2009

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Introduction

In this chapter, we address the question: What are the consequences of mobility among Aboriginal peoples? It has been widely recognized that the Aboriginal population is, on average, more mobile than the non-Aboriginal population (Norris, Cooke, & Clatworthy 2003). While research has documented many of the antecedents to and reasons for frequent moves in this population, little work has examined the social consequences. Here, we theorize that frequent moves between communities break the bonds that enable people to access social capital, which, in turn, undermine community social cohesion. One consequence of this process is hypothesized to be lower levels of educational attainment.

While the process of "churn" migration is believed to affect a wide range of outcomes, we have chosen to examine educational attainment, since it is a foundational component of socio-economic status. There is also widespread support within the Aboriginal community for improving educational outcomes as a way of improving individual and community conditions (RCAP 1996).

Literature Review

Educational Attainment

In general, national data on educational attainment among Aboriginal peoples in Canada suggest that there have been improvements, but, as Hull notes in this volume, relative gaps remain. Aboriginal people tend to be overrepresented in the less than high school category and underrepresented in the high school diploma, college or university certificate or diploma, and university degree categories (Mendelson 2004). According to 1996 data, Aboriginal young adults were 2.6 times less likely to have completed high school compared to non-Aboriginals, and were 50% less likely to have completed post-secondary (Tait 1999). As has been widely noted, Aboriginal women have slightly higher levels of educational attainment. In addition, Aboriginal lone mothers were more likely than mothers in two-parent families to attend school (Tait 1999).

It appears that there are barriers to education that are unique to or more prevalent among Aboriginal peoples. The 2001 Census shows that young adults from every ethnic minority group had higher rates of high school completion compared to Aboriginals (Beavon & Guimond 2006). Potential explanations include negative attitudes toward education as a result of the residential school legacy, fewer perceived returns on education, a lack of economy within or near community, a disconnect between traditional culture and pedagogical approach, geographical isolation from higher education institutions, and discrimination or alienation within the school system (Maxim & White 2006, R.A. Malatest & Associates Ltd. 2004, Richardson & Blanchet-Cohen 2000, Spence & White forthcoming, White, Spence, & Maxim 2006). Rates of school non-completion are highest among the Inuit, followed by Registered Indians, non-Status Indians, and the Métis (Beavon & Guimond, 2006). Tait (1999) noted that the Métis are less likely to live in remote communities or the North, and have had formal education and greater connection to mainstream institutions, historically. Opportunities for higher education and employment are often limited in Inuit and First Nations communities, which mean that people have to leave their communities, social supports, and way of life behind in order to attend post-secondary institutions.

Research has shown that there are significant benefits to higher education for Aboriginal peoples. Hull (2005) found that, among all Aboriginal groups, labour force participation increases and government transfer dependence decreases with education. Gaps in labour force participation among Aborigional persons compared to non-Aboriginals were very small at the same educational level. There also appears to be threshold effects with the likelihood of unemployment decreasing significantly at the secondary graduate, post-secondary certificate and university degree levels (Hull 2005, Tait 1999). Walters, White, and Maxim (2004) found that, controlling for socio-demographic characteristics, level of schooling, and field of study, Aboriginal post-secondary graduates earn more than non-minorities and visible minorities. The advantage was particularly pronounced at the university degree level.

Mobility Patterns

While there is a persistent myth of a mass exodus from reserves to urban centres, the migration pattern of Aboriginal peoples is more aptly characterized as "churn" into and out of cities and within cities (Norris & Clatworthy 2003). Registered Indians with ties to reserves tend to move back and forth between their First Nations communities and urban centres (Norris & Clatworthy 2003). Between 1991 and 1996, the largest percentage of individuals who left reserves, moved to urban centres (61%) while the majority moving to reserves came from cities (69%) (Norris, Beavon, Guimond, & Cooke 2004). The off-reserve population is even more highly mobile. Among those in large cities, at least half of all moves were within the same community (Norris & Clatworthy 2003). Mobility patterns have been linked to age with young adults having the highest rates (Norris & Clat-

worthy 2003). Major reasons for migration include family, housing, education, employment, and community factors (Beavon & Norris 1999, Distasio, Sylvester, Jaccubucci, Mulligan, & Sargent 2004, Norris & Clatworthy 2003). While we often think of the on- and off-reserve populations as being completely distinct, they are often connected through mobility, as well as culture and politics (Graham & Peters 2002).

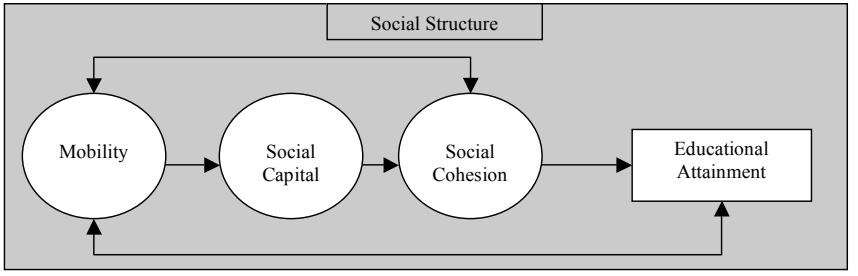
Social Capital and Social Cohesion

Social capital "can be defined as the networks of social relations within the milieu, characterized by specific norms and attitudes that *potentially* enable individuals or groups to access a pool of resources and supports" (White & Maxim 2003, 67). Coleman (1988) argued that social capital is "a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions of actors—whether persons or corporate actors—within the structure" (S98). Social capital is produced through changes in *relations* among individuals that facilitate certain actions (Coleman 1988). Individuals can use the resources and supports available through social networks to achieve their own goals. In addition, there are also effects that improve conditions in the community and may enhance the well-being of residents who are comparatively isolated. Communities with high levels of social capital have dense webs of personal connections, established rules of conduct, and generalized reciprocity all of which build trust (Putnam 2000). The literature has generally suggested that social capital is a source of: 1) social control; 2) family support; and 3) access to resources in networks outside the family (Portes 1998). While most theoretical and empirical work on social capital has emphasized positive dimensions, it also has negative ones, including "exclusion of outsiders, excess claims on group members, restrictions on individual freedoms, and downward levelling norms" (Portes 1998, 15).

Social cohesion can be considered a framing concept since there is no consensus about its precise definition (Beauvais & Jenson 2002). It can be thought of as "the capacity of community members to live in harmony" (Policy Research Initiative Project 2005, 8). The literature discusses four different aspects of social cohesion: 1) common values and civic culture, 2) social order and social control, 3) social solidarity and low levels of inequality, 4) social networks and social capital, and 5) belonging and identity (Beauvais & Jenson 2002). Community ties have been identified as a key determinant of social cohesion particularly when defined as social networks, capital, or solidarity (Beauvais & Jenson 2002).

Social capital and social cohesion are interrelated concepts. For example, Beauvais and Jenson (2002) argued, "higher levels of social cohesion raise the return to social-capital investment" (26). However, the distinction between the two concepts is that "*social capital* comprises individual actions like joining an organization or doing volunteer work. *Social cohesion* is a characteristic of a group

Figure 9.1: Conceptual Model



of people, determined by their propensity to invest in social capital" (Beauvais & Jenson 2002, 26).

Conceptual Model

The conceptual model used here draws upon theoretical work by White and Maxim (2003) and Beavon and Norris (1999). White and Maxim's (2003) model proposed that there are reciprocal relationships among human, physical, and social capital within communities. In turn, social capital affects social cohesion, which affects population outcomes. "If levels of migration are high, either measured as net migration or in terms of the rate of 'churn,' the probability of forming associations, clubs, parent-teacher groups, sports clubs, and so on is diminished. Any community civic life would be negatively affected" (White & Maxim 2003, 7). Beavon and Norris (1999) theorized that high levels of mobility, which are influenced by demographic, political, and legal factors along with push and pull dynamics between community of origin and destination, undermined community social cohesion, which contributed to a higher incidence of social problems that further fuelled churn migration. The authors theorized that churn migration patterns were related to a range of economic and social outcomes. The model used here borrows from this latter part of the model by proposing links between social capital, social cohesion, and educational attainment (See **Figure 9.1**). The social structure provides the context in which these patterns occur, which is why we include controls for gender, community ties, family structure, labour force participation, and economic family income. While any degree of mobility has the potential to break bonds of social capital, moves that occur between communities are most likely to disrupt social networks both spatially and temporally (Beavon & Norris 1999). Data limitations prevent us from examining "within community" moves; however, we are able to capture the "between community" moves that are more likely to be detrimental to social capital networks.

There is some research on non-Aboriginal populations that support parts of this model. For example, Prubesh and Downey (1999) used two waves of data on high school students from the national Education Longitudinal Survey to examine the relationship between residential and school moves and academic performance.

They found that school-only, residential-only, and combined school and residential moves were associated with declines in social capital and academic performance. Importantly, most of the difference in effect between movers and non-movers was due to difference in the groups predating the move. The authors concluded that the family types that tend to move more often also experience other forms of social and economic disadvantage.

