211*** (0.059) <i>0.055</i>
Mother Works in paid market	-0.100 (0.086) <i>-0.003</i>	<i>0.042</i>	-0.149** (0.058) <i>-0.039</i>	0.057 (0.080) <i>0.008</i>	<i>0.017</i>	-0.078 (0.048) <i>-0.025</i>
Mother Less than HS	0.013 (0.087) <i>0.008</i>	<i>0.034</i>	-0.142** (0.068) <i>-0.042</i>	0.016 (0.084) <i>0.007</i>	<i>0.040</i>	-0.160** (0.074) <i>-0.047</i>
Mother More than HS	-0.092 (0.081) <i>-0.011</i>	<i>-0.009</i>	0.055 (0.074) <i>0.020</i>	0.015 (0.099) <i>-0.002</i>	<i>-0.023</i>	0.090 (0.062) <i>0.026</i>
Mother BA or more	0.067 (0.091) <i>-0.005</i>	<i>-0.063</i>	0.239*** (0.074) <i>0.067</i>	-0.203* (0.104) <i>-0.024</i>	<i>-0.076</i>	0.319*** (0.083) <i>0.100</i>
Mother Poor Health	0.161 (0.120) <i>0.010</i>	<i>-0.037</i>	0.117 (0.103) <i>0.027</i>	0.293*** (0.097) <i>0.032</i>	<i>0.007</i>	-0.090 (0.099) <i>-0.039</i>
Mother Good Health	-0.191*** (0.064) <i>-0.021</i>	<i>-0.010</i>	0.077 (0.052) <i>0.031</i>	-0.092 (0.080) <i>-0.009</i>	<i>-0.009</i>	0.051 (0.048) <i>0.018</i>
Mother no grandchildren	0.570*** (0.088) <i>0.069</i>	<i>-0.034</i>	-0.007 (0.092) <i>-0.035</i>	0.739*** (0.096) <i>0.060</i>	<i>-0.118</i>	0.327*** (0.074) <i>0.058</i>

	MEN			WOMEN		
	Co-residence	Within the Same Locale	Farther	Co-residence	Within the Same Locale	Farther
Received parents help with Post-Secondary Education	0.016 (0.071) <i>-0.008</i>	<i>-0.051</i>	0.203*** (0.042) <i>0.059</i>	-0.191*** (0.072) <i>-0.017</i>	<i>-0.008</i>	0.062 (0.047) <i>0.025</i>
Received parents help buying a property	-0.490*** (0.085) <i>-0.025</i>	<i>0.125</i>	-0.414*** (0.063) <i>-0.100</i>	-0.290*** (0.110) <i>-0.013</i>	<i>0.077</i>	-0.259*** (0.067) <i>-0.064</i>
Received parents help buying a vehicle	-0.017 (0.063) <i>0.002</i>	<i>0.023</i>	-0.088* (0.051) <i>-0.025</i>	-0.040 (0.080) <i>0.003</i>	<i>0.041</i>	-0.155** (0.061) <i>-0.043</i>
Number of Observations	8363			8195		
Log Likelihood	-6012			-6620		

Coefficients presented, average marginal effects in italics. Standard errors are bootstrapped and clustered on family. Included in the regression but not presented are controls for adult child's age and age squared, mothers region of residence and CMA status, and an indicator for step/adopted children.

*** p<0.01, ** p<0.05, * p<0.1

Table 4: Main Activity by Proximity, Three respondent samples (A, B, C) Combined

	Proximity to Mother/Mother in Law					
	Mother Deceased	Co-Residing	Neighbourhood	Surrounding Area	Less than 1/2 day	More than 1/2 day
Main Activity						
In Labour Force	67.8	69.6	75.1	75.5	79.7	72.3
Caring for Children	3.4	4.2	5.0	4.2	2.9	7.6
Housework	12.6	7.7	10.9	9.4	8.6	9.7
Retired/Illness	14.8	14.5	7.9	8.7	7.8	8.6
School/Other	1.4	4.0	1.1	2.2	1.1	1.8
Sample	2,921	139	1,188	651	763	980
Percent of Full Sample	44.0	2.1	17.9	9.8	11.5	14.8

