The fragility of bridging ties: Evidence from refugee sponsorship

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Abstract:

Friendships that cross the immigrant versus native-born divide play a central role in theories of immigrant assimilation. They provide access to resources and are a central aspect of what is often called structural assimilation. Whereas theoretical accounts generally take the formation of these ties to unfold gradually and following assimilation in other domains, we examine a case where refugee sponsorship provides social connections right upon arrival – before significant integration in other domains. Our analysis of a longitudinal survey of Syrian refugees in Canada shows that when refugee sponsorship bridges large social distances – the "sponsorship of strangers" – it leads to larger and more diverse friendship networks. But these additional friendship ties are fragile and quickly dissolve. Although we focus on the case of refugee sponsorship, our results speak to broader questions about the stability of cross-ethnic ties and the ability of policy interventions to durably affect social contexts.

International migration is famously driven by social networks; not just in the case of labour migration (Massey et al 1999) but also in the case of refugee migration (Koser and Pinkerton 2002, Arar and FitzGerald 2022). At the same time migration fundamentally re-shapes the social ties of migrants. While initially connected to friends and family back home, over time long-distance friendships weaken for most (Waldinger 2015) and as migrants become embedded in their places of immigration, they build social connections that help them solve everyday challenges, find jobs, and provide a supportive context for raising children (Zhou and Bankston 1994; Portes and Rumbeaut 2001; Park et al 2022) and more broadly embed them in the social lives of the destination communities (Lubbers et al 2021).

Of particular interest are the social ties that bridge the divide to the majority population. For one they may provide resources for getting ahead such as opening up access to high quality jobs (Brown 2006; Kalter and Kogan 2014; Lancee 2012; Lorenz et al. 2021; Bulled 2025). But friendship networks also matter for less tangible outcomes such as a sense of belonging and perceptions of others (Zhao 2025), are arguably an important precursor for intermarriage – a canonical indicator of assimilation (Alba and Nee 2003) and they are relevant in their own right. The degree to which friendship ties span ethnic boundaries is both an indicator and driver of blurring of ethnic boundaries and are associated with attitudes as argued by contact theory (Allport 1954) and shown in recent work on network structures of immigrants (Zhao 2025). Within migration research this is most clearly articulated in Gordon's synthesis of assimilation research which uses the concept of "structural assimilation" to refer to the embedding of migrants in co-ethnic social networks vs ties they have to the "mainstream" – which can foster a sense of common identity or "peoplehood" (Gordon 1964).

Yet some of the very reasons for why these social ties are thought to be so beneficial –

narrowing social distance between newcomers and the mainstream, accessing resources that may otherwise be out of reach – also means they are challenging to establish. The formation of social ties is to a large extent a function of the social contexts an individual is embedded in (Feld 1981, 1982; Fischer 1982; McPherson and Smith-Lovin 1987; Marsden 1990; Stauder 2008, 2014; Wimmer and Lewis 2010). In turn, participation in these contexts is heavily structured by socio-demographic characteristics such as education, age, occupational prestige, and, especially relevant for the case of immigrants, language, ethnicity, or religion – dimensions in what McPherson and Ranger-Moore (1991) called "Blau Space". In the case of migrants economic constraints, residential segregation, language barriers, and more generally lack of opportunity for encounters as well as preferences drives ethnic segregation of social interactions (Logan, Alba, and Zhang 2002).

So, if we can create contact opportunities would social networks follow? Not necessarily. Any social network not only depends on the formation of social ties but also their maintenance. Even if there is the opportunity to develop social ties that bridge social distances, are individuals able to – or do they want to – maintain these ties in the long term? While there is now a significant amount of research on the former question - how social context conditions the formation of ties across social boundaries (Kruse and Kroneberg 2019, Lescinsky and Pink 2019, Kroneberg Wimmer and Kruse 2021), the latter question, how durable ties are, has received less attention.

Using longitudinal data, we can examine not only whether cross-ethnic ties form, but also contribute to research that has examined the durability of friendships that span significant social distance and cross ethnic boundaries (e.g. Blau 1977; Neray, Copeland and Moody 2023; McPherson and Smith-Lovin 1987). While this research often draws on detailed network data, it generally is collected on a specific population – school-age children and, as a function of the data-

collection, examines only friendship networks within an institution (typically schools). We can contribute a more general case in the adult population and one where friendship ties are not contained within a closed institutional context.

The question of whether such cross-group ties can develop through sustained contact and how durable they are also has implications for a range of social policies and programs that try to engineer changes in social context whether by providing individual level links such as the refugee sponsorship program we examine, or similarly structured mentorship programs whether they concern migrants, prisoners re-entering society or programs that try to affect social context more broadly. A well-studied example of the latter are programs that do this by relocating families out of high-poverty neighborhoods into communities with more resources such as in the moving to opportunity (MTO) program or changing neighborhood composition (HOPE program). Here research has shown that many participants found it challenging to establish deeper ties in their new neighborhoods and continued to rely on social capital in their original neighborhoods (Rosenbaum et al. 2003). In turn the absence of deeper social ties in the new neighborhoods may have limited movers ability to take advantage of resources – to develop the kind of social capital that helps them "get ahead" instead of just "get by" (de Souza Briggs 1997). As summarized in an evaluation of the program "MTO families almost never `converted' a new location into significant new social resources. This thwarted hopes that relocation away from ghetto neighborhoods would generate better access to information about good housing, schools, jobs, and other opportunities" (de Souza Briggs et al. 2010, 133).

