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IMMIGRANT CATEGORY, SOCIAL NETWORKS, AND ETHNIC WORKPLACES OVER TIME:

A LONGITUDINAL ANALYSIS OF IMMIGRANTS' ECONOMIC INTEGRATION IN CANADA

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ABSTRACT

The economic benefits to immigrants of taking jobs in ethnic workplaces, relative to the open economy, are heavily debated. We examine longitudinally how the choice of ethnic or non-ethnic workplace influences the ethnic composition of social networks, how these factors impact immigrants' economic success, and how these patterns differ across immigrant categories. We analyze the Longitudinal Survey of Immigrants to Canada, with data 6 months, 2 years, and 4 years after arrival, and find immigrant category differences in routes to economic success. While economic immigrants benefit from non-ethnic workplaces, family immigrants face economic penalties when they enter the open economy, and only refugees benefit from entrepreneurship. Immigration policies sort immigrants into different labour market trajectories with different financial returns.

There has been considerable debate on the economic benefits to immigrants of taking jobs in ethnic workplaces (Sanders, 2002; Sanders et al., 2002). While some claim that ethnic enclaves provide an alternate route to mobility for immigrants who may be penalized by language and cultural barriers in the primary labour market (Portes and Bach 1985; Wilson and Portes 1980; Portes and Stepick 1993), others argue that immigrant employees experience disadvantages in ethnic workplaces relative to their counterparts in the open economy (Sanders and Nee 1987; Nee et al. 1994; Nee and Sanders 2001). The strong sociological interest in this question speaks to its significance for our understanding of contemporary immigrant incorporation. A traditional model of assimilation, developed mainly around European immigration near the turn of the 20th century, sees immigrants as advancing economically as they integrate socially and structurally with those outside the ethnic group.

Yet the possibility of economic mobility within the ethnic community, by relying on ethnic ties and resources, suggests that economic incorporation does not necessitate the abandonment of ethnic connections (Fong and Ooka, 2002). Examining how initial movement into jobs in the ethnic or open economy influences subsequent ethnic ties is crucial to understanding the mechanisms behind immigrants' potentially disparate paths to integration. Yet there are many distinct categories of immigrants—such as economic, family reunification, and refugee—which are associated with different motivations, skills, and forms of capital. It is therefore difficult to fully understand the comprehensive mechanisms of integration without a broad sample across immigrant categories. Several studies consider how ethnic ties and social capital lead immigrants to participate in the ethnic economy (Zhou 1992; Nee and Sanders, 2001; Waldinger 1994; Stepick 1994), yet most are restricted to specific immigrant groups or have a limited ability to distinguish the causal effect of workplace trajectories on new social ties and vice versa. Longitudinal datasets on immigration are rare, and thus research on how different categories of immigrants move through different labour markets, and how this relates to the types of social capital they form over time, remains a crucial gap in the literature on immigrant integration.¹

Social ties, and the social capital they activate, are central to the incorporation of immigrants. Many rely on ethnic ties for scarce resources and information to facilitate the settlement process (Zhou and Bankston, 1994; Zhou and Bankston, 1998; Marger, 2001; Menjivar 2000; Waldinger, 1995, 1996; Hagan 1998). However, due to network homophily, this social support may

¹ The few longitudinal studies which do examine immigrant integration tend to focus directly on changes in occupational status and income (Chiswick et al., 2003; Chiswick et al., 2005b) or how human capital changes and affects economic outcomes (Chiswick et al., 2006; Kler, 2006; Li, 2001; Chiswick et al., 2004). Li (2001) does consider job choice by examining the likelihood of immigrant self-employment in Canada. However, none of this research considers the influence of job choice on social network composition, or changes in social networks, and resulting economic outcomes.

discourage immigrants from building an ethnically diverse social network, and make them more dependent on these types of ethnic resources in the future. This can reinforce a “segmented trajectory of adaptation” (Nee and Sanders 2001), where those who rely on their ethnic-based social capital for mobility are likely to become more isolated from the economic and social mainstream, while those who rely on investments in their human capital for mobility are more likely to integrate into it.

We examine how the choice of workplace type (ethnic or non-ethnic²) influences the ethnic composition of social networks – what we call *ethnic network portfolios* – and how these two factors impact immigrants’ economic success. We offer two major contributions to this literature: (1) we examine these patterns over time to identify the causal relationship between workplace type, the ethnicity of social ties, and income gains. This allows us to analyze whether initial movement into a particular workplace type leads to developing social ties that subsequently reinforce that integration pathway. And (2) we analyze how these patterns differ across different categories of immigrants. In these ways, we consider the precise pathways to integration that different immigrants follow.

In their forms-of-capital model, Nee and Sanders (2001) recognize that immigrants arrive with different types of capital – human, financial and social capital – which help them integrate and also shape their trajectories into the ethnic or non-ethnic economy. Those who arrive with or develop high stocks of social capital and lower levels of human capital are more likely to become self-employed or work in the ethnic economy. Those who arrive with higher levels

² Throughout this paper, we use the term “ethnic” to mean “co-ethnic.” Ethnic workplaces and ethnic ties refer to those associated with the immigrant’s own ethnic group. Thus, non-ethnic ties and workplaces may be associated with other immigrant or ethnic groups or with the mainstream or dominant group. Developing ties with or working with a different ethnic group indicates movement away from reliance on one’s own ethnic ties and toward a labour market open to workers regardless of ascriptive characteristics.

of human capital are more likely to move into the open economy. Yet a perspective that focuses on the resources immigrants bring to a new country and subsequently develop must also recognize how immigration policy, through its distinct visa categories, either selects for or enhances these different forms of capital in different categories of immigrants.³ Family reunification immigrants by definition have ethnic social capital in the form of support from relatives and often an established ethnic community. In some cases, family sponsors bear direct responsibility for the immigrants' integration. Economic immigrants are selected for their ability to rely on human or financial capital as a resource for integration. While not selected on this basis, even refugees are often sponsored by the government or private citizens or groups, enhancing their likelihood of forming social ties outside their ethnic group. We must therefore consider how the resources associated with different immigrant categories shape labour market trajectories.

Immigrant categories are not simply synonymous with the different types of human, financial or social capital. Economic immigrants are selected in part for their economic "suitability," or fit with the economic climate. Government officials, and in some cases particular employers, weigh the needs of the labour market with the particular skills and resources these immigrants can provide. By contrast, even if family immigrants and refugees are also highly motivated and have labour market skills or training, they are not primarily selected on the basis of their fit with the economy. Thus, even when various forms of capital are controlled, we would still expect immigrants' visa categories to affect their labour market outcomes. The sorting of immigrants into dif-

³ Nee & Sanders (2001) consider variation across respondents in levels of social, financial, and human-cultural capital, but do not describe or analyze the visa categories of their respondents.

ferent visa categories does much of the work of leading them into segmented paths of incorporation.

We take advantage of a unique data set, the Longitudinal Survey of Immigrants to Canada (LSIC), to analyze the ethnic network portfolios and economic outcomes of immigrants at six months, two years, and four years after arrival. As a national sample of new immigrants, the dataset allows us to consider incorporation pathways across ethnic groups and on a national scale – a considerable advantage since many of the studies that have advanced this literature look only at specific ethnic groups in particular urban settings (Portes and Bach 1985; Portes and Stepick 1993; Wilson and Portes 1980; Sanders and Nee 1987; Nee et al. 1994; Logan et al. 2003; Fong and Ooka 2002; Li and Dong 2007). We focus in particular on the extent to which family immigrants have different incorporation trajectories than economic immigrants, and whether working in the ethnic economy, as an employee or entrepreneur, offers them an alternative avenue of mobility based on their ethnic social capital (Wilson and Portes 1980). Our findings emphasize the need to consider immigrant category in examining immigrants' workplace trajectories over time. Family immigrants are more likely to remain within the ethnic labour market, and working in the ethnic labour market leads to building co-ethnic friendships. There are also significant differences between categories of immigrants in success outside the ethnic economy. Family immigrants who do move into the open economy fail to reap its long-term benefits in the same way as economic immigrants. While family immigrants do not reap economic gains from entrepreneurship, refugees do use this as a path to long-term success. Thus, we find support for both sides of the ethnic enclave debate when it is qualified by immigrant category. We conclude that immigrants do follow segmented trajectories of incorporation. While the open economy provides the

greatest long-term benefits to economic immigrants and allows them to follow a traditional path of assimilation, the ethnic economy offers family immigrants and refugees the best economic options given the structural barriers they face in the open labour market.

DIVERSE PATHS OF IMMIGRANT INCORPORATION

In the late 20th century, immigration to North America rose at remarkable rates, bringing a diverse population to Canadian as well as American shores. In 2006, 19.8% of the Canadian population were immigrants, making the nation second only to Australia in its acceptance of foreigners (Statistics Canada 2006a).⁴ While earlier immigration waves originated mainly in Europe, the European share of the immigrant population declined in the late 20th century, while the proportion from Asia, the Middle East, and Africa steadily increased. In 2006, 58.3% of all immigrants in Canada were born in Asia and the Middle East (Statistics Canada 2006b).

The large influx of immigrants to North America in recent years, as well as the growing diversity of their origins, has led many scholars to question whether the traditional assimilation model represents the experiences of these newcomers as it did for earlier immigrants. Several alternative accounts have grown out of critiques of the assimilation model (Nee and Sanders 2001). The segmented or dual labour market approach contends that two or more labour markets develop, with a secondary labour market characterized by low-paying, low-skill jobs that provide little opportunity for mobility (Piore 1979). With few options for movement between the primary and secondary labour markets, immigrants become trapped in the secondary labour market,

⁴ The foreign-born comprised 12.5% of the U.S. population, according to the 2006-2008 American Community Survey 3-Year Estimates.

and are paid wages that provide low returns on their human capital investments. Labour thus becomes ethnically divided, resulting in ethnic antagonism (Bonacich 1972) and making assimilation less likely for some immigrants who start down that path. Middleman minority theory contends that some minority groups occupy an intermediate economic position between elites and workers, concentrating in small businesses and occupations that allow elites to avoid dealing with the masses directly. Such minority groups often bear the brunt of hostility from both workers and their elite clientele and develop a high degree of internal solidarity which makes them resistant to assimilation (Bonacich 1973).