Aman (2006) examined educational outcomes among different cohorts of Aboriginal students in British Columbia. She found that student mobility was associated with level levels of school completion. Part of the explanation appears to be that where there is more than one school in the centre, mobile Aboriginal students tend to cluster in schools in communities with poorer economic and social conditions. However, she also found that "higher proportions of Aboriginal students *(notwithstanding* these higher proportions may be more likely to occur in schools in where poor socio-economic conditions prevail) are linked to increases in Aboriginal graduation *and* Band graduation at the school level" (93). This finding suggests that bonding on the basis of ethnicity may buffer against the effects of negative socio-economic conditions.

Method

The data for these analyses come from the 2001 Aboriginal Peoples Survey (APS) Public Use Microdata File (PUMF) of adults (aged 15 and over) off-reserve (i.e., excluding individuals living in First Nations communities or reserves).[1] The APS is a post-censal survey that targets individuals who reported Aboriginal ancestry, identity, or Indian Band, Indian Treaty, or Registered Indian status in the Census (APS 2006).

Respondents in the 15 to 19 (N=4,279) and 20 to 24 (N=3,351) age groups were selected. We theorized that these two age groups represented key periods during which frequent moves would have the greatest impact on the likelihood of dropping out, completing high school, and pursuing post-secondary education. We analyzed the groups separately since the 20 to 24 year olds were old enough to have completed high school, while most members of the younger group were not.

We generated a dependent variable that classified respondents according to whether they had graduated from high school—with diploma or General Educational Development (GED) diploma—and whether they were currently attending a secondary or post-secondary program. Those who indicated on their highest level of educational attainment that they had completed some post-secondary, a certificate or diploma program, or a university degree, were coded in the post-secondary group even if they were not currently enrolled. Four categories were created: 1) dropouts (had not completed high school and were not currently attending); 2) non-graduates (had not completed high school, but were currently attending); 3) graduates (had graduated high school, but had not pursued post-

secondary); and 4) post-secondary (had graduated high school and pursued post-secondary).

Independent variables included frequency of moves, which was divided into five ordered categories based on two variables in the APS that identified whether respondents had ever moved and how many times they had moved in the past five years, excluding moves within the same city, town, or community. It is important to note that this variable misses movement within municipalities and neighbourhoods. However, we are still able to capture those moves that are most likely to disrupt social capital networks. Given that respondents in the APS PUMF were living off-reserve at the time of the survey, we would expect the data to underestimate the within community mobility characteristic of the off-reserve population, but to capture the churn migration typical of the on-reserve population. The reference category included those who had moved three or more times in the past five years compared to those who had never moved, as well as those who had moved zero, one, or two times in the past five years.

Sex was dummy coded with males as the reference category. We created a variable to capture community ties. Those who reported North American Indian as part of their identity and were members of an Indian Band or First Nation were coded as having strong ties to reserve. Those who reported being Inuit, or non-Inuit living in the Arctic, were coded as having ties to the Arctic. All others were coded as having stronger ties to off-reserve communities since they are not eligible for housing on-reserve and do not live in the Arctic. Dummy variables were created with reserve ties as the reference category.

The family structure variable in our model is based on Statistics Canada's census family status, which includes married or common-law couples with or without children and lone-parents whose children live in the same dwelling. Grandparents living with grandchildren are considered census families if the children's parent(s) do not live in the household. Children who are married, common-law, or have children are not considered to be part of their parents' census family even if they share the same dwelling. Non-census families include people living alone, with other relatives, or non-relatives. We created three categories: 1) child living with parents or grandparents; 2) common-law, married, or lone-parent; and 3) non-census family. Ideally, we would have liked to use variables that provide a broader view of household structure. For example, the challenges facing lone parents living on their own are likely greater than their counterparts who continue living with their family of origin, enabling them to pool resources such as money and social support. Unfortunately, the variables necessary to discern living arrangement were not available in the dataset.

Labour force participation was coded according to whether a respondent was employed, unemployed, or not in the labour force (not working for pay or looking for employment). Income used the economic family income variable, which sums all of the income for family members (related by blood, marriage, common-law, or adoption) in the same household. We felt that this variable more accurately

captures the actual level of differential resources available to the family. There were seven categories ranging from less than $10,000 per year to 80,000 plus.

The proposed model conceptualizes that social capital gives rise to social cohesion. There are no variables that adequately capture social capital in the APS PUMF. We used social support as a proxy measure of social capital since support is one resource that may be accessed from networks (Policy Research Initiative Project 2005). The limitation of this approach to measuring social capital is that it primarily taps into bonding social capital as opposed to linking or bridging. It also misses potential negative consequences of social capital, such as involvement in gangs or other groups that engage in illegal or socially deviant behaviours. Respondents were asked to rate how frequently various forms of social support were available to them on a four-point Likert scale ranging from all of the time to almost none of the time. Variables were reverse coded so high scores reflect high levels of social support. We coded variables into three dimensions of social support: 1) social interaction, which combined variables measuring how often respondents have someone with whom to do something enjoyable, relaxing, or to have a good time); 2) emotional support, which combined variables related to having someone to listen, confide in, or count on for advice; and 3) affectionate support, which was based on a variable measuring the availability of love and affection. The subscales were given equal weighting and combined. The scale was adjusted so it ranged from 0 to 27. Cronbach's Alpha was 0.84. We also found limited measures of cohesion in the APS PUMF. Our measure of cohesion was based on a series of questions that asked respondents to respond yes or no whether suicide, family violence, sexual abuse, drug abuse, or alcohol abuse were a problem in their community. Responses were coded so that "no" was given a value of 0 and "yes" was given a 1. Responses were summed and the scale reversed so high scores reflect higher cohesion. Cronbach's Alpha was 0.85.

Data were analyzed using multinomial logistic regression models in Stata. Only cases with complete data on the model variables were included. In the 15–19 age group, there were 3,491 complete cases (18.4% missing); while in the 20–24 age group, there were 2,761 complete cases (17.6% missing). Multiple imputation was performed using Amelia II to address the missing data. The analyses presented here use non-imputed results since the parameters did not differ substantively. All data are weighted using the survey weights provided by Statistics Canada.

Results

Descriptives

Figure 9.2 shows the weighted percent of cases in each mobility category. Those who have never moved make up the largest proportion of respondents in both age groups; however, the older group is more likely to have moved in the past five years compared to the younger group. In particular, the older group is twice as

Figure 9.2: Mobility by Age Group

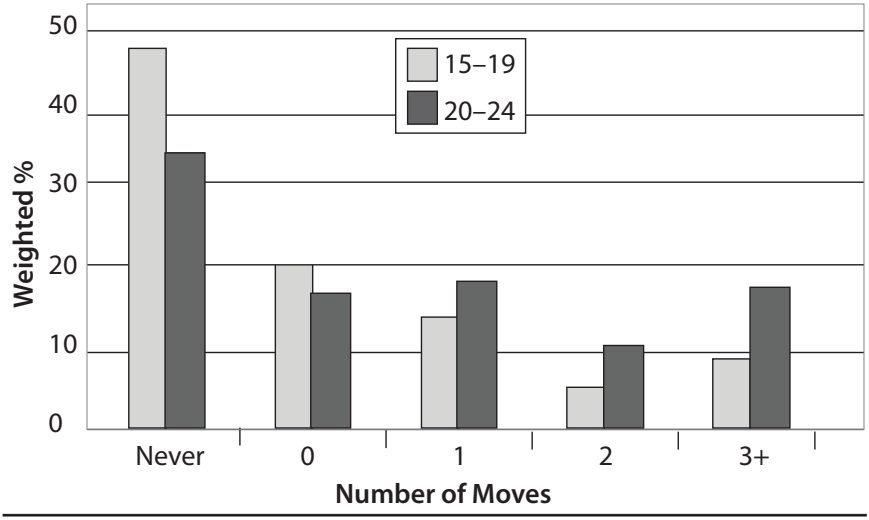
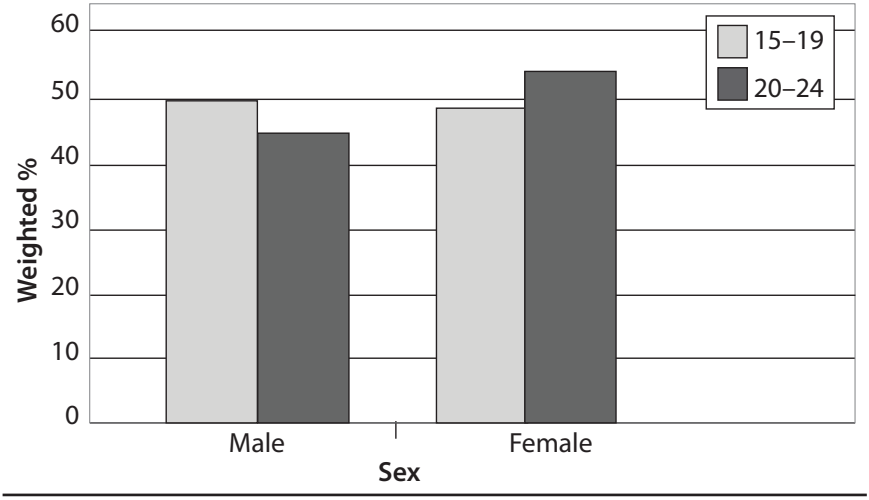


Figure 9.3: Sex by Age Group



likely to have moved three or more times in the past five years compared to the younger group.