Our analysis examines a case where a social policy, a particular refugee sponsorship program in Canada, creates an opportunity structure for a quasi-randomly selected sub-set of refugees to build deep social ties that bridge significant social distance across many dimensions.

The focus of our analysis are refugees that arrived in Canada through a sponsorship program called the Blended Visa Office-Referred (BVOR) program where generally a group of Canadians support newly arrived refugees that they had no pre-existing connection with for the first 12 months in Canada. As we show, this type of "sponsorship of strangers" indeed defies the usual sorting of social interaction and creates opportunities for interaction that span large distances in social space – connecting individuals who, due to their social positions, would normally have a small probability of interacting. We compare these refugees to a group that is identical on background characteristics but that arrived without formal sponsorship (Government-Assisted Refugees or GAR). In addition, we also contrast them to refugees that had sponsors but where these ties often reflect pre-migration connections and co-ethnic ties (Privately Sponsored Refugees or PSR).

Our data comes from a two-wave nationally representative survey of about 2,000 Syrian refugees resettled to Canada between 2015 and 2018. The first wave of the survey was conducted in 2020, on average 3.6 years after our respondents had arrived in Canada thus 2.6 years after the sponsorship period (for those who were sponsored) had concluded. The second wave was finalized three years later in 2023. We find that private sponsorship (PSR), generally driven by pre-migration connections, was not associated with larger or more diverse social networks after the sponsorship had concluded, despite the fact that this group had pre-existing ties and significantly higher levels of education and host-country language facility. In contrast, the "sponsorship of strangers" (the BVOR program), whereby a quasi-random subset of refugees is matched with sponsors after migration, had significant effects on friendship networks. When we interviewed them in 2020 refugees in this group had more expansive friendship networks that were more diverse and less centered in the co-ethnic community – having more friends that were born in Canada and fewer born in Syria, and a higher number of friends who spoke one of the official

languages (English/French). But these additional friendships did not last. By the time we re-interviewed respondents in 2023, we see a convergence in friendship patterns across the three groups. Especially the inter-ethnic ties that were gained through sponsorship dissolved.

Thus, while those sponsorships that bridge what normally are large social distances are the ones that generate additional and more diverse friendship networks in the short to medium-term, these social relationships are also fragile, in many ways resembling cross-ethnic or cross-racial friendship networks that are generally less stable (e.g. Schneider, Dixon, and Udvari 2007). As we argue in the conclusion, one likely reason is that key conditions for lasting relationships, such as reciprocity and triadic closure (Martin and Yeung 2006; Neray et al. 2023) are generally not met. The very genesis of social ties arising from sponsorship makes them poor candidates for long-term friendship on both of those counts: by design sponsor-sponsored relationships are not reciprocal. The former very clearly provide assistance to the latter and in the case of formal sponsorship arrangements, the amount of resources sponsors commit is indeed substantial. Similarly, given refugees' recent arrival and in the case of inter-ethnic sponsorship and language barriers, it is unlikely that the friendship circles of refugees and sponsors that are not part of the co-ethnic / co-national community would overlap to a significant degree.

Thus, in the case of friendship networks, path-dependency, or cumulative divergence, where early differences in social networks will be maintained or even expanded may not exist. This contrasts with findings from other domains of assimilation where social conditions in early settlement indeed appear to have lasting consequences. Notably when examining labor market trajectories researchers have found that better starting points whether secured through advantaged legal status (Kreisberg 2019), due to social capital (Fuller 2015) or, as in the case of Canada, as a result of sponsorship (Kaida et al. 2020; Soehl and vanHaren 2023) can provide concrete and

lasting benefits. Yet, as we argue in the conclusion, even if social ties gained through sponsorship may not be durable (as) strong ties, they likely still deliver enduring benefits in terms of better jobs, language learning, and stronger sense of belonging. Potentially precisely because they connect individuals across large social distances – they are weak ties with their now proverbial strengths (Granovetter 1973).

Migration, Networks, Assimilation

A major shift in the theoretical conceptions of assimilation was the change from the thought of it as a process of "organic" absorption to one that conceptualizes it as (potential) change on a variety of dimensions. Assimilation is not necessarily a linear function of time but may be bumpy (Gans 1992) or move along different dimensions (for example, Portes and Zhou 1993; Stepick and Stepick 2010; Waters and Jimenez 2005). This then raises the question of the interrelations between these dimensions. For example, socioeconomic mobility may not depend on assimilation in other domains such as identification, or spatial assimilation and in fact as the segmented assimilation literature has argued, for some immigrants at least, socioeconomic mobility may mean resisting assimilation in other domains (Portes and Zhou 1993; Waters 1999).