In their enclave economy theory, Portes and colleagues maintain that some immigrants avoid the disadvantages of the secondary labour market by establishing an immigrant enclave economy that provides similar returns to human capital investments as those in the primary labour market (Wilson and Portes 1980; Portes and Bach 1985; Portes and Manning 1986; Portes and Stepick 1985; Portes and Jensen 1989). Within the enclave economy, immigrants are not confined by their language abilities or cultural traits and their foreign credentials may be recognized. Furthermore, reciprocal obligations of bounded solidarity and enforceable trust help ethnic businesses succeed (Portes and Sensenbrenner 1993; Portes 1995). Recent immigrants who find work in the enclave economy tend to meet more people of their own ethnicity, and are more likely to form ethnic ties. Such ethnic ties may provide economic resources to help immigrants start businesses (Hum 2001; Light 1972, 1984), and ethnic enclaves encourage the growth of entrepreneurship (Bailey and Waldinger 1991). Upward mobility through the ethnic community, one of the main paths of segmented assimilation (Portes and Zhou 1993; Portes and

Rumbaut 2001), provides immigrants with an alternative route to upward mobility without having to assimilate into mainstream society or structures.

Mixed evidence persists on immigrants' labour market success in the ethnic versus the open labour market (Sanders 2002). Some scholars argue that ethnic enclaves and workplaces limit opportunities for social mobility. Sanders and Nee (1987) find that employees in ethnic labour markets receive lower returns to their human capital than immigrants in the primary labour market, although the returns for entrepreneurs are commensurate in the different labour markets. In Canada, working in an ethnic workplace may limit the potential for upward mobility by confining immigrants to low-paying jobs (Pendakur and Pendakur 2002). Because of the over-representation of low-paying occupations and industries in the ethnic economy, immigrant workers in ethnic workplaces earn substantially lower income than immigrant workers in non-ethnic workplaces (Hou 2008). Based on a study of Asian immigrants in Los Angeles, Nee, Sanders and Surnau (1994) claim that substantial movement between employment sectors indicates porous boundaries rather than a dual labour market with immigrants remaining permanently in the ethnic economy.

Some of the diverse findings in the ethnic economy literature revolve around the use of different definitions and measures (Zhou 2004; Light et al. 1994; Sanders 2002). Debates have evolved toward the need to distinguish entrepreneurship as a distinct form of ethnic employment (Light 1984; Sanders and Nee 1987; Logan et al. 2003) and to focus on ethnic workplaces rather than residential enclaves, as those who do well in an ethnic economy may move to suburban or less concentrated ethnic neighbourhoods (Portes and Jensen 1987).

There are multiple forms of ethnic economies, depending on the ethnic concentration of workers, pattern of ownership, and the interaction between the two (Logan et al. 2003; Light et al. 1994; Logan and Alba 1999). For example, an "employment niche" consists primarily of ethnic workers, but with non-ethnic owners. Workers often establish themselves within a particular niche and use information about openings or their privileged position within the workplace to recruit other members of their ethnic group (Waldinger 1996; Model 1993). An "enclave economy" has primarily ethnic workers and ethnic owners, and is the primary form that Portes and his colleagues refer to as the "ethnic enclave." Ethnic entrepreneurs may also establish an "entrepreneurial niche," where members of their group function as owners, but draw workers heavily from outside the ethnic group so that the workforce is predominantly non-ethnic (Logan et al. 2003). These types of ethnic economies can have different benefits, for both workers and entrepreneurs, suggesting the need to consider the different forms of workplace that draw on the ethnic community for their governance or workforce.⁵ Thus, while we draw upon the definition of an ethnic workplace put forth by Light and his colleagues as "all ethnic-owned business firms and their co-ethnic personnel irrespective of geographical location" (1993: 581), we also incorporate employment niches into our definition of ethnic workplaces. In this way, we can explore a wide spectrum of ethnic workplace configurations.

⁵ In discussing employment niches, enclave economies, and entrepreneurial niches, Logan, Alba and Stults (2003) refer to the entire economic sector or industry because census data do not provide information about the ethnic composition of specific workplaces. However, as our data provide the advantage of such workplace-specific information, we apply the same definitions of worker concentration and ownership patterns to the particular workplaces where immigrants earn their livelihoods.

IMMIGRANT CATEGORIES AND WORKPLACE TYPES

Canada's immigration policy, like those of many traditional immigrant-receiving states, defines three principal categories of entry, or immigration categories: family, economic, and refugee. Family immigrants are defined by Citizenship and Immigration Canada as permanent residents who are sponsored by a relative who is a citizen or permanent resident. Family sponsors have to agree to support their family members economically for between three to ten years to avoid creating a financial burden on the government (Satzewich 2007).

Economic immigrants are made up of two broad groups: skilled workers and business class immigrants. Skilled workers are selected for their ability to participate in the labour market and to establish themselves economically. They are assessed on selection criteria that stress education, language ability and skilled work experience. Business class immigrants are selected for their ability to establish themselves economically through entrepreneurial activity, self-employment, or individual investment (Citizenship and Immigration Canada 2007). The investor and entrepreneur subcategories require a substantial transfer of funds as a precondition of acceptance. Entrepreneurs are expected to establish or buy a business that will create at least two full-time jobs for non-family members, and investors must demonstrate a given net worth and invest a set amount (\$400,000 in 2004) in a Canadian fund for five years (Fleras and Elliott 2007).

Economic immigrants are assessed on a point system for permanent residence eligibility. Points are awarded for criteria that are deemed to enhance the applicant's chances of contributing economically and of integrating socially, including their education level, fluency in one of the official languages,

work experience, age, whether they have already arranged employment, and adaptability. Among the criteria considered under "adaptability," points are given to applicants who have relatives in Canada, signifying the government's belief in the value of local social capital for assisting integration. However, only 37% of economic immigrants in our sample had relatives in Canada before immigrating.

The final category of immigrants is refugees, who are accepted under humanitarian and legal obligations (Fleras and Elliot 2007). This includes government-assisted refugees, who are pre-selected by government officials; privately sponsored refugees, who are supported by agencies, individuals, clubs or religious groups which are obligated to provide support for them for up to ten years; and successful refugee claimants, who are not sponsored but apply for and are granted refugee status (Fleras and Elliott 2007; Citizenship and Immigration Canada 2007). Among refugees in our sample, 65% had relatives in Canada before immigrating.

States reveal different priorities in the type of immigrants they accept (Borjas 1999). Out of the immigrants accepted to Canada each year, approximately 60% are economic, 25% are family immigrants, and 15% are refugees (Citizenship and Immigration Canada 2007). By contrast, in the United States, about 65% of immigrants generally come through family reunification, while economic immigrants make up about 10-20% (Batalova 2009). Unlike the United States, Canada does not have a lottery system to allow low-skilled individuals a chance to immigrate without being sponsored by a family member. All immigrant classes are expected to have resources at their disposal to help them adapt. While most refugees receive support either from the government or a private sponsor, other immigrants are largely divided into those seen as having social capital and those seen as having human or financial capital.

Immigrant admission policies and immigration categories influence the likelihood that immigrants will integrate socially and economically in their ethnic community or outside of it. Economic immigrants are more likely to speak an official language, facilitating the development of friendships with those outside their ethnic group (Chiswick 1994; Chiswick et al. 2006). They are also likely to have higher levels of education, which helps give them a common professional identity with non-ethnics of similar professional background (Chiswick et al. 2005a; Nee and Sanders 2001). This immigration category also represents the immigration authority's assessment of individuals' economic suitability for the dominant labour market. Those who are selected are seen as meeting the current needs of the mainstream economy. We can view the economic immigrant category as capturing this otherwise unmeasured assessment of economic fit. Together these factors suggest that economic immigrants will have a higher chance of finding non-ethnic work.

Refugees are also likely to interact with members of the host society through their sponsorship by the government or by private individuals or agencies. Because many are sponsored by charities, religious groups, and other host country organizations, refugees may be settled in diverse areas of the host country away from other immigrants (Krahn et al. 2003; McIsaac 2003). The size of refugee communities is also likely to be limited by political conditions, both difficulties that individuals may have in escaping oppressive foreign regimes and political obstacles toward the acceptance of large numbers to a host country. These factors may lead to increased economic opportunities.

Family immigrants, and policy shifts toward family reunification, are seen by some as producing diminishing economic returns for the nation (DeVoretz 1995; Frances 2002; Borjas 1999). Such arguments imply that human and financial capital facilitate immigrant economic integration more effectively than

social capital. One reason why family immigrants may contribute less to the nation's economy is that the majority are the spouses, parents, and grandparents of their sponsors. While many do enter the labour market, age and gender norms may limit their labour market options. Others may have immigrated without the intention of working, but rather to assist their family by caring for children and households, or to peacefully live out their retirement close to their family. Family immigrants on average have the lowest official language skills (Chiswick et al. 2006). This can affect friendship patterns and limit the potential for working in the majority economy. It is likely that those who choose to enter the labour market have a better chance of finding ethnic work due to their pre-existing family connections. And since the ethnic economy has more low-paying jobs that require lower levels of education (Catanzarite and Aguilera 2002; Nee et al. 1994), categories of immigrants with lower educational attainment, such as family immigrants, will likely be sorted more toward the ethnic economy. These combined factors suggest:

H1: Immigrant category influences the choice of ethnic or non-ethnic work, with family immigrants more likely than other categories of immigrants to initially enter the ethnic workplace.

At the same time, Nee, Sanders, and Sernau (1994) find that the immigrants they studied tended to move away from the ethnic economy over time and that the boundaries between sectors of the labour market are fairly porous. This also suggests:

H2: Family immigrants will transition into the non-ethnic workplace over time, but are still less likely to do so than other categories of immigrants.