Table 5: Hours/Weeks of Work By Proximity, All Three Samples Combined

	Proximity to Mother/Mother in Law					
	Mother Deceased	Co-Residing	Neighbourhood	Surrounding Area	Less than 1/2 day	More than 1/2 day
Usual Hours	36.1 (12.7) 2001	38.1 (9.8) 87	36.4 (10.9) 929	36.9 (11.4) 503	37.8 (12.0) 616	36.7 (12.4) 740
Usual Hours (incl. 0)	25.8 (19.5) 2801	26.5 (19.3) 130	29.2 (17.5) 1155	29.5 (17.9) 622	31.7 (17.7) 742	28.4 (18.8) 954
Weeks Last Year	47.1 (11.3) 2088	49.3 (9.2) 95	47.7 (10.6) 951	46.4 (12.2) 531	48.2 (9.5) 629	47.0 (11.9) 759
Weeks Last Year (incl 0)	34.1 (23.1) 2888	35.1 (23.6) 138	38.3 (21.2) 1177	37.6 (21.3) 650	40.5 (19.6) 755	36.6 (22.2) 973
Worked Last Year	0.73 (0.45) 2924	0.72 (0.45) 139	0.81 (0.40) 1190	0.81 (0.39) 651	0.84 (0.36) 763	0.78 (0.41) 983

Table 6: Probit Regressions, Probability of Work

	Full Sample			Married Respondents			Non-Married Respondents			Wives of Respondents		
	(A1)	(A2)	(A3)	(B1)	(B2)	(B3)	(C1)	(C2)	(C3)	(D1)	(D2)	(D3)
Co-Reside	-0.408** (0.178) <i>-0.105</i>	-0.414*** (0.152) <i>-0.105</i>	-0.234 (0.240) <i>-0.106</i>	-0.665*** (0.253) <i>-0.173</i>	-0.735*** (0.192) <i>-0.157</i>	0.254 (2.049) <i>-0.131</i>	-0.335 (0.231) <i>-0.080</i>	-0.436 (0.313) <i>-0.077</i>	-0.210 (0.348) <i>-0.095</i>	-0.183 (0.347) <i>-0.047</i>	0.013 (0.757) <i>-0.069</i>	-0.560 (2.035) <i>-0.073</i>
Less than ½ Day Away	0.034 (0.077) <i>0.007</i>	-0.012 (0.089) <i>0.007</i>	0.211 (0.139) <i>0.007</i>	0.116 (0.138) <i>0.023</i>	0.091 (0.120) <i>0.022</i>	0.179 (0.280) <i>0.010</i>	0.063 (0.205) <i>0.013</i>	-0.032 (0.209) <i>0.010</i>	0.195 (0.337) <i>0.013</i>	0.096 (0.155) <i>0.022</i>	0.089 (0.172) <i>0.022</i>	0.253 (0.206) <i>0.022</i>
More than ½ Day Away	-0.156** (0.075) <i>-0.037</i>	-0.112 (0.085) <i>-0.036</i>	-0.167 (0.118) <i>-0.036</i>	-0.070 (0.097) <i>-0.015</i>	0.022 (0.147) <i>-0.016</i>	-0.294 (0.208) <i>-0.021</i>	-0.011 (0.209) <i>-0.002</i>	0.044 (0.249) <i>-0.004</i>	-0.112 (0.267) <i>-0.001</i>	-0.160 (0.123) <i>-0.040</i>	-0.141 (0.136) <i>-0.041</i>	-0.064 (0.168) <i>-0.041</i>
Young Children (less than 15)	-0.413*** (0.109) <i>-0.102</i>	-0.395** (0.156) <i>-0.014</i>	-0.409*** (0.094) <i>-0.101</i>	-0.316 (0.238) <i>-0.072</i>	-0.190 (0.274) <i>0.028</i>	-0.258 (0.205) <i>-0.060</i>	-0.661** (0.309) <i>-0.166</i>	-0.731** (0.362) <i>-0.020</i>	-0.639** (0.271) <i>-0.159</i>	-0.342* (0.184) <i>-0.087</i>	-0.314 (0.209) <i>-0.071</i>	-0.348* (0.202) <i>-0.088</i>
Older Children (15 and up)	-0.065 (0.087) <i>-0.015</i>	-0.062 (0.109) <i>-0.099</i>	-0.009 (0.108) <i>-0.143</i>	0.114 (0.200) <i>0.025</i>	0.129 (0.204) <i>-0.063</i>	-0.258 (0.205) <i>0.024</i>	-0.092 (0.233) <i>-0.019</i>	-0.096 (0.242) <i>-0.155</i>	-0.047 (0.275) <i>-0.017</i>	-0.293 (0.183) <i>-0.070</i>	-0.295* (0.178) <i>-0.088</i>	-0.216 (0.226) <i>-0.070</i>
Young Children X Co-reside		0.034 (0.405) <i>-0.115</i>			0.777* (0.459) <i>0.009</i>			0.846 (0.565) <i>0.113</i>			-0.742 (1.062) <i>-0.242</i>	
Young Children X Less than ½ day away		0.199 (0.184) <i>0.048</i>			0.093 (0.376) <i>0.040</i>			0.575 (0.505) <i>0.144</i>			0.025 (0.246) <i>0.030</i>	
Young Children X More than ½ day away		-0.163 (0.157) <i>-0.081</i>			-0.455* (0.269) <i>-0.115</i>			-0.327 (0.541) <i>-0.090</i>			-0.060 (0.251) <i>0.059</i>	
Older Children X Co-reside			-0.269 (0.283) <i>-0.135</i>			-1.011 (2.027) <i>-0.020</i>			-0.281 (0.426) <i>-0.126</i>			0.523 (2.156) <i>-0.009</i>
Older Children X Less than ½ day away			0.000 (0.000) <i>-0.012</i>			-0.182 (0.323) <i>-0.001</i>			-0.204 (0.363) <i>-0.002</i>			-0.242 (0.235) <i>0.003</i>
Older Children X More than ½ day away			-0.262* (0.145) <i>-0.034</i>			0.296 (0.254) <i>0.0001</i>			0.174 (0.412) <i>0.013</i>			-0.155 (0.214) <i>-0.062</i>
Observations	3,130	3,130	3,130	1,163	1,163	1,260	658	658	658	1,225	1,225	1,225
Pseudo R-Squared	0.122	0.124	0.124	0.202	0.206	0.172	0.173	0.179	0.175	0.0666	0.0679	0.0685