One key question then is how the development of social ties to locals in the destination society, what Gordon called "structural assimilation," fits into these processes. While a sizeable body of research has taken social ties as an independent variable predicting for example labor market outcomes (Lancee 2012; Sanders et al. 2002) or out-group attitudes (Zhao 2025), in terms of treating social ties to the mainstream a distinct aspect of assimilation, Gordons' now more than 60-year-old conceptualization is still the most direct articulation and remains a major reference for research on the role of social networks in migrant incorporation (see Vacca et al 2024). To the

extent friendship ties to the mainstream are addressed in theoretical accounts of assimilation, their development is generally thought to be a consequence of change in other domains. An underlying assumption in these arguments is that large social distance inhibits the kind of social contacts between immigrants and members of the mainstream that allow for friendship ties to form. These social distances narrow only over time and especially across generations as immigrants enter the social spaces of the mainstream population (Alba and Nee 2003). As immigrants acquire language facility, move into more integrated neighborhoods and workplaces, they have opportunity to build social ties to those in the host society. For example, residential assimilation (in the US often proxied by suburbanization) is often seen as a key step in the assimilation process (Alba and Nee 2003, 29). These processes are thought to normally play out over extended periods of time and across generations which is also how they have been studied (Brown 2006, Massey et al. 1990, for an exception see Martinovic et al. 2011).

Other approaches explicitly frame these processes in terms of social boundaries that immigrants face and have articulated the role of institutions and the attitudes of majority populations in shaping not just social contact, but opportunities for minority members and formation of identities (Alba and Nee 2003, Wimmer 2008, Crul and Schneider 2010). Beyond probabilities of contact, social boundaries such as the degree of ethnic stratification in a particular social context (for example tracking and sorting in a school system) can either foster or dampen the possibilities for the formation of social ties and formation of social identities (Kruse and Kroneberg 2019).

Establishing and Maintaining Ties

In effect engineering contact between immigrants and members of the established

population, some refugee sponsorship programs alter the hypothesized time-order whereby social ties develop following acculturation, acquisition of host-country language, and assimilation in other domains such as the labor market or residential patterns. Thus, refugee sponsorship provides an opportunity to engage questions about the relationship between different dimensions of assimilation (Brubaker 2001; Gordon 1964; Yinger 1981). Can there be structural assimilation in Gordon's sense early in the settlement process, or are durable social ties to members of the majority society something that necessarily develops over longer periods of time and in conjunction with assimilation in a range of dimensions? Or to use the social boundary making approach – can the social context of refugee sponsorships create friendships that cross these boundaries or does the self-reinforcing logic of social closure reassert itself?

We argue that one key question that existing research does not consider enough in this regard is durability: whether any friendship ties will persist over the medium and long term, and lastingly shape the social networks of newcomers. For differences in initial social networks to matter in the long term, those ties need to be durable. As Granovetter (1995) argues, path-dependence in terms of social capital endowments arises when individuals can extend their network over time to more distant contacts. Conversely, if early contacts are not maintained then the ability to expand networks will be limited.

Existing work, much of it focused on friendship networks among schoolchildren, shows that "boundary crossing' relationships are more prone to dissolution than co-ethnic or same-race relationships (Hallinan and Williams 1987, 1989; Aboud, Mendelson, and Purdy 2003; Lee, Howes, and Chamberlain 2007; Oczlon et al. 2023), findings that are confirmed in research conducted in Canada (Schneider et al. 2007) and Germany (Jugert, Noack, and Rutland 2013). Exceptions appear in very close relationships within environments that foster these interactions

(Hallinan and Williams 1987) and once similarity on other dimensions is taken into account (Hartl et al. 2015; Graham et al. 2018). For example, recent work by Neray and co-authors (2023) shows that when friendships are embedded in a network of shared friends and are based on reciprocity, inter-ethnic friendships are as stable as intra-ethnic friendships.

But these conditions are hardly met in the case of sponsor to refugee relationships – especially where they cross ethnic boundaries. Reciprocity is one of the main characteristics of close and long-term social relationships (Blau 1964; Rusbult and Buunk 1993, Laursen and Hartup 2002) and research has shown that non-reciprocal relationships are unlikely to be maintained over the long-term (Gould 2002; Hallinan and Teixeira 1987). The sponsor-refugee relationship is highly unequal with the former providing non-trivial amount of aid and the power differential in these relationships is well documented (Stock 2019; Macklin et al. 2020). More importantly triadic closure – the principle that friends of friends should be friends – is another key condition for long-term maintenance of friendships (Block and Grund 2014; Leszczensky and Pink 2015; Moody 2001; Smith, Maas, and vanTubergen 2014; Martin and Yeung 2006). This is unlikely to be the case in sponsorship outside the ethnic community that bridges large social distances such as in the BVOR program where language barriers, religious differences, and broader differences in social circumstance will limit the embedding of sponsors in the social networks of refugees and vice-versa. In contrast, this kind of triadic closure is more likely to develop in cases where sponsors are members of the same ethnic community as the sponsored – as is often the case in private refugee sponsorship. It is worth highlighting the difference to typical migrant social capital here: these networks which pre-date and drive migration heavily "draw upon obligations implicit in relationships such as kinship and friendship" (Massey et al. 1993: 449). Linking whole communities in the origin and destination society, they are rife with triadic closure and friendships