The sex distribution by age is presented in **Figure 9.3**. The distribution is very near 50/50 for the younger group, but females are overrepresented in the older group, perhaps reflecting the tendency of females to move more frequently and from on- to off-reserve (Norris, Beavon, Guimond, & Cooke 2004, Norris & Clatworthy 2003). Research has found that Aboriginal women tend to move in a family context while men tend to move as lone persons for economic reasons (Peters 1994). Women often leave their home communities in search of better

Figure 9.4: Community Ties by Age Group

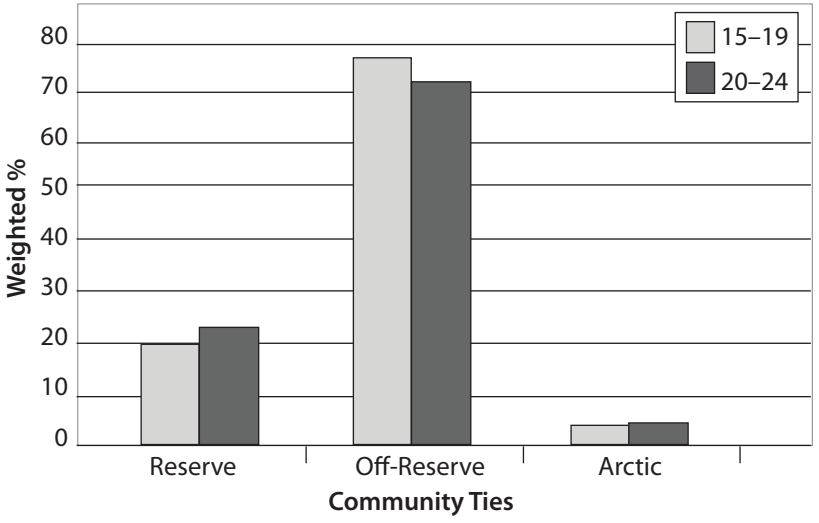
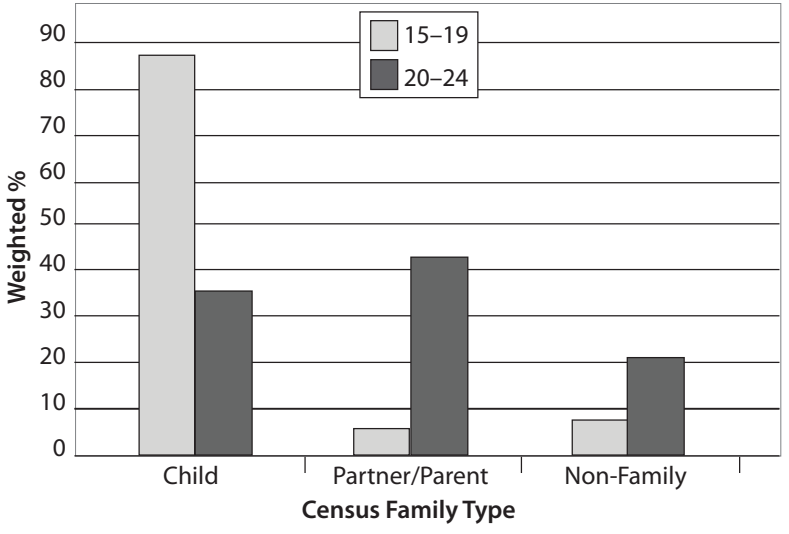


Figure 9.5: Family Structure by Age Group



housing, services, or employment; to escape abusive situations; or following the breakdown of a marital or common-law relationship (Cooke & Belanger 2006, Norris, Beavon, Guimond, & Cooke 2004, Peters 1994).

Figure 9.4 clearly shows that almost three-quarters of respondents in each age group have stronger off-reserve ties, which is not surprising given that the PUMF was limited to adults living off-reserve. The slightly higher proportion of members from the older group with on-reserve ties may reflect greater mobility

Figure 9.6: Labour Force Participation by Age Group

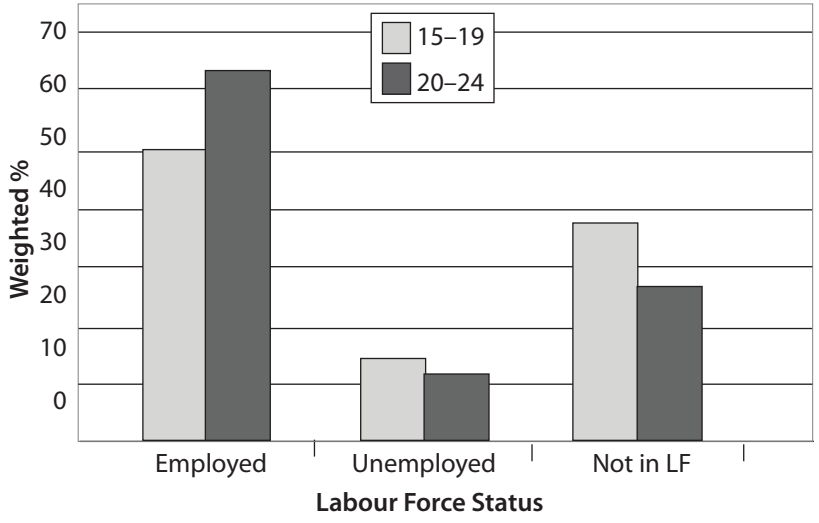
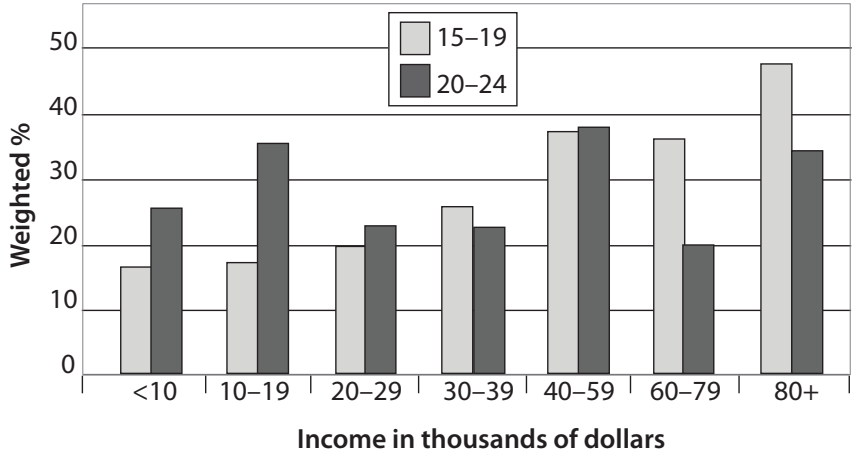


Figure 9.7: Economic Family Income by Age Group



in this age group. We would expect that some young adults from First Nations communities choose to leave during this life stage in order to pursue education or work opportunities off-reserve.

Age differences in family structure are readily apparent in **Figure 9.5**. The vast majority in the younger age group are children living with parents or grandparents compared to just over a third in the older group. Close to half of the older group were living with a partner or were a parent compared to less the 6% of the younger group. Similarly, one-fifth of respondents in the older group had a non-census family arrangement compared to one-thirteenth of the younger group.