WORKPLACE TYPE AND ETHNIC NETWORK PORTFOLIOS

A longitudinal framework permits direct examination of how workplace type impacts the development of social networks over time. Much of the literature in this area focuses on the role that ethnic networks and bounded solidarity play in helping immigrants find and keep jobs, and less on the role that workplace types play in the future development of social networks. The dense ethnic networks in which the ethnic economy is embedded help immigrants generate social capital to acquire resources and start businesses, providing jobs for other co-ethnics (Portes and Sensenbrenner 1993). Participating in the ethnic economy and having ethnic social ties are seen as mutually reinforcing, and may account for why people remain in the ethnic economy even if those positions are not advantageous in the long run. Immigrants working in the ethnic economy interact less with non-ethnics and are less likely to obtain information about events outside their community (Fong and Ooka 2002). Many assume that developing connections outside the ethnic group will lead to employment in the open economy, but these assumptions are seldom tested.

We use the concept of an ethnic network portfolio (ENP) to define different types of social networks with regard to ethnic composition. The network portfolio concept was originally discussed in terms of the composition of an individual's mixture of strong and weak ties (Seidel et al., 2000), but has also been applied to other forms of network composition such as ethnicity (Seidel et al., 2007). An individual's social network can be understood as similar to a financial investment portfolio. In a common investment portfolio, investors have different percentages of cash, bonds, and equities. Some people may invest in greater amounts of stocks, while a more risk-averse person may invest 100% in cash or bonds; many people fall somewhere in between. The

same concept can be applied to how an individual invests in his or her social network. With the ENP concept, the question is how an individual diversifies his or her social network based on the ethnic characteristics of social ties.

Some individuals have a *diversified* ENP, which is an ethnically diverse social network. Others have a *non-diversified* ENP, or ethnically homogeneous network, which is categorized by two sub-types: *similar* and *different*. A *similar non-diversified* ENP is composed primarily of others sharing the focal actor's ethnicity, while a *different non-diversified* ENP consists mainly of individuals of a single ethnic group that differs from the individual's own. For convenience, we refer to the *similar non-diversified* ENP as a co-ethnic network portfolio, while a non-ethnic network portfolio includes both *diversified* ENPs and *different non-diversified* ENPs.

Since we are interested in how workplace trajectories affect the ENP, changes to the ENP over time are more important than its overall composition, as this focuses on what social ties the immigrant adds within a specific period. For this reason, in this paper, we focus on the ethnic composition of new friendships. In keeping with our portfolio analogy, we can think of these as investments in a co-ethnic or non-ethnic network portfolio.

A co-ethnic network portfolio provides different opportunities from a non-ethnic portfolio (McGuire 2000; Bacharach et al. 2005). In her study of Mayan immigrants to Houston, Hagan (1998) illustrates the negative consequences over time of investing in a co-ethnic network portfolio. Mayan women who become tightly encapsulated in ethnic networks through continuing private-household domestic work are disadvantaged compared to Mayan men who have more diverse social connections with the non-immigrant community through work, neighbourhood, and recreation. Those weak ties provide the

men with information about new job opportunities, while Mayan women's pool of economic resources diminishes over time.

Scholars often discuss social networks as channels for individuals to obtain information about job opportunities (Granovetter 1973; Petersen et al. 2000; Fernandez and Sosa 2005; Fernandez and Fernandez-Mateo 2006). Many scholars of network homophily argue that individuals' social network formation is influenced by the social composition of their surroundings and activities (Feld 1982; McPherson and Smith-Lovin 1987). We similarly argue that those immigrants who work in an ethnic workplace spend more time interacting with co-ethnics, and are thus more likely to form ethnic ties. McPherson and Smith-Lovin (1987) also suggest the concept of "choice homophily", where individuals are attracted to others of similar social characteristics beyond the naturally occurring probabilities of individuals' surrounding social compositions. This suggests:

H3: The choice of ethnic or non-ethnic work influences investments in ethnic network portfolios, with ethnic jobs leading to new ethnic ties and non-ethnic jobs leading to non-ethnic ties.

ECONOMIC OUTCOMES OVER TIME

Pathways of immigrant incorporation have a temporal element by definition. While some models focus on inter-generational change, those concerned with the experiences of first-generation immigrants inherently recognize that economic and social incorporation occur over time, particularly as immigrants move from one economic sector to another. Nee, Sanders, and Sernau (1994) advance the literature by gathering retrospective employment history data for Asian immigrants in Los Angeles. Yet longitudinal data are generally preferable to retrospective data, which are frequently subject to memory bias (Moss

and Goldstein 1979; Menard 2008). For instance, it is more likely that people will have faulty memories of the ethnic composition of their workplaces as significant time passes than they will about recent positions.

Changes from the early stages after immigration to periods when immigrants are relatively more settled are also important to examine in light of Portes and Jensen's (1987) assertion that their enclave hypothesis "never claimed that perennial confinement within an ethnic community would be the road to economic parity. The hypothesis simply stated that, for *newly arrived immigrants*, participation in a pre-existing ethnic economy can have positive economic consequences, including a greater opportunity for self-employment [italics added]." While it is not clear how these authors define "newly arrived," they nonetheless make a temporal argument about early entry into an ethnic workplace leading to positive later transitions, including higher rates of entrepreneurship. To test such ideas, we must examine the differential returns to distinct pathways of immigrant employment, both for new arrivals and in the longer term.

Part of the return to human capital obtained from a job is the nature of the match between an individual's skills and the demands and rewards of the job. Newly arrived immigrants likely to have fewer contacts, foreign credentials, and language difficulties, may find jobs that are a good match for their skills more easily within the ethnic economy. Those who move directly into the open labour market may be relegated initially to jobs that are a poor match for their skills:

H4: Initially after arrival, ethnic workplaces offer greater income returns to human capital than jobs new immigrants find in the open labour market.

Even if ethnic jobs provide an immediate income advantage, immigrants who find jobs through the open labour market should eventually catch up, particularly if they are well suited to the labour market. Research suggests that immigrants have the potential for upward economic mobility, particularly from the lower economic segments (Bean et al. 2004). It appears that Asian immigrants in Los Angeles eventually gravitate away from the ethnic economy, and reduce their reliance on ethnic networks for job seeking, in an effort to improve their job prospects (Nee et al. 1994). We argue that immigrants who work in non-ethnic jobs, even if they are less financially rewarding immediately, reap more benefits from diversifying their social capital and eventually move to positions with higher earnings:

H5: Over time, non-ethnic workplaces will offer immigrants greater income returns to human capital than ethnic workplaces.

Diversifying a social network leads to new sources of information, experiences, and opportunities. Networks are conduits of unique information, and past network studies have warned of the potential danger of being over embedded in networks where the focal actor cannot gain access to new information, experiences, and opportunities due to the homogeneity of information offered, and have called for the importance of diversification (e.g. Granovetter 1973; Uzzi 1999). While ethnic minorities may be attracted to developing homophilous ties due to the valuable resources of social support, non-homophilous network ties should yield more diverse information and opportunities (e.g. Mollica et al. 2003). Thus we argue that immigrants reap more economic benefits from diversifying their social capital regardless of workplace type:

H6: The development of new non-ethnic ties will offer immigrants greater income returns than the development of new ethnic ties.

DATA AND METHODS

We utilized the restricted-access micro-level data of the Longitudinal Survey of Immigrants to Canada (LSIC) dataset from Statistics Canada,⁶ which is well suited to addressing our research questions. The LSIC's target population is immigrants aged 15 and above who arrived between October 1st, 2000 and September 30th, 2001. This target population is approximately 169,400 individuals. Individuals who applied for immigrant status from within Canada are not part of this target population. This helps focus the data on immigrants' experiences when they first arrive. The sampling frame comes from the Field Operation Support System of Citizenship and Immigration Canada, which is the administrative database that contains all permanent resident immigrants.

Since recent immigrants are an extremely mobile population, Statistics Canada followed a rigorous procedure to track and locate the respondents. Case files were forwarded to regional offices and then to interviewers. Respondents were tracked via federal and provincial databases, such as provincial health care records, and were verified by date of arrival and birth date matching. Potential respondents that were not found by the interviewers were forwarded to a regional tracing team that utilized multiple methods to locate them, including electronic phone books and administrative files from Citizenship and Immigration Canada.

The survey data include interview waves conducted six months, two years, and four years after arrival. From the original Wave 1 sample of 12,040 immigrants, 9,322 were re-interviewed in Wave 2, and 7,716 were re-interviewed

⁶ Statistics Canada established the Research Data Centre Program to allow affiliated researchers access to restricted-access micro-level data in several of its survey datasets. A condition of using these micro-level data is that data outputs are screened to ensure that cell sizes are large enough to prevent identification of individual respondents. In some cases, this requires that categories be combined to reduce small cell size in specific analyses or that small categories be omitted from published results.

in Wave 3. In our sample, we only include immigrants who are present in all three waves of data, who are between the ages of 18 and 65 (to focus on workplace experiences), and are categorized as the principal applicant. For our population of interest, this provided a dataset of 4,451 respondents. We analyze and discuss the sample attrition further below.

Statistics Canada conducted the interviews in 15 languages, and the majority of interviews were done face to face, with the remainder conducted by phone. Each respondent was assigned a weight designed by Statistics Canada, in order to represent the entire target population accurately. This final weight is built on a series of cascading adjustments that takes into account design issues, non-response, resolved case adjustment, and post-stratification. We utilized Stata BRR bootstrapping procedures with proportional weighting using this set of final replicate weights. This allows us to generalize results to the entire population of immigrants who were principal applicants between the ages of 18 and 65, that arrived during October 2000 through September 2001, and remained in the country four years after arrival.