are embedded in a lattice of mutual obligations with all the advantages and drawbacks this entails (e.g. Rosales 2020).

Maintaining ties may be especially challenging in the initial period of arrival where there is likely significant turnover in friendship networks. In this sense migrants and refugees may be one particular case of the reconfiguration of social networks during times of transition documented by social network scholarship which has shown that adjustment to new institutional settings and the obligations they generate can lead to rapid adjustment in friendship networks (Small et al. 2015).

In addition, sponsorship relations are not the only social setting where refugees forge interpersonal relationships. Religious community and religious institutions are examples of social foci that are independent from the sponsorship setting. In these social spaces newcomers can find refuge and social resources for building interpersonal relationships (Hirschman 2004). In that sense religious settings are an example of the community level social resources that all migrants have access to and that are derived from a wider, more diverse, but still bounded social circle (Park, Lai, and Waldinger 2022; DiMaggio and Garip 2011; Garip and Asad 2016) but that are independent of the individual-level ties established prior to migration as is the case of many privately sponsored refugees or those facilitated by sponsorship. Thus, all refugees, including those arriving without sponsorship and limited social networks in the host society, will develop social networks within and outside of their co-ethnic community over time.

Refugee Sponsorship in Canada

Canada resettles refugees through three distinct programs: Government-Assisted Refugees (GAR), Private Sponsorship of Refugees (PSR), and Blended Visa Office-Referred (BVOR). While all

refugees received permanent residency status upon arrival in Canada and are offered a set of social supports, there are significant differences when it comes to selection into resettlement and the structure of post-arrival support. Table 1 provides a schematic summary.

The GAR program resembles resettlement programs in other countries. Refugees are selected for resettlement by the United Nations High Commission for Refugees (UNHCR) using a set of vulnerability criteria. Those that accept a resettlement offer are provided with settlement support though government programs and (NGO) settlement organizations during their first 12 months in Canada.

While a range of countries now have refugee sponsorship programs or pilot projects, the Canadian Public Sponsorship of Refugees (PSR) was the model for many of these and has a few unique features. In the PSR program, groups of private individuals, generally under the umbrella of a religious or community organization, enter a formal agreement whereby they provide settlement assistance including financial support for a refugee or refugee family during the first 12 months in Canada. A key aspect of the program, widely seen as key to its success, is the "naming principle" that the sponsors get to choose the refugees they will be supporting. In most cases sponsorship groups decide to support someone (or a family) that is already known to at least one of the members (Labman 2019, Ch 5). Consequently, a large share of individuals admitted through the PSR program have family connections and other pre-existing social ties to Canada (Denton 2013; IRCC 2016; Krause 2020). Resembling the social networks that facilitate migration more generally, these ties tend to be with co-nationals – often within members of extended family or (local) origin community (Hynie et al. 2019; Rose 2019). Our own data show that 77% of Syrians who arrived in the PSR program knew other Syrians before arriving in Canada.

As a program that blends aspects of the public (GAR) and private (PSR) resettlement

programs, the blended visa office referred resettlement (BVOR) program was introduced in 2013. Like in the PSR program refugees are supported by sponsors during their first year though the sponsors and the government share the financial support. A key difference, especially for the purpose of our analysis is that there is no "naming principle." Refugees are not selected for resettlement by their future sponsors, but a small share of those selected by the UNHCR for resettlement to Canada is nominated for the BVOR program. Potential sponsors then select the refugees based on profiles with basic information about family size, age of family members, education, and work experience. Especially during the resettlement of Syrian refugees, the interest on the part of sponsors was very high and, given the small number of applicants in the BVOR program, they were generally matched within 24 hours (Labman and Pearlman 2018: 443). Thus, in contrast to private sponsorship where due to the naming principle there is often a pre-existing tie between refugee and a sponsor, the Blended Visa Office Referral Program (BVOR) truly is a "sponsorship of strangers": refugees and sponsors do not have pre-existing ties to one another (see Labman 2019, 112).