Figure 9.8: Social Support by Age Group

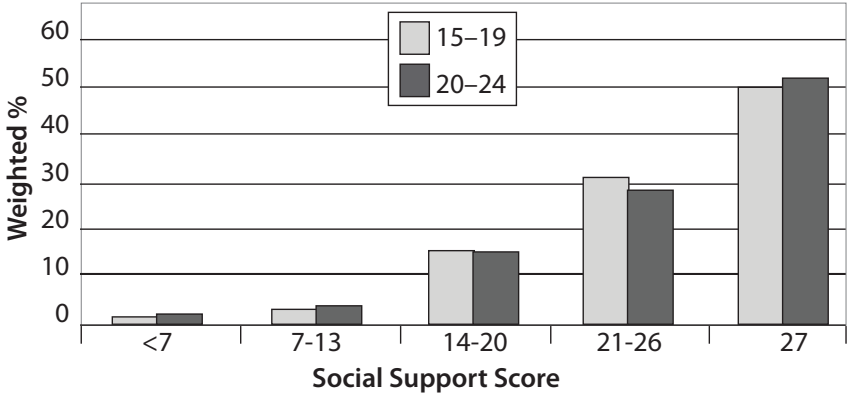
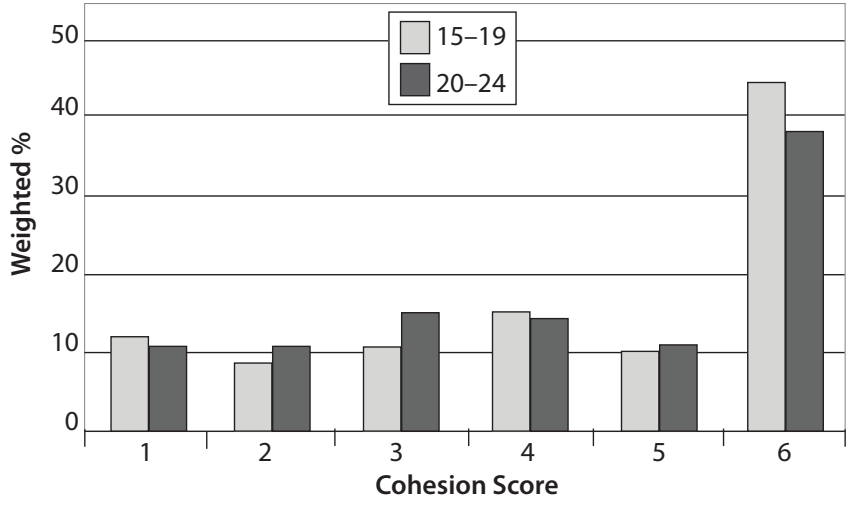


Figure 9.9: Community Cohesion by Age Group



When we look at indicators of socio-economic status, it is evident that being employed is the most common status, with the older group having a higher rate (63.1%) than the younger (49.6%) (**Figure 9.6**). Among the younger and older group, respectively, 13.5% and 11.1% were unemployed. The unemployment rate was 21.4% for the younger group and 15% for the older group, which is substantially higher than the Canadian youth unemployment rate in April 2001 of 12.7% (Statistics Canada 2001). Those in the younger group were more likely to not be in the labour force (36.9%) compared to those in the older group (25.8%).

Results for economic family income (**Figure 9.7**) demonstrate that the younger group tend to have higher levels of income because they are more likely live with parents. The older group is overrepresented in the lowest income categories. It is

notable that at least half of respondents reported household incomes of $40,000 or more.

Approximately half of the young adults in the sample reported the highest level of social support (**Figure 9.8**). Less than 1% indicated a score of less than 7. Fewer than 5% fell into the 7 to 13 score range. Approximately 15% and 30% were in the 14 to 20 and 21 to 26 score range respectively. There were no appreciable differences in support levels between the two age groups. The majority of respondents indicated relatively high levels of social support.

We see a similar pattern for community cohesion, with the largest number of respondents indicating very high levels of cohesion (**Figure 9.9**). Nevertheless, approximately 11% of the sample indicated that they lived in communities with all six social problems, which corresponds to a cohesion score of 1. There was no clear pattern by age group, suggesting that the higher mobility in the older group did not have a strong effect on perceptions of social cohesion.

The dependent variable, school attendance, shows a clear age pattern (**Figure 9.10**). The percentage of dropouts (DO) is roughly equal (about 16%) between the two groups. In the younger group, we see—as expected—over half are non-graduates (NG), indicating they have not graduated but are still attending school. This rate drops to 3.7% in the older group, representing a small number of individuals who were held back at some point or left for a period of time and then returned, which other studies have found to be a common pattern among Aboriginal peoples (Hull, 2005). In the younger group, almost 16% had graduated high school (G), compared to a slightly higher number in the older group (21%). When we look at rates of post-secondary (PS) attendance, the difference is dramatic, with only 16% of the younger group attending compared to 59% in the older group. In the younger group, 82% of those in the post-secondary category indicated "some post-secondary" as their highest level of educational attainment and 18% had attained a certificate or diploma (results not shown). As expected, given their young age, none had earned a university degree. Among the older group, 61% indicated "some post-secondary," while 31% had attained a certificate or diploma, and 8% had earned a university degree.

Multivariate Analyses

The results of the multinomial logistic regression models for the 15–19 and 20–24 age groups are presented in **Figures 9.11 to 9.26**. The factor change scale indicates the odds ratio (expß) while the logit coefficient scale represents the raw coefficient (ß). Letters are used to indicate each category of the dependent variable: D for dropout, N for non-graduate, G for graduate, and P for post-secondary. The dropout category is set as the reference. Outcomes to the right of another letter indicate higher odds while those to the left correspond to lower odds. The distance between a pair of outcomes indicates the magnitude of the effect. The lines connecting outcomes indicate that the odds are *not* significantly different between the pair. Significance was set at the 0.1 level. The area of the outcome

Figure 9.10: School Attendance by Age Group

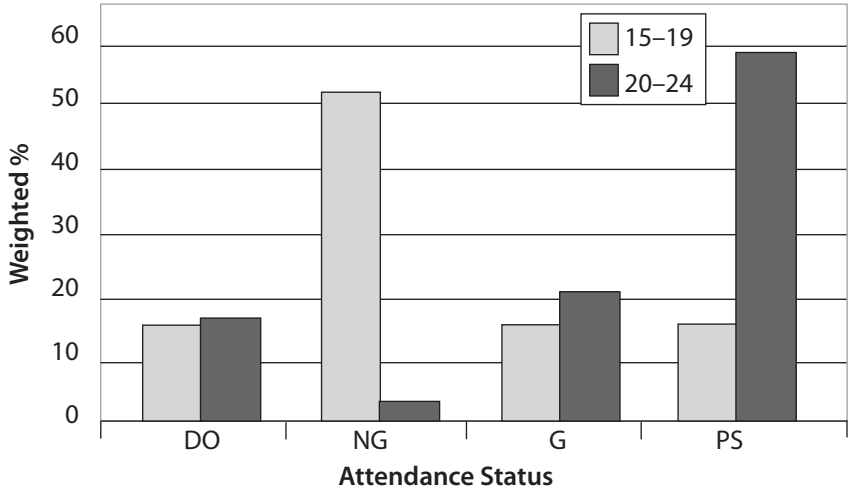
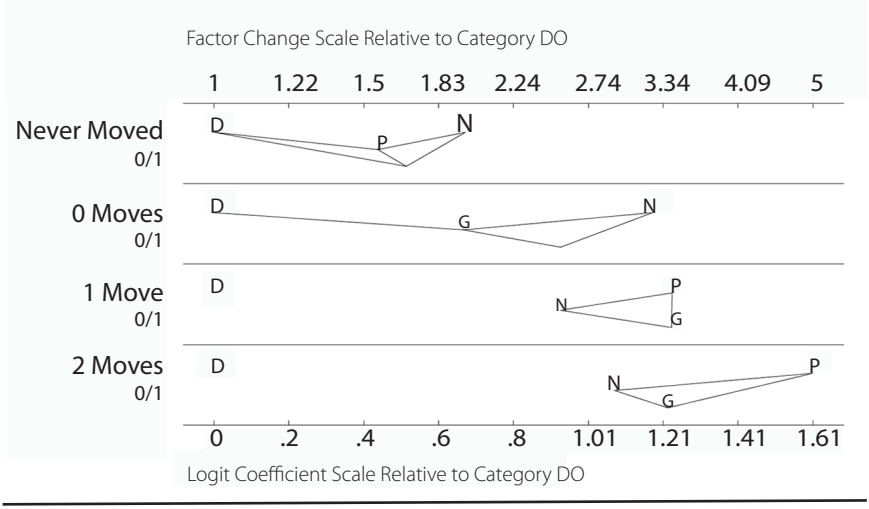


Figure 9.11: Odds of School Attendance by Number of Moves (Ages 15-19)



letter is proportional to the size of the change in probability of an outcome given a one unit change in independent variable controlling for all other variables. It can be interpreted as the substantive impact of the variable on the outcome (Long & Freese 2006).