Dependent Variables

We use the following dependent variables at each interview wave: Workplace Type, Ethnicity of New Friends, and Personal Income. One advantage of our study is that we can measure the ethnic composition of the respondent's co-workers directly, rather than relying on the ethnic group's workplace concentration in a particular geographical area, economic sector or industry (Portes and Jensen 1989; Sanders and Nee 1987; Logan et al. 2003). Our respondents were asked how many of the people they worked with were of the same ethnic or cultural group as them. We first determined whether a respondent worked at an income-producing job or business in each wave. For those who did in-

come-producing work, we defined those in an Ethnic Workplace as 1) the self-employed and 2) employees who said that “all” or “most” of their co-workers were of the same ethnic or cultural group as themselves.⁷ All others were coded as being in a Non-ethnic Workplace. Typically, we distinguish between those who worked for others in an ethnic workplace and those who were self-employed. A limitation of our data is that information about the co-ethnicity of employees’ supervisors was only gathered in Waves 1 and 2; therefore, we include this as an independent variable in the appropriate waves. When respondents had more than one job during the interview period, we coded Workplace Type for the respondent’s current or most recent job. In the event of two or more current positions or multiple jobs that ended on the same date, we selected the respondent’s “main job,” as determined by LSIC.⁸

For the variable Ethnicity of New Friends, respondents were asked a series of network questions about new friends made in a variety of ways (detailed below) since the last interview, or since arrival for Wave 1. Those who made any new friends were subsequently asked: “how many of these new friends belong to the same ethnic or cultural group as you?”. We categorized those who answered “all of them” or “most of them” as having made Mainly Ethnic New Friends (coded as 0), and those who responded “about half of them,” “few of them,” or “none of them” as Mainly Non-ethnic New Friends (coded as 1).

For our final dependent variable, Personal Income, we take the log of the respondent’s personal income from all sources plus one,⁹ for those who had

7 This definition operationalizes Light et al. (1993)’s definition of an ethnic workplace, but also includes workers in employment niches, as defined by Logan, Alba & Stults (2003).

8 In the event of multiple jobs with the same characteristics, LSIC used the following ordered criteria to select the main job until the tie was broken: 1) the job involving more hours worked, 2) the job involving more weeks worked, and 3) the position listed first on the job roster.

9 Since we cannot take the log of 0, we add 1 to each respondent’s income to accommodate for models that make use of respondents with no income. This is a common practice to avoid the difficulties of zeroes in

earned an income from working at a job or business in the twelve months prior to the interview, or since arrival in the case of Wave 1.

Independent Variables

Immigration category is coded as a set of dummy variables based upon respondents' CIC-determined immigration categories: Family, Economic, and Refugees and others.¹⁰ The Economic category consists of skilled workers and business class immigrants and is used as the reference group in our models.¹¹ In our population of interest, 30.7% of respondents are Family immigrants, 62.4% are Economic, and 6.9% are Refugees and Others.

We also include several dummy variables related to the distinct forms of ethnic economies. We include a measure for Self-employed, based on a question indicating whether the respondent is self-employed or works for others in the selected job. At Waves 1 and 2, employees were asked if their supervisor is of the same ethnic or cultural group as themselves. We include a dummy variable *Employed with an Ethnic Supervisor* for these two waves.

When using our *Ethnicity of New Friends* variable as an independent variable, we use a categorical variable that includes *No New Friends*, *Mainly Non-ethnic New Friends*, and *Mainly Ethnic New Friends*, with the latter as our omitted category. Similarly, when using *Workplace Type* as an independent variable, we define it with three categories: *Not Working*, *Working in Non-ethnic Workplace*, and *Working in Ethnic Workplace*, with the latter category omitted.

data (Bartlett, 1947).

10 "Refugees and Others" includes the CIC sub-categories Government Sponsored Refugees, Privately Sponsored Refugees, Other Refugees Abroad, and Other Immigrants Abroad. The latter category includes post-determination refugee claimants, deferred removal orders, humanitarian and compassionate cases, sponsored humanitarian and compassionate cases outside the family class, and people granted permanent resident status based on public policy considerations (Citizenship and Immigration Canada 2009).

11 Respondents categorized as part of a "Provincial Nominee" program were included in Economic Immigrants.

The respondents' age at each wave is coded continuously in years. Married is measured as a binary variable at each wave and is coded 1 for married and common-law marriage, and 0 for divorced, separated, never married and widowed. Speaks Official Language is coded in Waves 1 and 2 as 1 when Quebec-based respondents report speaking French well or very well, or when respondents outside Quebec report speaking English well or very well, and 0 otherwise.

Job Class variables are coded at each wave for the respondent's current/most recent job (or their "main" job in the event of two or more current/most recent positions) using the LSIC Employment Roster & Details data. We recoded the LSIC job classifications into three groups, ranging from 1 to 3 (with "not working" coded as a 0), based on occupational status.¹²

We use a series of dummy variables to indicate if the respondent made new friends in the following ways during each interview wave: through relatives or friends in Canada; through relatives or friends in the old country; through an ethnic association or club; from a religious activity; from an English-as-a-second-language or French-as-a-second-language class; from other classes; from work; or from other means.

Other static independent variables measured at the first interview include:

1. Female – a binary variable coded as 1 for women and 0 for men;
2. Ethnicity – a set of dummy variables based upon ethnic backgrounds: Chinese, South Asian, Black, Filipino and Southeast Asian, Latin American,

¹² High status occupations, coded as 3, include managerial and professional occupations. Medium status positions, coded as 2, include technical, sales, administrative support, and military occupations. Low status jobs, coded as 1, include service occupations; precision production, craft, and repair occupations; and operators, fabricators and labourers. This division follows research using the occupational category groupings provided in the variable documentation of U.S. Census micro-level data (AUTHOR A 2008, 2009). The coding map is available from the authors upon request.

Korean and Japanese, Arab, and Other Ethnicities (White is the reference category);

3. Education – a set of dummy variables for High School, College Level, Bachelor's Degree, and Graduate Degree (Less than High School is the reference category);
4. Contacts in Canada before Arrival – a dummy variable coded as 1 if respondents had relatives and/or friends residing in Canada before they immigrated;
5. CMA Ethnic Concentration – a continuous measure of the proportion of co-ethnics in the census area that they arrive in. To create this variable we obtained information from the 2001 Census on the ethnic composition of Census Metropolitan Areas and Census Agglomerations (Statistics Canada, 2001) and tabulated the proportion of each landing CMA/CA that shares the focal respondent's ethnicity.

Sample Attrition

Our study represents the population of immigrants that arrive and remain for at least four years, rather than all immigrants. Given the sample attrition between waves, we ran a binary logistic regression to determine what influenced the likelihood of disappearing from the dataset between Wave 2 and Wave 3.¹³ Because of the considerable efforts and strategies to track and locate immigrants, we assume that people who drop out of the data set do so primarily by leaving the country. We found that immigrants who are married and who are older have significantly lower odds of dropping out of the

13 It was not possible to run a similar analysis for the likelihood of disappearing between Wave 1 and Wave 2 because the original Wave 1 data file containing the full sample was not provided by Statistics Canada; Wave 1 variables were included in the Wave 2 data file for those who remained in Wave 2.

survey. Several of the factors that lead to immigrants' disappearance suggest that many leave because they fail to achieve economic or social integration. Groups that may experience discrimination are more likely to drop out of the survey: the group with the greatest increase in the odds of disappearing is Blacks (relative to Whites), with a 57% increase. South Asian immigrants also have 33% greater odds of disappearing. Those self-employed in Wave 2 are also more likely to drop out of the survey in Wave 3 (our multivariate results support the notion that this group may experience an economic disadvantage during Wave 2). We recognize that many immigrants have, and do exercise, the option of return as a strategy in the face of social and economic barriers.

The Relationship between Human Capital and Immigrant Category

We have suggested that economic immigrants are selected primarily on the basis of their human capital, while family immigrants are selected because of their social capital. This presents the question of whether immigrant categories are so strongly associated with these concepts that they cannot be effectively distinguished and analyzed separately. Certainly economic immigrants do have very different skill profiles overall than family immigrants and refugees, yet we found that there is still notable diversity in human capital measures within each immigration category. Members of each immigrant category are represented at every outcome level in the Education, Job Class, and Speaks Official Language variables.¹⁴ Just as there are economic immigrants who do not speak English or French and have less than a high school education, there are family immigrants and refugees with graduate degrees.

¹⁴ Among the economic immigrants, there are both skilled workers and business class immigrants at every level in these variables.

In Wave 1, for example, official language proficiency for economic class immigrants is highest at 82%, followed by family class at 50%, and refugees and others at 36%; although the differences are apparent, they do not represent complete association. By wave 3, these numbers improve to 87%, 63%, and 61% for each immigrant category respectively. In short, differences do exist between immigrant categories in terms of human capital; this is not surprising since it is a key evaluation criterion for the admission of economic immigrants. However, the three immigrant categories receive sizeable representation across the range of each human capital component. There are likely still unobserved labour market suitability differences between the visa categories above and beyond the observed human capital factors. These differences are captured by the dummy variables included for each visa category.

Models

We begin with descriptive analysis of immigrants' transitions between Not Working, Self-employment, being Employed in an Ethnic Workplace, and being Employed in a Non-ethnic Workplace. We then present multivariate analysis with sets of weighted regressions for the dependent variables, each starting with Wave 1, followed by Wave 2, and Wave 3. Therefore, each dependent variable is predicted three times, once per wave, using a comparable set of independent variables. We update some time-varying independent variables for each wave, as appropriate. For example, we control for marital status in Wave 2 when predicting a dependent variable in Wave 2. Other static variables, such as Immigrant Category, do not change across waves, and we use the answer supplied in Wave 1. Where independent variables change across waves, indicators such as *W1*, *W2*, and *W3* are placed before coefficients in the tables. Some independent variables are lagged by one wave where appropriate. For

example, our analysis of being in a Non-ethnic Workplace (Table 3, left side) in Wave 2 uses independent variables for Mainly Non-ethnic New Friends made in Wave 1. Unfortunately the archival data do not report information at the time of arrival, so the Wave 1 models cannot be lagged comprehensively. We ran the Wave 2 and 3 models using non-lagged data, and the results were not substantively different.