In turn, the different processes by which sponsors and refugees are matched results in very different profiles of the sponsor population. Previous research has pointed to the fact that those who get involved in refugee sponsorship fall in two distinct groups: those who sponsor friends and extended family, generally through the PSR program, and those who sponsor strangers through the BVOR program (Hyndman et al. 2021; Krause 2020; Labman and Pearlman 2018). Those sponsoring friends or extended family often themselves have a migrant or refugee background (Hyndman et al. 2021). In our survey only about a quarter of respondents in the PSR program reported that their sponsors were born in Canada and only about a third of those in the PSR program spoke an official language with their sponsors. In contrast, those that sponsor strangers in the

BVOR program are usually without migration background, highly educated and have substantial financial resources (Macklin et al. 2018). Information collected from our respondents aligns with these findings: over two thirds of those in the BVOR program report that their sponsors were born in Canada and 72% report communicating in an official language with them (despite lower levels of language ability than PSR respondents as we show below).

Clearly different types of sponsorship provide access to different types of social ties and to sponsors with different motivations. A large majority of those engaged in the PSR as well as those in the BVOR program are motivated by a generalized humanitarian impulse – "it is the right thing to do" (Macklin et al. 2018, 49). But for many in the PSR program there is also a more specific sense of obligation to help friends and family as clearly indicated by the fact that the PSR program is increasingly a tool for family reunification (Labman 2019, 158) and as a rich literature on the role of social networks in migration has shown, initial assistance in facilitating migration often generates a set of reciprocal expectations (Bilecen 2022; Lever-Tracy and Holton 2001, 97; Rosales 2020; Sienkiewicz 2017). We pick up the role these different motivations might play for the durability of any sponsor-refugee relationships in the conclusion.

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Table 1. Key characteristics of refugee admissions categories and key features of sponsors

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The policy goals of these different sponsorship programs are not clearly defined, and have shifted over time. Arguably one rationale of both sponsorship programs was to maintain or expand capacity for refugee resettlement under fiscal constraints by shifting services government normally

provides or finances to civil society. The PSR program was initially seen as a concession by the state to allow civil society to become engaged in refugee resettlement (Hathaway 1987), the program formalized existing ad hoc sponsorship initiatives in the mid 1970's. A key principle of the program was additionality – any resettlement done by private sponsors would be "over and above" government admissions rather than replacing them (Labman 2019, Ch 5) though it is unclear to what extent additionality has been maintained over the years. As shown above, the PSR program is heavily driven by social networks to a degree where it is often referred to as "family reunification by another name." The BVOR program in part was a response to this dimension of private sponsorship – an effort to re-assert some government control over the refugees that are to be sponsored (Macklin et al 2019).

Social Networks and Refugees Sponsorship

Whatever the exact intention, in outsourcing the provision of integration support to groups of citizens, refugee sponsorship programs de facto link refugees with members of the established population. A sizable literature has focused on different settlement trajectories of refugees in different admissions categories – especially on socioeconomic mobility (Mata and Pendakur 2017; Gericke et al. 2018; IRCC 2019; Kaida et al. 2020; Soehl and vanHaren 2023). Several qualitative studies primarily explore the sponsor-refugee in their initial stages (Hanley et al. 2018; Hassan and Phillimore 2020; Labman and Cameron 2020; Reyes Soto and Phillimore 2020; D'Avino 2022), but we have little research on how sponsorship shapes social networks beyond the formal sponsorship period.

The one-year period of sponsorship provides a social context for the formation of social ties. It is worth pointing out that sponsorship is not an individual effort but generally done by

groups of people who in turn may involve secondary members of their friendship circles in particular aspects. The frequency of meetings between refugees and their sponsors dwindles once the formal sponsorship period concludes (Lanphier 2003). Moreover, when more enduring connections are established, they are often characterized as familial or kinship bonds rather than genuine friendships (Ali et al. 2022). Many sponsors expressed appreciation for the families they sponsored but mentioned they did not actively engage in social activities with them or have frequent encounters (Macklin et al. 2020). In other instances, paternalistic attitudes, cultural and religious differences, and language barriers were identified as impediments to forming enduring social connections between sponsors and refugees, particularly when sponsors were from outside the co-ethnic community and there were no pre-existing ties in place (Hanley et al. 2018; Hassan and Phillimore 2020; Labman and Cameron 2020; Reyes Soto and Phillimore 2020; D'Avino 2022).

Although development of friendships is by no means a guaranteed outcome, when sponsors engage actively with refugees, these connections can evolve into informal relationships that ultimately transform into friendships (Drolet and Moorthi 2018; Ali, Zendo, and Somers 2022). To estimate the effects of sponsorship we compare measures of friendships networks along several dimensions including size, and the composition in terms of language, religion and place of birth, contrasting those who arrive without formal sponsorship (GARs) to those with private sponsorship (PSR) and those who were sponsored through the BVOR program by people they had no pre-existing connection with.