Figure 9.11 shows the odds of school attendance by number of moves for the 15–19 year old group. The reference group for number of moves is the three or more moves category. For the dependent variable, the odds of each outcome are relative to the dropout group, which takes a value of 1 across all categories of the independent variable. STATA calculates significance tests for each pair of

Figure 9.12: Odds of School Attendance by Number of Moves (Ages 20-24)

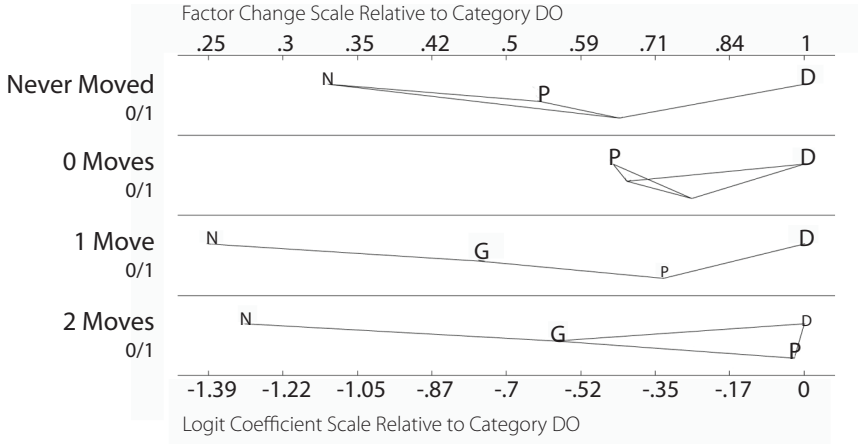


Figure 9.13: Odds of School Attendance by Sex (Ages 15-19)

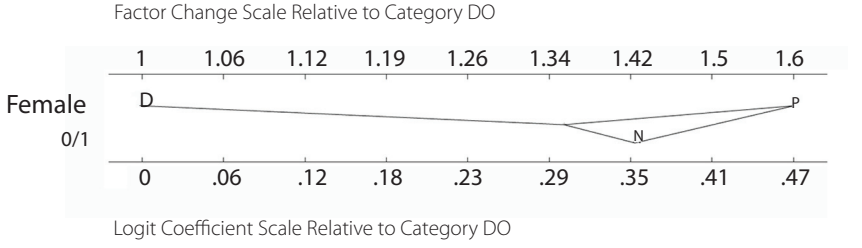
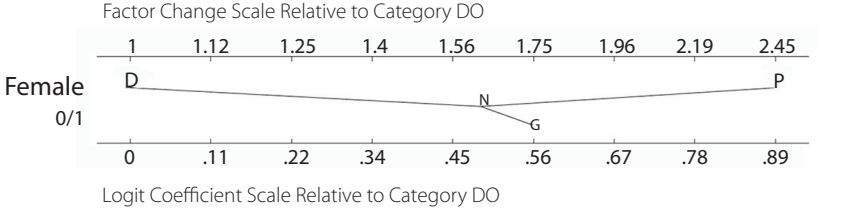


Figure 9.14: Odds of School Attendance by Sex (Ages 20-24)



educational outcomes, which are *not* connected by a line if significant. If we look at the never moved category, we see that the dropout and non-graduate groups do not have a connecting line indicating that compared to those who have moved three or more times, those who have never moved have 1.97 higher odds of being a non-graduate than a dropout. There were no significant differences between dropouts and graduates or post-secondary. If we look at the next category, those who indicated 0 moves in the past five years, relative to the reference group, were 225% more likely to be a non-graduate and 154% more likely to be in post-secondary than being a dropout. There was no significant difference between the

odds of being a graduate and a dropout between non-movers and frequent movers, as indicated by the line connecting these two outcomes. If we move down to the "one move" category, we see that those who had moved once in the past five years, compared to the reference, were 2.53, 3.42, and 3.43 times more likely to be a non-graduate, graduate, and post-secondary attender, respectively, than being a dropout. The lines between post-secondary and non-graduate, non-graduate and graduate, and graduate and post-secondary indicate no significant differences in the odds of being in these groups between one time movers and frequent movers. Finally, among those who had moved twice in the past five years (the last line in the chart), compared to those who had moved three plus times, the odds were higher for being a non-graduate (193%), graduate (239%), and post-secondary attender (400%) than being a dropout. There were no significant differences in the relative odds between two-time movers and three-time movers in terms of being a non-graduate, graduate, or post-secondary attender.

Unlike the 15 to 19 year olds, less frequent moves were associated with poorer educational outcomes among 20 to 24 year olds (**Figure 9.12**). Those who had never moved had 0.33 lower odds of being a non-graduate and 0.54 lower odds of attending post-secondary, compared to dropping out. Respondents who had not moved in the past five years, compared to the reference, had 0.64 lower odds of attending post-secondary relative to dropping out. Those who had moved once were 75% less likely to be a non-graduate and 53% less likely to be a graduate compared to a dropout. However, moving once was associated with a greater likelihood of attending post-secondary (OR=2.90) compared to not graduating. Even those who had moved twice in the past five years were less likely to be a non-graduate than a dropout (OR=0.27), but more likely to be a post-secondary attender than non-graduate (OR=3.61), than those who had moved three or more times. Rerunning the analysis with never moved as the reference, confirmed that among the older group, moving two or more times significantly increased the likelihood of attending post-secondary compared to dropping out (results not shown).

Compared to their male counterparts, females aged 15 to 19 had 1.42 and 1.60 greater odds of being a non-graduate or post-secondary attender than a dropout (**Figure 9.13**). The pattern was similar for the 20 to 24 age group (**Figure 9.14**). Females, relative to males, had 1.71 greater odds of being a graduate and 2.45 greater odds of attending post-secondary compared to being a dropout. In addition, females were 1.40 times more likely to be in post-secondary compared to being a graduate.

In the younger group, those who had stronger ties off-reserve, relative to those with stronger ties on-reserve, were 63% more likely to be a non-graduate, 95% more likely to be a graduate, and 75% more likely to be a post-secondary attender than a dropout (**Figure 9.15**). On the other hand, respondents with stronger ties to the Arctic, compared to those with reserve ties, were 50% less likely to be a graduate and 52% less likely to attend post-secondary. Among the older group,

Figure 9.15: Odds of School Attendance by Community Ties (Ages 15-19)

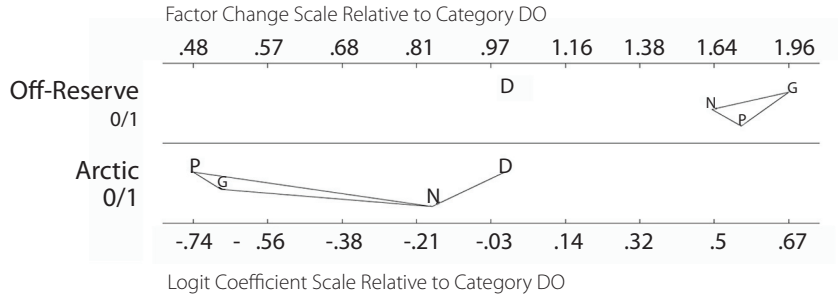
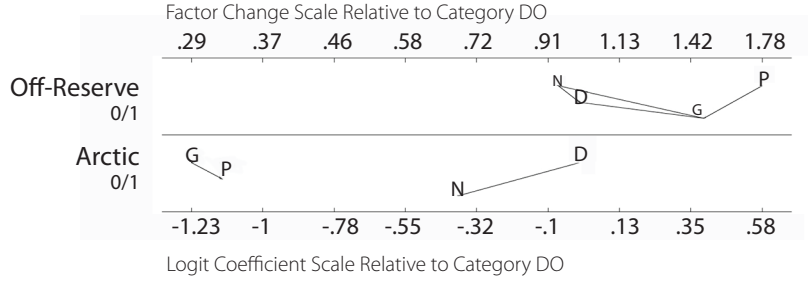


Figure 9.16: Odds of School Attendance by Community Ties (Ages 20-24)



having stronger ties off-reserve, compared to on-reserve, increased the likelihood of attending post-secondary relative to dropping out by 78% and relative to being a non-graduate by 90% (**Figure 9.16**). Among those in the Arctic, the odds of being in the graduate category was 0.29, relative to being in the dropout category and 0.43, relative to being in the non-graduate category for the older group. They also had lower odds of being in post-secondary compared to dropping out (OR=0.32) or not graduating (OR=0.48).

When we look at family structure, we see that among the younger age group, being a partner or parent, rather than a child, decreases the odds of being a non-graduate compared to a dropout by 0.11 (**Figure 9.17**). However, it is also associated with 4.27 higher odds of being in post-secondary and 4.85 higher odds of being a graduate than being a non-graduate. Relative to being a child, being in a non-family is associated with a greater likelihood of attending post-secondary relative to the other categories (302% relative to dropping out, 410% relative to not graduating, and 123% relative to being a graduate). In addition, the odds of being a graduate compared to a non-graduate are 129% higher. In the older group, compared to those who identified as being a child, those who were partners or parents were less likely to be in post-secondary, relative to being a dropout (34%) or a graduate (43%) (**Figure 9.18**). Those in non-families, compared to those still living with parents or grandparents, were more likely to be a graduate (OR=2.06) or post-secondary attender (OR=2.13) compared to being a dropout.