DESCRIPTIVE RESULTS

To understand the patterns in how immigrants move from one type of workplace to another over time, we present descriptive transition tables for Workplace Type (Table 1); and we use proportional weights to have our sample represent our population of interest. However, due to Statistics Canada's privacy restrictions, we are unable to include table cells where the unweighted sample size is below 10 cases. Therefore, we can only display data for family immigrants and economic immigrants, and must omit rows or columns featuring cells with too few cases.¹⁵ This means that overall percentages in the various quadrants of Table 1 cannot be directly compared when the rows or cells present are not consistent. We therefore present, in the text below, the weighted numbers in the table and draw out and calculate specific comparisons that can be made.

Table 1 shows the workplace transitions of family and economic immigrants from Wave 1 to Wave 2 (a and c) and from Wave 2 to Wave 3 (b and d). The data reveal that out of all immigrants working for someone else (i.e. not self-employed), a larger proportion of family immigrants participate in ethnic workplaces compared to economic immigrants in all waves, including Wave

¹⁵ As a result, some margin percentages for Wave 2 differ slightly across transition tables.

1, which supports H1 and H2. In successive waves, about 38%,¹⁶ 33%, and 27% of such family immigrants are in ethnic workplaces, compared to around 18%, 13%, and 11% of economic immigrants, respectively.¹⁷ Also in support of H2, the ratio of family immigrants in a non-ethnic workplace to those in an ethnic workplace increases over time (around 1.60 in Wave 1; 2.03 in Wave 2; 2.65 in Wave 3), but it also remains consistently lower than the ratio for economic immigrants (around 4.53 in Wave 1; 7.03 in Wave 2; 8.05 in Wave 3),¹⁸ who show much greater movement into the open economy over time. The percentage change in this ratio for family immigrants is around 27% $[(2.03-1.60)/1.60]$ from Wave 1 to 2 and 30% $[(2.65-2.03)/2.03]$ from Wave 2 to 3. For economic immigrants, these figures are around 55% and 15% respectively. This suggests that at the four-year mark, economic immigrants' workplace trajectories plateau and stabilize to a large degree, while family immigrants are still gradually moving into non-ethnic workplaces, revealing their slower movement into the open economy.

Analysis of the transitions in Table 1 from ethnic to non-ethnic workplaces reveals a considerable difference between family and economic immigrants. If we look at the proportions of employed immigrants that start in an ethnic workplace and either stay there or transition into a non-ethnic workplace across waves, around 33% $[1782/(1782+3564)]$ of family immigrants transition from an ethnic to a non-ethnic workplace from Wave 1 to Wave 2; of such family immigrants in Wave 2, 39% $[2189/(2189+3487)]$ transition into

16 These proportions are calculated from Table 1 by dividing those employed in an Ethnic Workplace by the sum of those employed in an Ethnic Workplace and those employed in a Non-ethnic Workplace for each wave, e.g. for family immigrants in Wave 1, $[5346/(5346+8542)]=38\%$.

17 Because some rows with small cell counts are omitted, these figures are slightly over-reported with the exception of the figures for family immigrants in Wave 2 and economic immigrants in Wave 3 (since these calculations are based on a full set of cells). However, since the omitted cells are so small, they provide little alteration to the final proportion reported (less than 0.5%). These cells typically represent self-employed family immigrants and those that transitioned out of the workforce. We assure that the overall scope and trend of these figures remains consistent with and without the cells omitted in this table.

18 The reasoning in the above footnote applies to these figures as well.

TABLE 1: TRANSITIONS BETWEEN WORKPLACE TYPE, BY IMMIGRANT CATEGORY, % (N)

		WAVE 2				WAVE 3			
		Not working	Self-employed	Ethnic workplace	Non-ethnic workplace	Not working	Self-employed	Ethnic workplace	Non-ethnic workplace
A) FAMILY IMMIGRANTS		WAVE 1		WAVE 2		WAVE 2		WAVE 3	
		Not working	Self-employed	Ethnic workplace	Non-ethnic workplace	Not working	Self-employed	Ethnic workplace	Non-ethnic workplace
				Total				Total	
Not working		7.39% (1433)	20.98% (4068)	28.37% (5501)	Not working	20.52% (5541)	0.80% (216)	1.70% (459)	4.40% (1189)
Self-employed					Self-employed				
Ethnic workplace		18.38% (3564)	9.19% (1782)	27.57% (5346)	Ethnic workplace	1.70% (459)	1.20% (324)	12.91% (3487)	8.11% (2189)
Non-ethnic workplace		6.89% (1337)	37.16% (7206)	44.06% (8542)	Non-ethnic workplace	3.00% (811)	1.20% (324)	5.01% (1351)	39.44% (10649)
Total		32.67% (6334)	67.33% (13055)	100% (19389)	Total	25.23% (6811)	3.20% (865)	19.62% (5298)	51.95% (14028)
ECONOMIC IMMIGRANTS		WAVE 2		WAVE 2		WAVE 2		WAVE 3	
		Not working	Self-employed	Ethnic workplace	Non-ethnic workplace	Not working	Self-employed	Ethnic workplace	Non-ethnic workplace
				Total				Total	
Not working		3.80% (1885)	3.00% (1488)	25.30% (12549)	Not working	1% (533)	0.70% (373)	0.70% (373)	5.31% (2822)
Self-employed					Self-employed	5.61% (2982)	0.90% (479)	0.70% (373)	1.50% (799)
Ethnic workplace		1.20% (595)	4.80% (2381)	13.50% (6696)	Ethnic workplace	3.70% (1970)	4.10% (2183)	4.10% (2183)	5.61% (2982)
Non-ethnic workplace		1.90% (942)	4.10% (2033)	61.20% (30353)	Non-ethnic workplace	11.21% (5964)	4.30% (2290)	4.30% (2290)	66.57% (35411)
Total		6.90% (3422)	11.90% (5902)	100% (49597)	Total	11.21% (5964)	9.81% (5219)	9.81% (5219)	78.98% (42014)

the non-ethnic economy in Wave 3. For such economic immigrants, however, 61% transition from an ethnic to a non-ethnic workplace from Wave 1 to 2, and 58% from Wave 2 to 3. This is even more transition from the ethnic to non-ethnic economy than was found by Nee, Sanders and Sernau (1994) in their study of Asian immigrants in Los Angeles, supporting their argument of porous boundaries between these labour markets. However, our data also show that immigrant category matters and economic immigrants are much more likely to transition from an ethnic to non-ethnic workplace than family immigrants.

Looking at immigrants that start in a non-ethnic workplace and either stay there or transition to an ethnic workplace across two waves, only 16% [$1337/(1337+7206)$] of family immigrants who are employed in a non-ethnic workplace in Wave 1 move to an ethnic workplace in Wave 2; this figure decreases to 11% for the Wave 2 to Wave 3 transition. Out of all comparable economic immigrants, even fewer move from non-ethnic to ethnic work: 7% [$2033/(2033+27378)$] from Wave 1 to 2, and 6% from Wave 2 to 3. Immigrants in both categories tend to be more likely to move toward non-ethnic workplaces and stay there, although economic immigrants seem to be more successful at it.¹⁹

Very few immigrants are already self-employed by Wave 1. By Wave 2, however, approximately 7% [$3422/49597$] of economic immigrants who are working are self-employed (compared to 12% in an ethnic workplace and 81% in a non-ethnic workplace). This increases to 11% by Wave 3 (with 10% in

¹⁹ It is more common for immigrants who are not employed at one wave to move into a non-ethnic workplace in the next wave than for them to move into an ethnic workplace. Out of the group that goes from not working in Wave 1 to being employed in Wave 2, 74% [$4068/(1433+4068)$] of family immigrants and 86% [$9176/(1488+9176)$] of economic immigrants move into employment in a non-ethnic workplace. From Wave 2 to 3, 72% of family immigrants and 88% of economic immigrants move into a non-ethnic workplace.

an ethnic workplace and 79% in a non-ethnic workplace). Among family immigrants, remarkably few become self-employed in any wave. Even in Wave 2, the percentage self-employed is too small to report. By Wave 3, only 4% [865/(865+5298+14028)] of family immigrants who are working are self-employed (compared to 26% in an ethnic workplace and 69% in a non-ethnic workplace). The higher rates of entrepreneurship among these economic immigrants is not completely surprising; some economic immigrants are selected because of their ability to start a business, showing how government policies and officials select immigrants based on their suitability for the demands of starting a business.

Of all economic immigrants who start out in an ethnic workplace in Wave 1 and continue working, approximately 9% [595/6696] of them move into self-employment in Wave 2, while only 3% [942/30354] of economic immigrants who start out in non-ethnic workplaces transition into self-employment from Wave 1 to 2. It is most common, however, for economic immigrants who are not working in Wave 1 and find work in Wave 2 to become self-employed in Wave 2, at 15% [1885/12548] of those not working at Wave 1. From Wave 2 to 3, economic immigrants who start out self-employed and remain working are most likely to stay self-employed (72% [2982/4154] of economic immigrants self-employed at Wave 2). Of economic immigrants not working in Wave 2 that later work in Wave 3, those that enter into self-employment represent a relatively large proportion (14% [533/3728] of those not working). Among those who are employed, however, it is slightly more common to move from an ethnic workplace into self-employment (8% [479/5644] of those in an ethnic workplace) than from a non-ethnic workplace (5% [1970/39671]). Among family immigrants from Wave 2 to 3, it is only slightly more common to transition to self-employment from an ethnic workplace (5% [324/6460]

of those in an ethnic workplace at Wave 2) than from a non-ethnic workplace (2% [324/13136]) or from not working (3% [216/7406]). Although self-employment is fairly uncommon, especially among family immigrants, ethnic workplaces are generally more likely to serve as a jumping off point for self-employment than working in a non-ethnic workplace.