Coefficients presented, with bootstrapped standard errors in parentheses and average marginal effects in italics. (*** p<0.01, ** p<0.05, * p<0.1) Includes those women whose mothers (or mothers-in-live) are alive. Full controls are included for each regression. The control variables are: Region (Atlantic, Quebec, Prairie, AB/BC), indicator for CMA status, Number of years residing in current locality, age, age squared, whether older children are in the household, indicator for poor health, other household income, visible minority, immigrant, indicator for whether mother has a college degree, indicator for father living, education (for married samples: power, half-power him, half-power her; for full and not married sample: BA or more, more than HS, diploma/certificate, less than HS). For married samples, indicators are included for husband's main activity (retired, long term illness), and whether first marriage. For the not married and full samples, indicators are included for marital status.

Table 7: Tobit Regressions, Usual Hours of Work

	Full Sample			Married Respondents			Non-Married Respondents			Wives of Respondents		
	(A1)	(A2)	(A3)	(B1)	(B2)	(B3)	(C1)	(C2)	(C3)	(D1)	(D2)	(D3)
Co-Reside	-6.726*** (1.227)	-6.209*** (1.650)	-6.735*** (1.384)	-8.967** (3.991)	-10.063** (4.661)	-1.973 (7.271)	-6.807** (3.338)	-8.405* (4.445)	-3.339 (4.097)	1.862 (4.964)	4.154 (5.640)	-3.777 (10.969)
Less than ½ Day Away	-5.651*** (2.136)	-6.102** (2.720)	-3.344 (3.699)	2.015 (1.629)	1.609 (1.725)	2.487 (3.091)	0.008 (2.340)	-1.198 (2.263)	2.416 (2.764)	2.377 (1.516)	2.034 (1.829)	4.794** (2.302)
More than ½ Day Away	1.023 (0.976)	0.355 (1.194)	3.275** (1.347)	0.366 (1.475)	1.977 (1.675)	-4.521 (2.970)	-0.827 (2.295)	0.476 (1.994)	-3.049 (2.964)	-2.854 (1.747)	-2.869 (1.919)	-0.706 (1.955)
Young Children (less than 15)	-2.016* (1.215)	-1.011 (1.002)	-2.776** (1.263)	-5.000 (3.434)	-2.839 (2.986)	-3.634 (2.428)	-8.762** (3.464)	-8.494*** (3.044)	-8.637*** (3.258)	-7.175*** (1.986)	-7.261*** (2.396)	-7.266*** (1.822)
Older Children (15 and up)	-0.920 (1.158)	-0.875 (1.144)	-0.366 (1.577)	1.515 (2.340)	1.750 (1.867)	0.760 (2.544)	-2.765 (2.645)	-2.909 (2.160)	-1.920 (3.590)	-4.237** (2.149)	-4.241** (1.833)	-2.549 (1.865)
Young Children X Co-reside		3.035 (6.639)			10.602 (21.295)			11.425 (9.706)			-9.701 (15.192)	
Young Children X Less than ½ day away		2.667 (2.514)			1.570 (3.417)			6.584 (5.584)			1.037 (2.970)	
Young Children X More than ½ day away		-4.020* (2.188)			-8.717** (3.564)			-11.464** (5.291)			0.007 (2.692)	
Older Children X Co-reside			-3.819 (4.816)			-7.826 (8.453)			-8.966 (6.437)			7.619 (12.011)
Older Children X Less than ½ day away			-3.567** (1.629)			-1.320 (3.677)			-4.159 (3.921)			-4.118 (3.038)
Older Children X More than ½ day away			1.284 (1.717)			7.097** (3.168)			3.866 (3.557)			-3.708 (2.580)
Observations	3,036	3,036	3,036	1,108	1,108	1,200	631	631	631	1,216	1,216	1,216
Pseudo R-Squared	0.0178	0.0181	0.0180	0.0331	0.0341	0.0273	0.0244	0.0263	0.0254	0.0102	0.0104	0.0106