Data

Our analysis is based on a nationally representative survey of Syrian refugees that resettled in

Canada between 2015 and 2018. Using administrative records, Immigration, Refugees and Citizenship Canada (IRCC) reached out to one member of randomly sampled households by e-mail inviting them to participate in the survey. Where no e-mail was available, outreach was done by phone.[1] Respondents could take the survey online or over the phone either in English, French, or Arabic.[2] Those who participated in the first wave were re-contacted between April and August of 2023, on average, three years after they had been interviewed for the first time. In our analysis we use all participants who in the first round had completed at least 70% of the survey, resulting in a total sample size of 1,973 participants, of which 1,320 had been admitted through the PSR, 492 through the GAR, and 161 through the BVOR program. Of these we were able to re-contact 855 participants (about 43%), of which 577 had been admitted through PSR, 212 through GAR, and 66 through the BVOR program. Importantly, we did not find significant differential attrition rates between both waves in terms of arrival category.[3]

Table 2 summarizes key demographic and pre-arrival characteristics of the respondents disaggregated by arrival category. Clearly the different processes of selection into refugee resettlement generate distinct refugee populations: most privately sponsored refugees that were named by their sponsors have pre-existing ties to Canada while few of those in the GAR and BVOR program (selected by the UNHCR) do. Reflecting the resources that enable these connections, those in the PSR program have much higher levels of education and knowledge of official languages than those selected by the UNHCR. As the existing Syrian population in Canada,

[1] The research protocol was approved by [redacted for peer-review] under protocol # XXX

[2] Since very few respondents opted for French in the first wave of the survey, the second wave was offered only in English and Arabic.

[3] The re-interview rate of 43% includes those who did not provide contact information in the first wave of the survey and thus could not be contacted. The response rate among those we were able to re-contact is 55%. This rate of attrition is not uncommon in longitudinal studies following immigrants, especially shortly after their arrival. The Longitudinal Survey of Immigrants to Canada (Chui 2003) had an average re-interview rate of 63% after a 4-year period (Chui 2003) while the New Immigrant Survey (NIS) in the United States had a re-interview rate of 45.5% between the 2007 and 2009 waves of data collection (Massey 2011).

a disproportionate share of those in the PSR program are Christian while those admitted in the GAR/BVOR category are almost all Muslim.

+++ Table 2: Demographic and socioeconomic characteristics by program of entry +++

As noted above, in terms of selection to resettlement to Canada the BVOR and GAR program are identical – it is only after resettlement that a quasi-random subset is matched with sponsors in the BVOR program. Consequently, GARs and BVORs are virtually identical in all pre-migration characteristics with only a few exceptions. The BVOR group has a higher share of women and a lower proportion of individuals who were self-employed in Syria. Administrative data from IRCC show that the difference in gender is due to random variation in survey responses and while we don't have reference data for pre-migration employment, we suspect that these are random variations in response rates rather than systematic differences between the BVOR and GAR populations. There are some differences when it comes to post-migration settlement outcomes that likely are effects of the sponsorship programs. The BVOR program was not available for re-settlement to Quebec; the small share of BVOR respondents we observe moved there after the sponsorship period ended. While government assisted refugees were predominantly resettled to larger cities and metropolitan areas where there is a higher density of settlement service providers, a higher share of BVOR respondents live in smaller towns with 100,000 respondents. We account for these differences in our regression models by including a Quebec province and locality size controls. Using summary statistics from administrative data we calculated post-stratification weights to match our respondents by age, gender, education, and admission category to the Syrian population resettled to Canada between 2015 and 2018.

Dependent Variables: Co-Ethnic and Inter-Ethnic Measures of Social Networks

To enumerate respondents' friendship networks, the surveys first asked respondents how many close friends they have in Canada with response options ranging from zero to seven or more. A first set of follow-up questions then asked about the general composition of these friendship circles in terms of language and religion. The exact formulation and response options for these questions were tailored, based on how many friends a respondent stated they had in the first question. For those with less than four friends, the survey asked respondents about the exact numbers but for those with four or more friends, the survey asked respondents to provide estimates of the share of their friends that were of a particular characteristic (e.g. speak English/French) with seven answer options provided that ranged from "None" to "All". We use this information to calculate an estimate of the number of friends in each of the categories by multiplying the number of total friends that a participant reported in the first question by the share of friends belonging to each characteristic, represented by assigned values: None(0), Almost none (0.16), A few (0.33), About Half (0.5), Most (0.67), Almost All (0.83), All (1). Since we are principally interested in the size of different types of friendship networks rather than their composition per se, we chose this measure instead of the share of friends from each group to be able to compare the friendship composition of individuals who reported having different numbers of close friends in the first question. For instance, a participant with two friends, of whom only one speaks English/French, has a higher share of friends in that language group compared to an individual who reported having six friends, with "A few" speaking English/French (.50 vs .33). Yet, when we multiply the share by the number of friends, we discern that the former has only one (2 x .50) friend proficient in an official language, while the latter possesses two ($6 \times .33$) – a statistic that more adequately describes their friendship networks for our purpose.

A second follow-up question asked detailed questions about place of birth of the (up-to) three closest friends, with Syria, Canada, 'another country in the Middle East' or 'somewhere else' as answer options. We add the number of friends by country or region of birth for each respondent. Table 3 provides detailed summary statistics of each of these variables.