Figure 9.17: Odds of School Attendance by Family Structure (Ages 15-19)

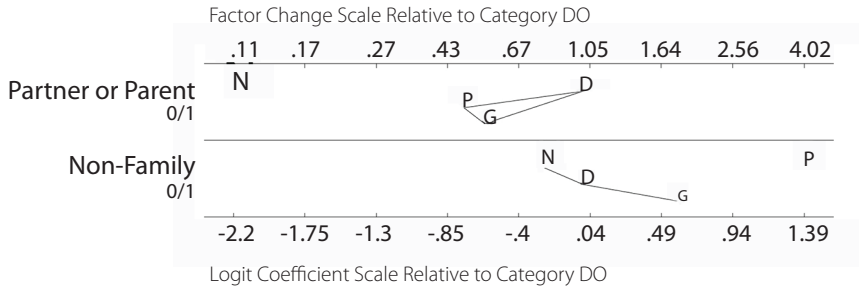
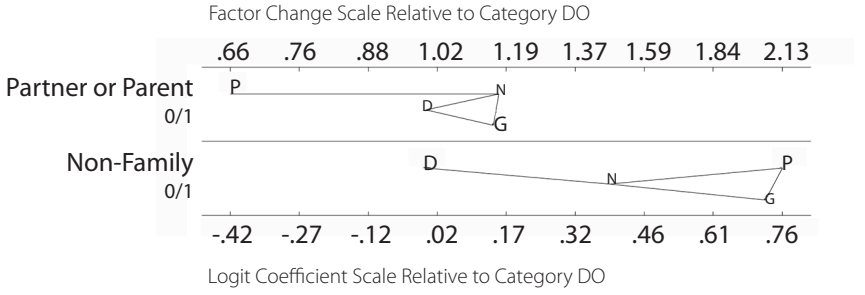


Figure 9.18: Odds of School Attendance by Family Structure (Ages 20-24)



Labour force participation patterns show that among unemployed 15–19 year olds, relative to their employed counterparts, the odds of being a graduate relative to being a non-graduate are 0.61 lower (**Figure 9.19**). Similarly, the odds of being in post-secondary compared to being a non-graduate are 0.55 less. Among those out of the labour force, compared to respondents who were employed, the likelihood of being a non-graduate (289%) or post-secondary attender (59%) were greater than being a dropout. Interestingly, the odds of being a graduate were lower by 0.53 compared to being a dropout. The odds of being a graduate or post-secondary attender relative to being a non-graduate are 86% and 59% lower. The odds of being in post-secondary, relative to being a graduate, are 3.02 times greater. In the 20 to 24 age group, compared to those who are employed, those who are unemployed were less likely to be a graduate (OR=0.46) or have gone on to post-secondary (OR=0.47) compared to dropping out (**Figure 9.20**). Those who were out of the labour force, compared to their employed counterparts, were 95% more likely to be a non-graduate than a dropout, but less likely to be a graduate by 59% and less likely to be attending post-secondary by 44% than be a dropout. They were also 79% less likely to be a graduate compared to a non-graduate and 71% less likely to attend post-secondary compared to being a non-graduate.

Figures 9.21 to 9.26 plot the predicted probabilities of each outcome across the independent variable for each age group. **Figure 9.21** shows that, as expected, given their age, 15 to 19 year olds have the highest overall probability of being a

Figure 9.19: Odds of School Attendance by Labour Force Participation (Ages 15-19)

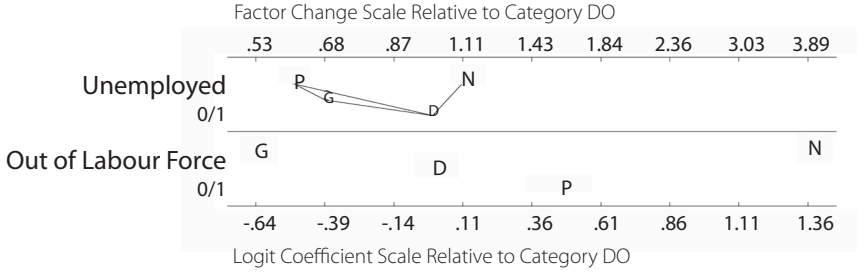


Figure 9.20: Odds of School Attendance by Labour Force Participant (Ages 20-24)

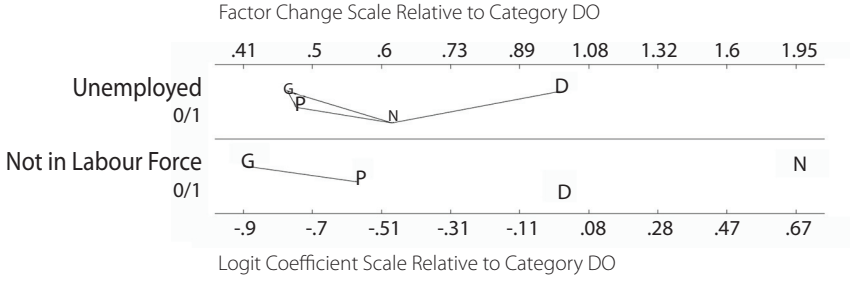


Figure 9.21: Probability of School Attendance by Income (Ages 15-19)

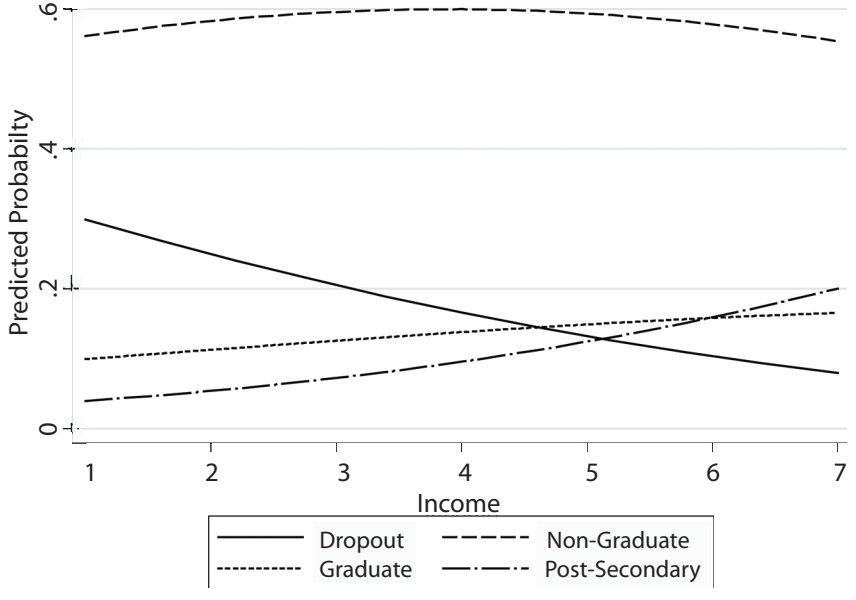
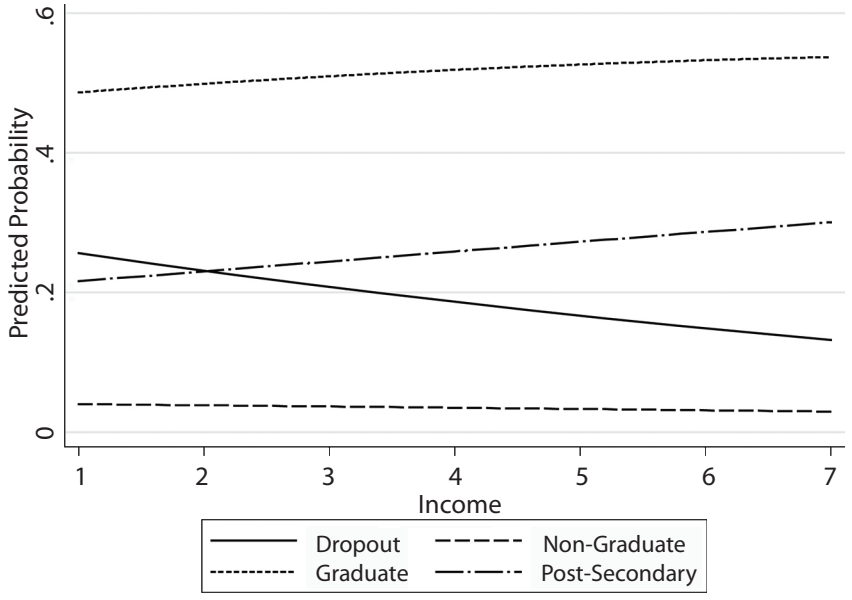


Figure 9.22: Probability of School Attendance by Income (Ages 20–24)



non-graduate and the lowest of being in post-secondary. However, income affects the chances of educational outcomes. The probability of dropping out decreases quite dramatically as income increases, while the odds of graduating or attending post-secondary increase. **Figure 9.22** plots the results for the older group, which reveals a similar pattern. In this case, the odds of being a graduate are highest overall and being a non-graduate is lowest. There is little effect of income on the probability of being in these two categories. On the other hand, the odds of dropping out decline as income increases and the odds of attending post-secondary also rise slightly.

Figure 9.23 indicates that, as social support increases, the predicted probability of dropping out decreases by more than half. The chances of being a non-graduate or graduate increase while post-secondary attendance remains fairly constant across support levels. The same graph for 20 to 24 year olds shows that the probability of dropping out decreases substantially among those with higher levels of social support (**Figure 9.24**). The probability of being a graduate increases slightly while that of being a non-graduate is fairly constant. The chances of a respondent attending post-secondary more than double across social support scores.