Coefficients presented, with bootstrapped standard errors in parentheses (*** p<0.01, ** p<0.05, * p<0.1) Includes only those women whose mothers (or mothers-in-live) are alive. Full controls are included for each regression. The control variables are: Region (Atlantic, Quebec, Prairie, AB/BC), indicator for CMA status, Number of years residing in current locality, age, age squared, whether older children are in the household, indicator for poor health, other household income, visible minority, immigrant, indicator for whether mother has a college degree, indicator for father living, education (for married samples: power, half-power him, half-power her; for full and not married sample: BA or more, more than HS, diploma/certificate, less than HS). For married samples, indicators are included for husband's main activity (retired, long term illness), and whether first marriage. For the not married and full samples, indicators are included for marital status.

Table 8: Probit Regressions, Probability of Work Interactions with Mother Alive

	Full Sample	Married Women (Sample A)	Unmarried Women (Sample B)	Wives of Respondents (Sample C)
Young Children	-0.248 (0.325)	-0.692 (1.027)	3.973*** (0.531)	-0.392 (0.407)
Older Children	-0.076 (0.094)	0.058 (0.195)	-0.050 (0.164)	-0.271* (0.161)
More than ½ day away	0.016 (0.215)	-0.041 (0.317)	0.319 (1.222)	0.005 (0.402)
Mother Alive	0.144 (0.106)	0.304 (0.194)	0.281 (0.244)	-0.050 (0.186)
Mother Alive * More than ½ Day Away	-0.124 (0.220)	0.026 (0.355)	-0.285 (1.174)	-0.146 (0.359)
Young Children * Mother Alive	-0.103 (0.302)	0.504 (1.039)	-4.513*** (0.575)	0.098 (0.311)
Young Children * More than ½ Day Away	3.189* (1.925)	4.833*** (1.244)	-0.019 (1.415)	0.004 (1.501)
Mother Alive * Young Children * More than ½ Day Away	-1.076 (1.554)	-5.306*** (1.258)	-0.440 (1.537)	-0.074 (1.526)
Observations	3533	1308	742	1389
Pseudo R-Squared	0.126	0.210	0.176	0.069
Average Marginal Effects				
Live More than ½ Day Away				
Mother Alive X Young Children	-0.095***	-0.129*	-0.132	-0.061
Mother Alive X No Young Children	-0.023	-0.003	0.006	-0.032
Mother Deceased X Young Children	0.178	0.446	0.000	0.003
Mother Deceased X No Young Children	0.004	-0.010	0.066	0.001

Coefficients presented, with bootstrapped standard errors in parentheses. (*** p<0.01, ** p<0.05, * p<0.1) Includes all women. Full controls are included for each regression. The control variables are: Region (Atlantic, Quebec, Prairie, AB/BC), indicator for CMA status, Number of years residing in current locality, age, age squared, whether older children are in the household, indicator for poor health, other household income, visible minority, immigrant, indicator for whether mother has a college degree, indicator for father living, education (for married samples: power, half-power him, half-power her; for full and not married sample: BA or more, more than HS, diploma/certificate, less than HS), and coresidence status. For married samples, indicators are included for husband's main activity (retired, long term illness), and whether first marriage. For the not married and full samples, indicators are included for marital status.