+++ Table 3: Descriptive statistics of friendship networks +++

Control Variables

All models include controls for standard demographic variables: age, gender, years of education, household size, and number of children, as well as respondent's religious affiliation and previous employment in Syria. As mentioned, we also control for the province of Quebec and the size of the city or locality of residence. To account for differences in settlement and acculturation trajectories we include number of years spent in Canada and whether the respondent is proficient in a Canadian official language (English or French). To account for pre-existing networks in Canada we include two binary variables indicating whether the respondent knew any Canadians or Syrians in Canada prior to arrival. Finally, all models include a control for phone survey responses as opposed to those recorded online. Our second-wave data analyses include a binary variable indicating whether the respondent moved cities between survey waves to examine whether changes in friendship networks can be partly explained by residential mobility.[4]

Analysis

[4] We code respondents as having moved city variable if they reported a different ZIP Code of residence between waves 1 and 2 that is further than 60 miles away (> 1hr commute). Sensitivity analysis was conducted by expanding and lowering the 60-mile distance threshold between ZIP Codes.

In a first step we model each survey wave separately to test for differences in the terms of size and composition of friendship networks between respondents belonging to different refugee arrival categories on average 3 and 6 years after their resettlement. All models include the control variables described in the subsection above. We use linear regression to model the estimated number of friends by language spoken (English/French or Arabic) and the estimated number of friends by religion. Since the total number of friends is top coded in the survey at "Seven or more", and the number of friends by country of birth is top coded at "Three", we use censored Poisson regression for these two dependent variables.

In the second step of our analysis, we exploit the longitudinal aspect of our data by limiting our sample to those respondents that participated in both waves and use the change in all outcome variables between waves 1 and 2 as the dependent variable. We conduct a sensitivity analysis by re-estimating all change score models with wave 2 responses as dependent variables and controlling for the wave 1 response values. Although item non-response is limited, we use chained multiple imputation in all our models to minimize bias from missing data and maintain sample size.

Results

Figures 1 and 2 provide means for our dependent variables by admissions category from the first wave of the survey – on average about 3.6 years after arrival and 2.6 years after the end of the sponsorship period. Figure 1 shows the average number of friends on the censored scale and clearly shows that sponsorship by non-coethnics in the BVOR program provides a boost in friendship networks. While government assisted (GAR) and privately sponsored (PSR) refugees have about 3.7 friends on our scale, those that were matched with sponsors in the BVOR program have 4.2 friends – on average, half a friend more than the other two groups – a difference that is statistically

significant at the .05% level.

When combing this information with the reported share by language spoken and religion as described above, we see that the difference is due to the number of friends that speak one of the official languages in Canada – English or French. While those matched with sponsors in the BVOR program have about 2 friends who speak official languages, that number is less than 1.5 for the other two groups. This difference is statistically significant at the .001% level. But looking at the overall friendship networks there doesn't appear to be a tradeoff whereby having more friends that speak official languages comes at the expense of friendships within the co-ethnic community: we do not see significant differences in the number of friends that speak Arabic or that are of the same religion. In other words, it appears that sponsorship by non-coethnics can facilitate early access to majority-language networks, without eroding co-ethnic or religious ties.

Turning to the distribution by country of birth among the three closest friends we again see that those in the BVOR program have more friends born in Canada about 0.84 whereas the other two groups have fewer than 0.52 – a difference that is again statistically significant at the .001% level. Since in this question the friendship circle we ask about is clearly limited to the three closest friends, we do in fact see a tradeoff and those that arrived through the BVOR program have fewer friends born in Syria (1.2 versus 1.5 for the other two refugee admissions categories). These initial patterns suggest that while broader networks can expand without substitution, the closest friendship circle may be more constrained, with inter-ethnic ties forming at the expense of co-ethnic ones.

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Figure 1: Number of close friends and estimated number of close friends by language

spoken and religion

Figure 2: Three closest friends by country of birth

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Our regression analyses confirm these findings and clarify that they are not due to any compositional differences between the different admissions categories. Since BVORs are selected in the same way as GARs and essentially constitute a quasi-random subset of this population, the BVOR vs. GAR comparison (the bold top row of our regression tables) provides the most credible estimate of the effect of sponsorship on social ties, with minimal bias from unobserved differences. The second row reports coefficients and standard errors for the PSR vs. GAR comparison, while the third row presents those for the BVOR vs. PSR individuals. While these last two comparisons are affected by selection differences between the groups, they remain informative for understanding how outcomes for GAR and BVOR individuals differ to those in the PSR program, who likely had pre-arrival connections.

All models include the full set of control variables; for brevity, we omit these coefficients from the tables but provide the complete models in the appendix. Table 4 presents linear regression models for the estimated number of friends according to their mother tongue and religion. Table 5 and the first column of Table 4 also present results from Censored Poisson regressions, reported as incidence rate ratios (IRRs). An IRR compares the incidence rates between the group studied and the reference category. Values above 1 will indicate a higher incidence while those below 1 reveal a lower incidence of friendship formation among each admissions category.