The only variable in the model that failed to achieve statistical significance for any of the educational outcomes or age groups was social cohesion. **Figures 9.25** and **9.26** confirm that it had little effect on educational outcome probabilities.

Figure 9.23: Probability of School Attendance by Support (Ages 15–19)

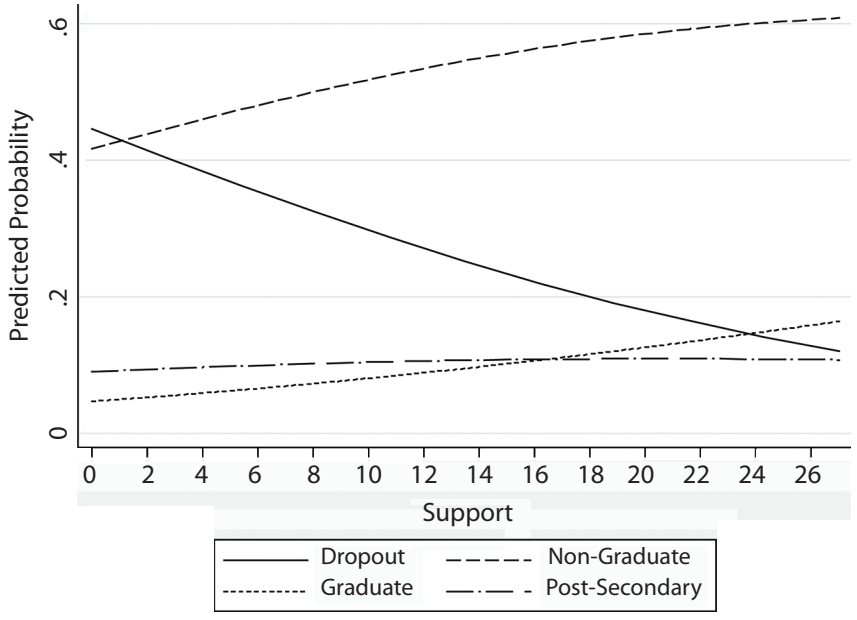


Figure 9.24: Probability of School Attendance by Support (Ages 20–24)

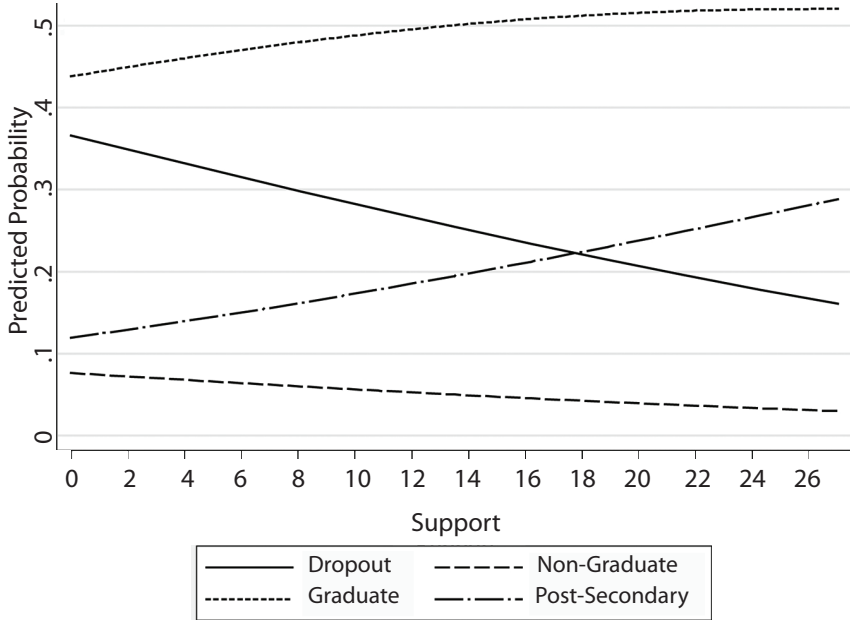
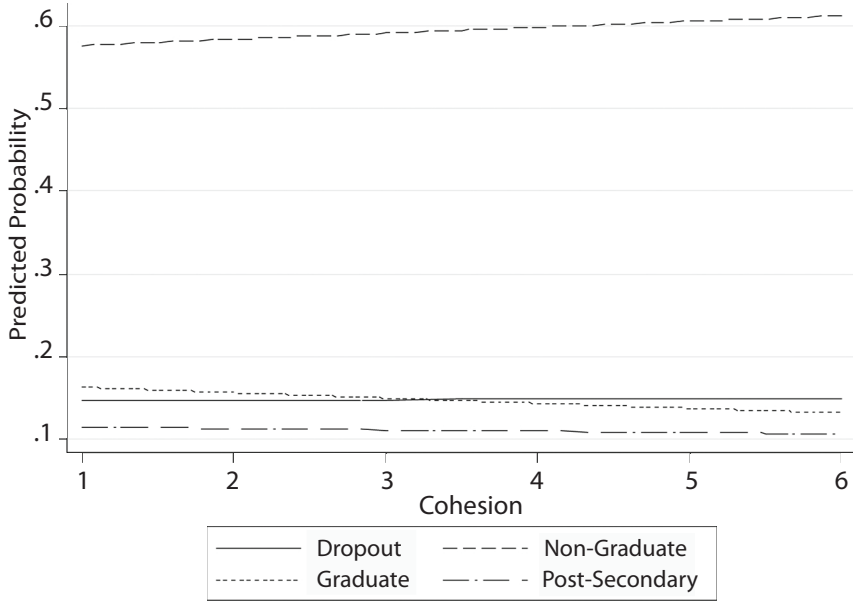


Figure 9.25: Probability of School Attendance by Cohesion (Ages 15–19)

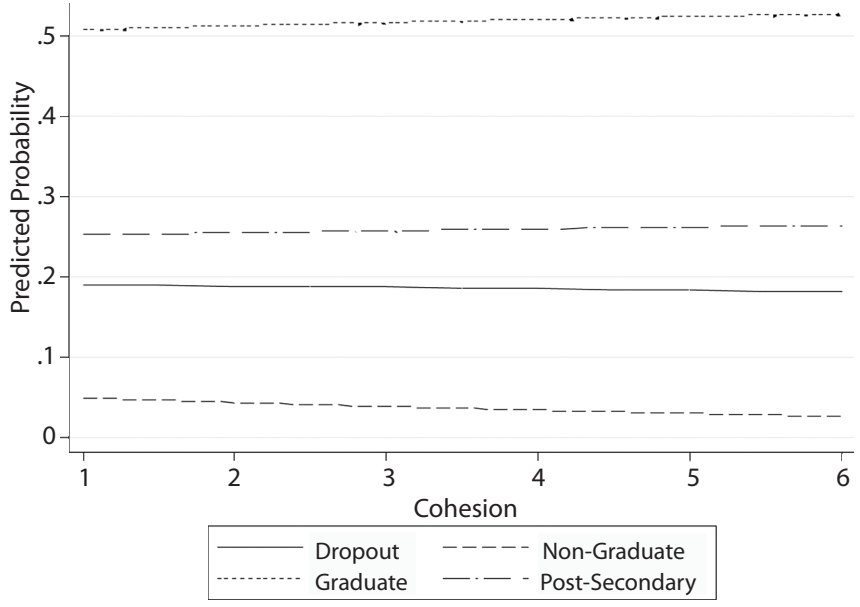


Discussion

Despite data limitations, we feel that the conceptual model proposed in this chapter has the potential to assist researchers in unravelling the complex relationships between mobility, social capital, social cohesion, and social and economic outcomes. Based on these analyses, it appears that movement is a double edge sword with respect to educational attainment. The results suggest that among 15 to 19 year olds, frequent moves increase the likelihood of dropping out of secondary school. However, some movement in the past five years was associated with the highest odds of attending post-secondary. We can conclude that the odds of staying in school, graduating, and continuing on to post-secondary are higher for those who move less frequently. However, those who had moved once or twice in the past five years had higher odds of graduating or attending post-secondary, which suggests that some movement normatively accompanies the completion of high school.

Cross-tabs confirm that, among 15 to 19 year olds, those living with parents have a higher expected frequency of being non-movers (results not shown). Those who are married, common-law, or a single parent are overrepresented among frequent movers. Individuals not in a census family have a higher than expected frequency of moving once, twice, or three or more times. There are also differences by age in the relationship between labour force participation and educational attainment. In this group, those out of the labour force had a greater likelihood of attending school, either high school or post-secondary, while those who were

Figure 9.26: Probability of School Attendance by Cohesion (Ages 20–24)



employed were more likely to have graduated. The picture seems to be that among adolescents residential stability, living with parents or guardians, and being out of the labour force is beneficial in terms of staying in school. This pattern is quite consistent with our basic model. However, following the completion of school, it is advantageous to move in order to purse opportunities, either a job or post-secondary training. This period of pursuing opportunities may involve several moves without significant detriment to educational attainment. However, forming families early, either by partnering or parenting, is associated with frequent moves and lower levels of attainment. Hull (2005) also found that lone parenthood was a barrier to higher education among 15 to 24 year olds.