MULTIVARIATE RESULTS

Workplace Type

The left side of Table 2 shows logistic regressions predicting, among those who are working, being employed in a non-ethnic workplace, relative to an ethnic workplace.²⁰

The coefficients in Table 2 are displayed as odds ratios. Coefficients less than 1 signify a decrease in the odds of the respondent being in that outcome category, relative to the omitted category, and coefficients greater than 1 represent the percentage increase in the odds of the respondent falling in that category.

Our regressions reveal that family immigrants who do work are less likely to enter a non-ethnic workplace initially after landing and in Wave 3, providing additional support for H1. There is some support for H2 in that refugees and others' workplace sorting does not significantly differ from that of economic immigrants, revealing that they also transition into the non-ethnic workplace faster than family immigrants. In Wave 2, family immigrants do not differ from the other immigration categories, suggesting perhaps that some do dabble in

²⁰ Due to the limitations of analysis software for logistic regressions on data with this replicate weight structure, we report the pseudo-R² from an unweighted model. The F-statistic presented is from the weighted model.

TABLE 2: LOGISTIC REGRESSIONS PREDICTING NON-ETHNIC WORKPLACE AND MAINLY NON-ETHNIC NEW FRIENDS, WAVES 1-3

	Non-ethnic Workplace in:			Mainly Non-ethnic New Friends in:		
	WAVE 1	WAVE 2	WAVE 3	WAVE 1	WAVE 2	WAVE 3
Age during	W1: 0.986* (0.00626)	W2: 0.970*** (0.00594)	W3: 0.997 (0.00663)	W1: 0.997 (0.00415)	W2: 0.986*** (0.00383)	W3: 0.998 (0.00439)
Female	1.049 (0.140)	0.894 (0.106)	1.381* (0.182)	1.344** (0.122)	0.977 (0.0959)	1.259* (0.126)
Married during	W1: 0.838 (0.142)	W2: 0.895 (0.137)	W3: 0.697* (0.123)	W1: 0.680*** (0.0706)	W2: 0.683*** (0.0789)	W3: 0.828 (0.0971)
Ethnicity:						
Chinese	0.490 (0.245)	0.906 (0.490)	0.337* (0.172)	0.326** (0.117)	0.324** (0.124)	0.519 (0.196)
South Asian	0.989 (0.490)	1.208 (0.664)	0.353* (0.180)	0.975 (0.350)	0.764 (0.289)	0.840 (0.317)
Black	3.407 (2.276)	2.328 (1.526)	0.505 (0.308)	2.216 (0.944)	1.301 (0.580)	1.496 (0.682)
Filipino and Southeast Asian	1.126 (0.629)	1.353 (0.803)	0.457 (0.262)	0.413* (0.171)	0.496 (0.210)	0.597 (0.252)
Latin American	3.586 (2.799)	2.027 (1.351)	1.055 (0.825)	3.112** (1.339)	1.974 (0.876)	1.376 (0.644)
Korean and Japanese	0.275* (0.172)	0.461 (0.282)	0.127*** (0.0759)	1.114 (0.478)	0.698 (0.315)	0.779 (0.349)
Arab	2.379 (1.611)	3.625 (2.441)	0.426 (0.261)	2.059 (0.828)	1.456 (0.618)	2.262 (1.007)
Other Ethnicity	2.987 (1.951)	1.657 (1.048)	0.433 (0.258)	1.252 (0.515)	0.730 (0.318)	1.137 (0.486)
Immigrant Category:						
Refugees and Others	1.213 (0.384)	1.419 (0.385)	1.062 (0.283)	1.823** (0.333)	0.861 (0.157)	1.445* (0.261)
Family Immigrants	0.571*** (0.0903)	0.796 (0.128)	0.582*** (0.0924)	1.312* (0.157)	0.774* (0.0936)	1.165 (0.143)
Education:						
High School	1.671* (0.402)	1.249 (0.305)	1.162 (0.272)	1.341 (0.283)	1.451* (0.265)	1.336 (0.279)
College Level	2.251** (0.554)	2.003** (0.489)	1.459 (0.328)	1.932** (0.386)	2.042*** (0.375)	1.783** (0.358)
Bachelor's Degree	2.729*** (0.660)	2.311*** (0.561)	1.631* (0.378)	1.424 (0.294)	1.525* (0.275)	1.614* (0.327)
Graduate Degree	4.369*** (1.174)	3.133*** (0.834)	1.618 (0.415)	2.089*** (0.436)	1.804** (0.358)	1.496 (0.321)
Job Class during	W1: 1.061 (0.0867)	W2: 0.840* (0.0640)	W3: 0.944 (0.0812)	W1: 1.142** (0.0521)	W2: 1.025 (0.0488)	W3: 1.100 (0.0584)
Speaks Official Language during	W1: 1.832*** (0.235)	W1: 1.966*** (0.258)	W2: 1.573*** (0.215)	W1: 2.260*** (0.241)	W1: 1.645*** (0.168)	W2: 2.043*** (0.241)
CMA Ethnic Concentration	0.904 (0.667)	1.286 (1.022)	0.247 (0.185)	2.461 (1.298)	1.244 (0.700)	1.478 (0.813)
Contacts in Canada before Arrival	0.950 (0.198)	0.750 (0.132)	1.126 (0.209)	0.861 (0.109)	1.230 (0.154)	0.994 (0.130)
Hours Worked during	W1: 0.995 (0.00309)	W2: 0.989*** (0.00319)	W3: 0.993 (0.00375)			
No New Friends during		W1: 0.775 (0.129)	W2: 0.914 (0.240)		W1: 1.714*** (0.210)	W2: 1.730** (0.335)
Mainly Non-ethnic New Friends during		W1: 1.156 (0.151)	W2: 1.202 (0.151)		W1: 3.027*** (0.274)	W2: 3.393*** (0.317)
Not Working during		W1: 1.680** (0.331)	W2: 1.106 (0.267)		W1: 1.876*** (0.336)	W2: 1.801** (0.390)
Non-ethnic Workplace during		W1: 3.495*** (0.644)	W2: 3.298*** (0.622)		W1: 1.631** (0.268)	W2: 1.503* (0.277)
Employed w/ Ethnic Supervisor during		W1: 0.438*** (0.0823)	W2: 0.324*** (0.0639)		W1: 0.907 (0.169)	W2: 0.904 (0.193)
Self-employed during		W1: 0.273*** (0.0958)	W2: 0.102*** (0.0310)		W1: 1.869 (0.650)	W2: 1.259 (0.353)
New Friends through: Friends/Relatives in Canada during				W1: 0.628*** (0.0578)	W2: 0.689*** (0.0601)	W3: 0.599*** (0.0572)
Friends/Relatives in Old Country during				W1: 0.419*** (0.0491)	W2: 0.692 (0.0712)	W3: 0.630** (0.0904)
Ethnic Association during				W1: 0.818 (0.127)	W2: 1.131 (0.196)	W3: 1.199 (0.201)
Religious Activity during				W1: 0.683*** (0.0768)	W2: 0.738** (0.0773)	W3: 0.708** (0.0763)
ESL/FSL Classes during				W1: 1.145 (0.137)	W2: 0.834 (0.101)	W3: 1.043 (0.207)
Other Classes during				W1: 1.369* (0.190)	W2: 1.397*** (0.162)	W3: 1.891*** (0.265)
Work during				W1: 1.618*** (0.163)	W2: 1.524*** (0.139)	W3: 2.303*** (0.231)
Other during				W1: 1.146 (0.0970)	W2: 1.056 (0.0869)	W3: 0.867 (0.0760)
Constant	1.922 (1.375)	4.609* (3.510)	6.598** (4.803)	0.245** (0.125)	0.377 (0.206)	0.106*** (0.0610)
Unweighted Pseudo R ²	0.134	0.227	0.271	0.161	0.186	0.205
Observations	2350	3063	3214	3787	4114	3724
F-Test	9.962	16.81	18.47	20.19	18.86	18.75

the non-ethnic workplace for a brief period of time before reverting back to the ethnic economy.²¹

The models reveal other significant patterns related to these processes. Having worked in a non-ethnic workplace in a previous wave greatly increases the odds of working in a non-ethnic workplace in subsequent waves, suggesting path dependence. Not working in Wave 1 also leads to higher odds of work in a non-ethnic workplace in Wave 2, relative to working in an ethnic workplace in Wave 1.

Both being self-employed and being employed with an ethnic supervisor in one wave reduce the odds of working in a non-ethnic workplace in the subsequent wave. Immigrant entrepreneurs are particularly unlikely to switch into the non-ethnic workplace over time, and the decrease in their odds from Wave 2 to Wave 3 suggests greater stability in their workplace types.

The ethnic concentration of the CMA and having friends or relatives in Canada before immigration has no impact on the odds of working in a non-ethnic workplace.²² Higher education and proficiency in an official language tend to increase the odds of immigrants being in a non-ethnic workplace, rather than an ethnic workplace, through all waves. There are no significant differences between non-ethnic and ethnic workplace in terms of a respondent's job class, except for in Wave 2, where higher job classes are associated with the ethnic workplace. This lends further support to the notion that the non-ethnic workplace has greater initial barriers to advancement. Interestingly, by Wave 3, women become more likely than men to work in a non-ethnic workplace. Finally, we note that Korean and Japanese immigrants are the only

21 To assess the differential change in the gap across the categories, we initially included an interaction between immigrant category and the lagged Non-ethnic Workplace variable, but found no significant results.

22 Working longer hours (in Wave 2) and age (in Waves 1 and 2) significantly reduce the odds of being in a non-ethnic workplace, but only by between 1-3%.

ethnic group more likely to initially enter an ethnic workplace upon landing than White immigrants. Although there are no ethnicity effects in Wave 2, by Wave 3 Chinese, South Asian, and Korean and Japanese immigrants are more likely to settle into their respective ethnic economies for work. In fact, the coefficient predicting non-ethnic workplace for Korean and Japanese immigrants drops even lower in Wave 3 than its already low level in Wave 1.