**Table 9: Biprobit Regressions, Probability of Work
Estimating “Live away”**

DepVar: Working	Full Sample			Married Women			Non-Married Women			Wives of Respondents		
	(A1)	(A2)	(A3)	(B1)	(B2)	(B3)	(C1)	(C2)	(C3)	(D1)	(D2)	(D3)
More than ½ Day Away (Endog)	-0.102 (0.406)	-0.078 (0.414)	-0.132 (0.421)	0.219 (0.566)	0.357 (0.528)	-0.021 (0.541)	-2.082* (1.130)	-2.100** (1.059)	-2.057** (1.014)	-0.712 (0.699)	-0.779 (0.668)	-0.565 (0.859)
Young Children (less than 15)	-0.372*** (0.135)	-0.357** (0.147)	-0.372*** (0.135)	-0.302* (0.168)	-0.187 (0.201)	-0.337** (0.161)	-0.511 (0.457)	-0.566 (0.445)	-0.511 (0.432)	-0.300 (0.381)	-0.350 (0.404)	-0.308 (0.405)
Older Children (15 and up)	-0.072 (0.099)	-0.071 (0.099)	-0.084 (0.099)	0.168 (0.265)	0.184 (0.265)	0.034 (0.365)	-0.203 (0.127)	-0.202 (0.127)	-0.191 (0.177)	-0.250 (0.374)	-0.247 (0.371)	-0.215 (0.355)
Young Children X More than ½ day away(Endog)		-0.075 (0.207)			-0.476* (0.284)			0.236 (1.901)			0.239 (0.406)	
Older Children X More than ½ day away(Endog)			0.060 (0.150)			0.502 (0.484)			-0.047 (0.497)			-0.198 (0.402)
DepVar: More than ½ Day Away												
Born in same province as at least one parent	-0.148** (0.069)	-0.148** (0.069)	-0.148** (0.069)	-0.011 (0.300)	-0.010 (0.300)	-0.012 (0.299)	-0.333*** (0.109)	-0.343*** (0.105)	-0.341** (0.144)	-0.182 (0.121)	-0.182 (0.124)	-0.182 (0.125)
Born in Atlantic Canada	-0.009 (0.143)	-0.009 (0.143)	-0.009 (0.143)	-0.303 (0.327)	-0.297 (0.322)	-0.290 (0.322)	0.134 (0.438)	0.138 (0.439)	0.133 (0.458)	0.323 (0.268)	0.324 (0.273)	0.323 (0.276)
Born in Quebec	0.349* (0.187)	0.349* (0.187)	0.349* (0.187)	0.415 (0.769)	0.413 (0.768)	0.413 (0.766)	-0.190 (0.671)	-0.172 (0.658)	-0.195 (0.502)	0.644** (0.327)	0.644** (0.326)	0.645** (0.325)
Born in MB, SK	-0.543*** (0.151)	-0.543*** (0.151)	-0.543*** (0.151)	-0.840** (0.341)	-0.838** (0.341)	-0.833** (0.338)	-0.079 (0.381)	-0.066 (0.363)	-0.082 (0.211)	-0.377 (0.257)	-0.375 (0.256)	-0.377 (0.254)
Born in AB, BC	-0.809*** (0.161)	-0.809*** (0.161)	-0.808*** (0.161)	-1.045** (0.483)	-1.046** (0.482)	-1.044** (0.482)	-0.289 (0.586)	-0.295 (0.567)	-0.300 (0.356)	-0.701*** (0.271)	-0.701*** (0.270)	-0.701*** (0.268)
Observations	2,530			922			533			896		
Log Likelihood	-2111.87	-2111.79	-2111.79	-755.51	-743.59	-743.05	-420.61	-420.04	-420.12	-763.59	-763.20	-763.31
LR Test Rho=0												
Chi1(1)	0.006	0.009	0.0059	0.248	0.373	0.501	8.441	8.914	8.748	1.768	1.833	1.769
Prob>chi2	0.941	0.925	0.925	0.619	0.547	0.479	0.004	0.003	0.003	0.184	0.176	0.184
F-Test (Instruments=0)												
Chi2 (5)	31.45	31.47	31.47	17.74	22.60	16.99	5.95	3.93	5.41	19.21	14.01	15.94
Prob>chi2	0.000	0.000	0.000	0.003	0.000	0.005	0.311	0.687	0.492	0.004	0.029	0.014

Coefficients presented, with bootstrapped standard errors in parentheses and average marginal effects in italics. (*** p<0.01, ** p<0.05, * p<0.1) Includes those women whose mothers (or mothers-in-live) are alive. Full controls are included for each regression. The control variables are: Region (Atlantic, Quebec, Prairie, AB/BC), indicator for CMA status, Number of years residing in current locality, age, age squared, whether older children are in the household, indicator for poor health, other household income, visible minority, immigrant, indicator for whether mother has a college degree, indicator for father living, education (for married samples: power, half-power him, half-power her; for full and not married sample: BA or more, more than HS, diploma/certificate, less than HS). For married samples, indicators are included for husband's main activity (retired, long term illness), and whether first marriage. For the not married and full samples, indicators are included for marital status.