In the older group, the pattern was more complex. Those who moved three or more times in the past five years had the highest odds of being a non-graduate compared to non-movers. If we use the results from the younger cohort to provide context, we can speculate that some of these individuals were also frequent movers when they were younger and may have fallen behind their peers or dropped out and subsequently returned. Longitudinal data is needed to trace moving patterns across childhood and adolescence and its relationship to cumulative advantage or disadvantage. On the other hand, those who had moved two or more times in the past five years also had higher odds of attending post-secondary compared to non-movers. These findings reinforce the conclusion that some movement in order to pursue opportunities is advantageous with respect to educational attainment. Another possibility suggested in the literature is that strong bonding ties may be

detrimental when group norms discourage the pursuit of higher education (White, Spence, & Maxim 2005). Movement may serve to break or weaken bonding ties in order to minimize pressures to maintain low educational norms. Studies of the Aboriginal cohort in the Youth in Transition Survey (YITS) confirms a connection between parents' attitudes toward education and educational attainment (Maxim & White 2006). No suitable data was available to test what proportion of young people may have moved for this reason. In other cases, strong bonding capital is an asset. For example, those with strong bonding social capital networks that are linked to resources and bridged with other educational institutions tend to have positive effects on the graduate rate and transition to post-secondary (White, Spence, & Maxim 2005). More direct measures of the types and characteristics of social capital are needed to uncover the dynamics that influence attainment.

In terms of family status, compared to those living with parents, individuals with their own families were much less likely to attend post-secondary while those in non-family arrangements were more likely to have either graduated or pursued post-secondary. Therefore, these results suggest that continuing to live at home following graduation or while pursing post-secondary is less normative. Even in this older cohort, family formation decreases the odds of pursing higher education. What we cannot tell from this data is whether there is a difference between those who became a partner or parent during adolescence versus those who made this transition as an adult. It is more common among Aboriginals, especially Aboriginal women, to form families early (Anderson 2002) and attend post-secondary later on (see Clement in this volume). Therefore, if we were able to look at these individuals later in adulthood, the differences in educational attainment may be less dramatic. The relationship between moving and family status (cross-tabs not shown) reveal that those who have never moved are more likely to be living with parents. Those who are living with partners or children are have a higher than expected frequency of not moving in the past five years, but a lower frequency of never moving, which is to be expected since many will have established their own households. Interestingly, there appears to be greater residential stability among individuals who form families at this stage, compared to the younger cohort. Individuals who were not in a census family were less likely to be non-movers and more likely to have moved at least once. In this group, it is clear that frequent movement is beneficial for those who have graduated and are ready to move on to post-secondary. Family structure is also important with those living in non-family arrangements being in a better position to pursue post-secondary. In this age group, compared to being employed, unemployment is related to lower attainment, especially with respect to graduating and attending post-secondary. Those who were not in the labour force were much more likely to be still in high school and less likely to be graduates or in post-secondary. It seems in this age group, employment is associated with higher odds of educational attainment. In fact, a reverse causation explanation is possible with those who completed

high school or trade, college, or university training being more likely to find employment.

The pattern by gender is consistent in both groups, with females having higher levels of attainment compared to males. Other researchers have reported similar findings (for example, see Hull 2005). Similarly, those with ties to off-reserve communities have greater odds of continuing or completing their educations, while those in the Arctic are less likely to do so, compared to those with on-reserve ties. Cross-tabs examining the relationship between community ties and mobility show that there is a very high association between living in the Arctic and having never moved (results not shown). Therefore, the churn migration pattern is less common among Aboriginal peoples from this region. One other interesting finding was that moving at least once was more common among 15 to 19 year olds with strong ties to reserves, but not among their older counterparts. This pattern may reflect movement as part of a family unit.

It is also the case that higher economic family incomes are associated with a notable reduction in the odds of dropping out and an increase in the odds of attending post-secondary, which suggests disadvantages associated with poverty, lack of faith that higher education will have tangible pay-offs, and/or pressures to make money interfere with school completion. Future research may shed light on what distinguishes those who complete secondary from those who dropout within the same socio-economic strata. Even more dramatic was the decline in the odds of dropping out as social support levels increased. In general, social support was positively associated with higher educational attainment, which implies that social capital networks that enable individuals to access positive forms of support are essential. To what extent support may buffer the negative effects of socio-economic disadvantage and mobility are questions for future research.

The lack of significant findings for social cohesion warrants comment. Unfortunately, the only measures available in the APS PUMF that are essentially types of social disorder capture only the negative extreme of the concept's valence. Two key dimensions mentioned in the literature include inequalities and social exclusion, and the strength of social relations, interactions, and ties (Beauvais & Jenson 2002). These variables miss positive dimensions of cohesion, such as participation in community life, sense of belonging, and levels of trust. Since cohesion is a multifaceted concept, measures that tap into different dimensions may provide a deeper understanding of how it operates. Better concept measurement is needed before we declare cohesion to be unrelated to educational attainment.

Directions for Future Research

An important limitation of this research is that it is cross-sectional. The life course perspective (for example see, Elder, Johnson, & Crosnoe 2003) can help us situate individuals within contexts of their own and family life history and

historical period. In particular, by taking a long view of personal history, we can examine how movers and non-movers differ prior to moves. We can also examine the effect of mobility history rather than mobility within a limited time period. We may discover there are different consequences depending on whether moves are normatively or non-normatively timed. It may also matter what triggers the move and what other events are occurring within the family or community. For example, the consequences of mobility may be particularly negative when triggered by or accompanied by martial breakdown. The life course would also enable us to link family members' personal histories in order to understand these interrelated dynamics.

Research has suggested important interaction effects with family structure. Research on children has suggested that high mobility is not detrimental to school performance among children who live with both biological parents, while any mobility negatively affected children living in other family structures (Tucker, Marx, & Long 1998). It may be that family transitions reduce human and social capital, which creates conditions in which the loss of community capital is injurious to educational outcomes (Hagan, MacMillan, & Wheaton 1996, Tucker, Marx, & Long 1998). In addition, we know little about the long-term effects of mobility in childhood. Hango (2006) used data from the 1986 Canadian General Social Survey (GSS) to examine the impact of childhood mobility on educational attainment among 25 to 79 year olds. The results suggested that for most individuals, the positive benefits of childhood mobility outweighed the potential negative losses of social ties in the short-term and the heightened stress. Over the long-run, living in more than one community before the age of 15 had a positive effect on educational attainment. However, it is important to note that longer-distance moves were more common among higher socio-economic status families. These findings further stress the potentially important effects of the impetus for the move, family characteristics, and resources available in the new location.

Research has suggested that groups that are prone to exclusion, which include Aboriginal peoples, may have strong bonding social capital, but lack bridging ties with other social groups or local institutions and linking ties with powerful social organizations and institutions (Policy Research Initiative Project, 2005). Our measure of social capital primarily taps into positive bonding dimensions, but does not capture the role of negative aspects of bonding, bridging, or linking ties. Future research can examine how bridging ties and linking social capital may be affected by socio-demographic characteristics and mobility, and in turn influence social and economic outcomes. "Understanding the contextual conditions in migration decision making is also necessary if we are to identify the types of policies that could make migration transitions easier to the individuals involved" (Cooke & Belanger 2006, 159).

Policy Implications

The analyses presented here along with the findings of other scholars suggests that there is a distinction between moves in which people are forced to leave in order to find housing, escape violence, access services or supports, for example, and those in which people choose to leave to pursue opportunities that are perceived to have long-term benefits, such as pursuing higher education and better employment. If this is the case, then policy can reduce forced mobility by providing resources such as suitable and affordable housing or protection, services, and support for those who are leaving abusive situations. It can also facilitate movement among those who are pursing opportunities by providing things such as financial support and programs to remove or reduce barriers. In both cases, the key is to assist individuals in maintaining existing ties and building new ones within new communities. Linking individuals to local institutions may be particularly important for achieving goals related to employment or education. There is also a need to provide services with a family focus since residential changes often are precipitated by changes in family structure or function. Appropriate supports for parents and children may reduce the negative effects of breaking social and community ties.

Putnam (2000) argued "social capital is not a substitute for effective public policy but rather a prerequisite for it and, in part, a consequence of it" (Social Capital and America's Ills, 14). The Policy Research Initiative Project (2005) concluded that social capital perspectives are particularly useful in addressing the needs of populations at risk of exclusion during life transitions, and in promoting community development. Social policy can assist citizens to acquire human and social capital, which enable them to fully participate in their communities and nations (Policy Research Initiative Project 2005).

Endnotes

1 Surveys of the on-reserve Aboriginal population have been limited by incomplete enumeration of reserves and undercoverage on-reserve. These analyses are not subject to these limitations since the data were collected from the off-reserve population.

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