Ethnicity of New Friendships

Many immigrants do not make any new friends. Overall, 13% of the immigrants in our population of interest do not make new friends in Wave 1, but this pattern is associated with immigrant category. 25% of family immigrants and 7% of economic immigrants do not make any new friends within 6 months of arrival.²³ The right side of Table 2 shows logistic regression models predicting, for those who did make new friends, the odds of making Mainly Non-ethnic New Friends, compared to Mainly Ethnic New Friends, in each wave.

The ethnicity of new friends that immigrants make does differ significantly across immigration categories. Refugees and Others are more likely than economic immigrants to make mostly non-ethnic friends in Wave 1 and Wave 3. This suggests that refugees' integration outside their ethnic community is facilitated early on by their sponsorship by the government or private groups. The pattern for family immigrants is more surprising. In Wave 1, family immigrants have significantly higher odds of making non-ethnic friends than economic immigrants; by Wave 2, however, they have significantly lower odds. This suggests that initially, after arrival, family immigrants are less enclaved within ethnic communities than subsequently, but also that economic

²³ Over the entire four-year survey period, only 55 respondents never make any friends.

immigrants may have difficulty developing non-ethnic ties shortly after they arrive.

Building mainly non-ethnic friendships in a previous wave leads to a similar pattern of new friendships in the next wave. While it is not surprising that those who made mainly non-ethnic friends in previous periods continue to do so, the striking finding is that those who made no new friends at all in an earlier period are more likely to make new non-ethnic friends than those who invested previously in ethnic friendships. Thus, patterns of early investment in ethnic friendships continue and self-reinforce going forward.

Supporting H3, the type of workplace in a previous wave plays a similar role to the type of friendships made. Immigrants who worked in a non-ethnic workplace in the previous wave have higher odds of making mainly non-ethnic friends in Waves 2 and 3. Yet, even those who were not working in the previous period still have higher odds of making mainly non-ethnic friends than those who were working in an ethnic workplace previously. Taking a job in an ethnic workplace significantly reduces the odds of developing ties outside the ethnic community, even more than not taking a job at all.

Neither being self-employed nor working in a job with an ethnic supervisor in a previous wave has any effect on the type of new friends one develops in Waves 2 or 3. In all three waves, there is no effect on the ethnicity of new friendships from the ethnic concentration of the CMA or having friends or relatives in Canada before arrival. However, people who make new friends specifically through their relatives or friends in Canada, and through contacts in their old country, are more likely to make mainly ethnic new friends. The same is true of those who make new friends through religious activities (e.g. church, synagogue, mosque) throughout all waves. Taking English- or French-as-a-second

language classes has no effect, but taking other (non-ESL/FSL) classes leads to making mainly non-ethnic friends in all waves. Making friends through work also leads to new non-ethnic friendships in all waves. Surprisingly, making new friends from an ethnic association does not affect the ethnicity of those friendships.

Human capital—as measured through education, job class, and language proficiency—also influences friendship patterns. Compared to those with less than a high school education, immigrants with a college level education, bachelor's degree or graduate degree are generally more likely to build new non-ethnic friendships. Speaking an official language increases the odds of making mainly non-ethnic friends in all three waves. A higher job class also elevates the likelihood of forming mainly non-ethnic friendships in Wave 1, but not subsequently.

Other background characteristics also play a role in the ethnicity of new friendships. Women are more likely to build primarily non-ethnic friendships in Wave 1 and Wave 3. People who are married are more likely to develop ethnic friendships throughout the first two years after immigration. There are also remaining ethnic differences that are not explained by other factors. While Chinese immigrants are initially less likely to develop non-ethnic friendships than Whites, they acquire statistically similar levels after the first two years. Filipinos and Southeast Asians are also more likely to form mainly ethnic new ties, although only in Wave 1. Latin Americans are the only ethnic group more likely than Whites to make non-ethnic friends, although only during the first wave.

Income

The final set of models, addressing H4, H5 and H6, use weighted linear regression to predict the logged personal income of respondents who earned any income through a job or business (Table 3). We present two models for each wave: the first with all our primary variables of interest, and the second with the addition of interactions between immigrant category and non-ethnic workplace (NEW), as well as interactions between immigrant category and self-employed. Logged incomes from the previous waves are used as independent variables in Waves 2 and 3.

Our primary independent variables of interest revolve around the respondent's workplace type and ethnic network portfolios. Our first model shows support for H4: being in a non-ethnic workplace, compared to an ethnic workplace, has a negative effect on income in Wave 1, the initial period after arrival. This would seem to suggest that, for newly arrived immigrants, ethnic workplaces have positive economic consequences relative to the open economy. However, after the interactions are included, this effect loses significance. Being employed with an ethnic supervisor has no effect on income during the first two waves when this variable is included.

H5 predicts that, over time, non-ethnic workplaces will offer higher incomes than ethnic ones. Although there are no immediate income gains for starting employment in a non-ethnic workplace, by Wave 2 the non-ethnic workplace is associated with higher incomes in the model containing the interaction terms. By Wave 3, the positive impact of the non-ethnic workplace appears in both models. These results at first seem to support H5.

However, upon closer inspection of the interactions between non-ethnic workplace and immigrant category, in the second model of Waves 2 and 3,

TABLE 3: OLS REGRESSIONS PREDICTING LOGGED PERSONAL INCOME, WAVES 1-3

	WAVE 1			WAVE 2			WAVE 3		
Age during	W1: 0.00185 (0.00288)	0.00182 (0.00288)	W2: -0.00417* (0.00206)	W3: -0.00446* (0.00207)	W3: -0.00258 (0.00178)	-0.00252 (0.00179)			
Female	-0.262*** (0.0576)	-0.262*** (0.0573)	-0.367*** (0.0428)	-0.364*** (0.0427)	-0.311*** (0.0326)	-0.307*** (0.0325)			
Married during	W1: -0.112 (0.0597)	-0.111 (0.0594)	W2: 0.0663 (0.0451)	W3: 0.113** (0.0451)	0.114** (0.0433)	0.114** (0.0433)			
Ethnicity:									
Chinese	-0.424 (0.333)	-0.422 (0.334)	-0.275 (0.170)	-0.266 (0.169)	-0.218 (0.184)	-0.218 (0.183)			
South Asian	-0.0697 (0.337)	-0.0694 (0.337)	-0.160 (0.168)	-0.153 (0.167)	-0.112 (0.182)	-0.112 (0.181)			
Black	0.00319 (0.381)	0.00759 (0.383)	-0.187 (0.198)	-0.169 (0.198)	-0.167 (0.212)	-0.167 (0.212)			
Filipino and Southeast Asian	-0.226 (0.367)	-0.225 (0.368)	-0.0699 (0.184)	-0.0546 (0.183)	-0.000435 (0.197)	0.00773 (0.196)			
Latin American	-0.256 (0.371)	-0.254 (0.372)	-0.185 (0.189)	-0.173 (0.189)	-0.199 (0.207)	-0.199 (0.206)			
Korean and Japanese	-0.293 (0.422)	-0.287 (0.425)	-0.0640 (0.205)	-0.0337 (0.204)	-0.325 (0.222)	-0.325 (0.222)			
Arab	-0.253 (0.375)	-0.250 (0.376)	-0.326 (0.197)	-0.306 (0.196)	-0.175 (0.208)	-0.175 (0.207)			
Other Ethnicity	-0.266 (0.373)	-0.260 (0.375)	-0.188 (0.200)	-0.173 (0.199)	-0.205 (0.207)	-0.184 (0.207)			
Immigrant Category:									
Refugees and Others	-0.198* (0.100)	-0.152 (0.183)	-0.410*** (0.0793)	-0.268* (0.119)	-0.252*** (0.0632)	-0.411* (0.162)			
Family Immigrants	-0.277*** (0.0792)	-0.241 (0.141)	-0.190*** (0.0493)	-0.0123 (0.0895)	-0.258*** (0.0466)	-0.0611 (0.0847)			
Education:									
High School	-0.0530 (0.145)	-0.0518 (0.150)	0.205* (0.0853)	0.224** (0.0862)	0.00223 (0.0766)	0.00223 (0.0761)			
College Level	0.0677 (0.138)	0.0725 (0.147)	0.133 (0.0800)	0.156 (0.0805)	0.0755 (0.0693)	0.0859 (0.0694)			
Bachelor's Degree	-0.120 (0.138)	-0.114 (0.147)	0.0891 (0.0863)	0.115 (0.0873)	0.0646 (0.0708)	0.0782 (0.0714)			
Graduate Degree	-0.0777 (0.144)	-0.0723 (0.152)	0.168 (0.0900)	0.190* (0.0902)	0.194** (0.0755)	0.200** (0.0763)			
Job Class during	W1: 0.340*** (0.0329)	0.340*** (0.0330)	W2: 0.212*** (0.0238)	W3: 0.163*** (0.0206)	0.163*** (0.0206)	0.163*** (0.0206)			
Speaks Official Language during	W1: -0.0103 (0.0626)	-0.00857 (0.0634)	W1: 0.102* (0.0414)	W2: 0.109** (0.0411)	W2: 0.0703 (0.0407)	0.0738 (0.0406)			
CMA Ethnic Concentration	0.108 (0.494)	0.111 (0.495)	-0.0911 (0.247)	-0.0674 (0.246)	0.0584 (0.262)	0.0695 (0.261)			
Contacts in Canada before Arrival	-0.0699 (0.0851)	-0.0706 (0.0851)	-0.0591 (0.0521)	-0.0586 (0.0523)	-0.00977 (0.0507)	-0.00516 (0.0505)			
Hours Worked during	W1: 0.0145*** (0.00240)	0.0145*** (0.00240)	W2: 0.0164*** (0.00107)	W3: 0.0145*** (0.00107)	0.0144*** (0.00101)	0.0144*** (0.00100)			
Logged Personal Income during	W1: 0.0536*** (0.00534)	0.0536*** (0.00534)	W2: 0.0472*** (0.00531)	W3: 0.0472*** (0.00531)	0.0472*** (0.00515)	0.0472*** (0.00515)			
No New Friends during	W1: -0.0368 (0.0611)	-0.0402 (0.0611)	W1: -0.0368 (0.0611)	W2: -0.135 (0.0615)	W2: -0.137 (0.0892)	-0.137 (0.0905)			
Mainly Non-ethnic New Friends during	W1: 0.0824* (0.0370)	0.0808* (0.0370)	W1: 0.0897 (0.0625)	W2: 0.189** (0.0698)	W3: 0.135** (0.0432)	0.237*** (0.0592)			
Non-ethnic Workplace (NEW) during	W1: -0.137* (0.0659)	-0.118 (0.0812)	W2: 0.0258 (0.0791)	W3: 0.0193 (0.0709)	0.0193 (0.0709)	0.0193 (0.0709)			
Employed w/ Ethnic Supervisor during	W1: -0.129 (0.0792)	-0.129 (0.0791)	W2: -0.254* (0.112)	W3: -0.245*** (0.0683)	-0.234** (0.0898)	-0.234** (0.0898)			
Self-employed during	W1: 0.113 (0.173)	0.147 (0.205)	W2: -0.160 (0.129)	W3: -0.160 (0.129)	0.156 (0.162)	0.156 (0.162)			
Refugees and Others X NEW during	W1: -0.0488 (0.194)	-0.0458 (0.140)	W2: -0.230* (0.0959)	W3: -0.271** (0.0862)	-0.271** (0.0862)	-0.271** (0.0862)			
Family Immigrants X NEW during	W1: -0.423 (0.377)	-0.423 (0.377)	W2: -0.135 (0.248)	W3: -0.135 (0.248)	0.0874 (0.154)	0.0874 (0.154)			
Refugees & Others X Self-employed during	W1: 8.080*** (0.439)	8.056*** (0.461)	W2: 8.764*** (0.238)	W3: 8.916*** (0.254)	8.804*** (0.260)	8.804*** (0.260)			
Family Immigrants X Self-employed during	W1: 0.181 (0.343)	0.182 (0.343)	W2: 0.339 (0.302)	W3: 0.301 (0.3278)	0.306 (0.3279)	0.306 (0.3279)			
Constant	16.92	14.52	42.93	38.91	43.00	39.23			
R ²									
Observations									
F-Test									

we find that for family immigrants, working in a non-ethnic workplace, rather than an ethnic workplace, actually reduces income. For refugees and other immigrants, working in a non-ethnic workplace has no incremental effect on income. These combined results lend support to H5, but not for all immigrant categories. Once the non-ethnic workplace/immigrant category interactions are included in the model, being part of a non-ethnic workplace does not translate into higher incomes for family immigrants. This finding suggests that the open economy creates barriers to long-term success for family immigrants. This is perhaps why family immigrants did not differ from economic immigrants in their likelihood of being in a non-ethnic workplace in Wave 2, while they were more likely to be in an ethnic workplace in Waves 1 and 3 (Table 2, left side). Family immigrants may have sampled the open economy and, finding it not a good fit, reverted back to the ethnic economy. In fact, in Waves 1 and 2, additional post-hoc analyses (not shown) reveal that when controlling for human capital, family immigrants in an ethnic workplace have no difference in income from economic immigrants working in a non-ethnic workplace. They do start to suffer an income penalty by Wave 3, however, suggesting that the relative advantages of working in a non-ethnic workplace take time to materialize for economic immigrants.

Is self-employment, then, a route to greater economic success for family immigrants if the open economy is not? The first model in Wave 1 shows that, on its own, being self-employed has no effect on income. By Wave 2 and 3, being self-employed in general leads to a lower income, relative to being an employee in an ethnic workplace. When we add the interactions between self-employed and immigrant category in the second models, the negative base effect for self-employment loses significance in Wave 2 but remains in Wave 3. The net effect of self-employment on income is thus neutral at best, and

negative at worst. The interaction terms, however, reveal a striking finding: although there is no effect in any wave for family immigrants who are self-employed, in Wave 3 refugees who are self-employed have an income advantage relative to refugees in an ethnic workplace. The main effects for refugees and family immigrants are negative; economic immigrants earn significantly more than refugees in general, and significantly more than family immigrants before the interaction terms are included. But self-employment is financially beneficial to refugees in the long-term compared to refugees who are not self-employed, although it provides no income benefits for family or economic immigrants.

Confirming H6, forming mainly non-ethnic new friends in previous waves leads to higher income levels in subsequent waves. With a coefficient around 0.08 in both waves, those who form new friendships mainly with non-ethnics earn around 8.3% higher incomes than their counterparts who develop mainly ethnic friendships. This echoes past scholars' contention that homogeneous networks that do not provide access to unique information and opportunities create a disadvantage (e.g. Uzzi 1999).

Several relevant control variables show statistical significance. Notably, while education has a positive effect on income in Waves 2 and 3, there is no effect in Wave 1. In Wave 2, those with a high school degree earn more than those without one. Those with graduate level degrees earn higher incomes in Waves 2 and 3 as well. This supports the idea that immigrants face barriers to getting their skills and qualifications recognized by Canadian employers, but it shows that those with significantly more schooling eventually do receive increasing returns to their higher education. Higher job class is also associated with higher incomes across all waves, although the coefficient steadily

decreases from wave to wave. Proficiency in an official language increases income in Wave 2 only.

Respondents' incomes from previous waves predict income in the current wave. As in the other models, neither the ethnic concentration of the CMA nor having relatives or friends in Canada before arrival has any effect. Female immigrants have lower incomes than males throughout all waves. Being married is also associated with higher income in Wave 3.

DISCUSSION AND CONCLUSIONS

Does the ethnic economy provide an alternate route to mobility for immigrants facing barriers that hurt them in the primary labour market? Our analysis shows that this central question in the sociology of immigration must be qualified by considering the pathways followed and barriers faced by different categories of immigrants. Immigrant category has an important influence on sorting immigrants into different labour market trajectories, and on financial returns for human capital investments. Family immigrants are less likely than economic immigrants to work in the open economy initially after arrival. Although they do transition into non-ethnic workplaces over time, they remain more concentrated in ethnic workplaces than other types of immigrants even four years after they arrive. Economic immigrants transition more frequently from the ethnic economy into the non-ethnic economy. Strikingly, when family immigrants do venture into the non-ethnic economy, they fail to achieve the same income gains as other immigrants, giving them incentives to continue working outside of it. The ethnic economy literature developed out of a concern that a dual labour market was developing – offering different pathways to integration inside and outside of the ethnic community. Our findings support

the existence of a dual labour market—one divided not just by entrepreneurs and employees, but by family immigrants and economic immigrants.

Immigrant entrepreneurship in particular has long been discussed as a potential path for immigrants whose skills and credentials may not be recognized in the mainstream economy to succeed economically. Our findings show that refugees are able to benefit from self-employment, relative to being employed in an ethnic workplace, although its benefits only pay off in the long term. For family immigrants facing barriers in the open economy, entrepreneurship is not an avenue to economic advancement, at least not within the first four years after they arrive in Canada. Nor do economic immigrants, including those who enter Canada as business class immigrants because of their ability to invest and create new jobs, reap financial rewards from self-employment. Although the literature tends to portray entrepreneurship as offering opportunities for higher returns for immigrants with capital or skills, entrepreneurial endeavours also entail considerable risk and those risks do not always pay off.

Social networks play an important role in how and where immigrants integrate. With the concept of ethnic network portfolios, we illustrate how immigrants invest in the nature of their social networks. There is considerable path dependence here, with investments in ethnic ties leading to the development of even more ethnic ties in the future and vice versa. Yet while many assume that investing primarily in non-ethnic ties will lead to future employment in a non-ethnic workplace, we found no evidence to support this assumption. Investment in a non-ethnic network portfolio produces economic benefits that are separate from movement into the open economy. A diversified ENP or a different non-diversified ENP, both forms of non-ethnic network portfolios, likely provide sources of new information, opportunities, and experiences that pay off no matter where an immigrant works.

Immigrants who arrive under economic, family, and refugee immigration categories differ in terms of their resources, their forms of capital, and their perceived suitability for contributing to a particular economy. Immigration policies largely sort them into distinct pathways of incorporation. In particular, while economic immigrants diversify their ethnic network portfolios, move into an open labour market, and typically stay there, family immigrants are more likely to become embedded within ethnic communities and workplaces and to face economic barriers to succeeding elsewhere. Refugees' relative success from entrepreneurship, compared to other immigrant categories, likely reflects the additional institutional and organizational support they receive from private sponsors or the government.

While a person with a purely economic perspective on immigration may take these combined results and suggest that family reunification and dense ethnic communities hurt the economic success of a host country's immigration policy, we feel this is an overly simplistic view. Many people immigrate for reasons other than economic advancement, and provide numerous forms of benefit to their host society. Even from an economic perspective, our data are unable to show the indirect economic benefits attributable to having a supportive family. For instance, if a grandparent immigrates to help care for children, this may improve the economic opportunities for the parent of the child, a benefit which would not be captured effectively through individual level analysis. Immigrants may also access social services and other forms of financial and emotional support from their ethnic communities. One thing we take away from the results is a healthy inquisitiveness about the impacts of family reunification that are not observable at the individual level. Future research incorporating differences between immigrant categories would benefit from viewing families as the unit of analysis.

Our study shows that immigrant categories, or the different types of immigrants selected by contemporary immigration policies, need to be factored into considerations of the economic benefits of the ethnic economy. It is not simply a matter of whether “immigrants” can achieve mobility through their ethnic communities to avoid the structural barriers in the primary labour market, or if the open economy provides them with greater advantages in the long term. Rather, certain immigrants face penalties in parts of the economy that other immigrants do not. Real structural barriers exist, preventing family immigrants who work in the non-ethnic economy from receiving the same returns to their human capital as economic immigrants. Immigrant policies, by sorting immigrants into different visa categories based on their resources and economic suitability, help to create these segmented trajectories of incorporation.

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