Confirming our bivariate results, table 4 shows those sponsored through the BVOR program by non-coethnics to have larger friendship networks than the other two groups of refugees (an incidence rate of 1.19), though differences are statistically significant only at the 0.05% level.

The difference in predicted counts shows that when holding all else constant, those in the BVOR program have a little over half a friend more than those in the PSR or GAR programs (see appendix Table A1 showing predicted counts by program of entry for each of our dependent variables). Contrasts are starker when turning to those who speak an official language at home, where crossing social distance is greatest compared to simply having Canadian-born friends. The OLS regressions show that on average those sponsored through the BVOR program have an additional 0.78 friends that speak English or French compared to those without sponsorship and 0.65 more friends than those with private sponsorship ($p<0.001$). We find no statistically significant differences between those in the BVOR and the PSR programs in this regard. In contrast to the findings for language spoken, we see no clear differences in the religious composition of friendship networks.

Turning to the regression analysis of the closest friends by place of birth (Table 5), our analysis confirms that those in the BVOR program have more Canadian-born friends than those without sponsorship or those that were sponsored privately. Those in the BVOR program developed Canadian-born friendships at a 1.62 times higher rate ($p<0.001$) than GARs. In other words, adjusted for covariates we expect a refugee in the BVOR program to have 0.84 Canadian-born friends out of their three closest friends, those in the PSR program 0.52 and those without sponsorship (GAR) 0.63 (see appendix Table A1).

When it comes to the number friends born in Syria, we see the same pattern albeit in reverse. Overall, BVOR and PSR individuals have fewer Syrian-born friends, than those who came without sponsorship in the GAR program (an IRR of 0.77, $p<0.01$ and 0.88, $p<0.05$ respectively) while the difference between BVOR and PSR is only marginally statistically significant (an IRR of 0.89, $p<0.1$). Adjusted for covariates we expect a refugee in the BVOR program to have 1.22 Syrian-born friends out of their three closest friends, those in the PSR program 1.56 and those

without sponsorship (GAR) 1.46.

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Table 4: Number of friends and number of friends by language spoken and religion (Survey Wave 1)

Table 5: Closest friends by place of birth (Survey Wave 1)

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Do these friendships persist?

To examine whether these differences persist, we limit our sample to participants that were present in both rounds of the survey and specifically look at responses that were recorded during the second wave, on average between 5 and 6 years after the sponsorship period had concluded, roughly three years after the first wave. This comparison across waves provides a rare opportunity to see whether the early advantages observed among BVOR refugees were sustained. As we show below, the evidence suggests they were fragile rather than enduring.

Figure 3 restricts the sample to those that participated in both waves and shows our measures of friendship networks in both waves. As seen in the top left panel, BVOR respondents have almost one fewer friend by the time we re-interviewed them as compared to the first wave (4.61 vs 3.65). In contrast changes in overall friendship numbers in the other two groups are small and not statistically significant. Disaggregating this by language we see that the entire decline in friendship numbers among BVOR respondents is due to the decline in the number of friends that speak official languages. Turning to the composition of the three closest friends by country of birth confirms these patterns. Those who were sponsored in the BVOR program lost on average 0.52 Canadian friends among their

closest three friends. While we see declines among GAR and PSR respondents as well, those are much smaller and in the case of GAR respondents not statistically significant. Pointing to a shift towards co-ethnic friendships we see an increase of 0.57 Syrian-born friends among BVOR respondents – essentially offsetting the decline in Canadian-born friends in the closest friendship circle.

Again, regression results summarized confirm these findings. As shown in Table 6 there are no longer significant differences between refugees that were sponsored at their arrival through the BVOR program and those that were not, in terms of the overall size and composition of their friendship networks. The same goes for the results from Censored Poisson regression models for the number of closest friends by country or region of birth (Table 7). If anything, BVOR respondents now have more friends born in Syria than those that were privately sponsored though differences are statistically significant only at the 0.1% level. In short, the initial gains in cross-ethnic friendships created through sponsorship did not persist, underscoring the limits of sponsorship contact as a long-term mechanism of social assimilation.

One potential concern is that these patterns could reflect selective attrition, since individuals with smaller networks may be less likely to participate in follow-up survey waves (e.g. Jacobsen et al. 2021; Voorpostel 2010) which would work against the findings we present. To rule out that the patterns we observe are driven by loss of statistical power or selective attrition of survey participants between both waves of the survey, we re-estimate the results for the first wave shown in Tables 4 and 5 by restricting our sample to individuals who participated in the second round of the data collection. Estimates are summarized in appendix Tables A2 and A3 and confirm that the significance and magnitude of the results presented above are substantively unchanged.

We then exploit the longitudinal aspect of our data by modeling the individual-level change

score for each variable used to measure friendship network size and composition, with the same set of controls as the models used in wave 2, including a control for whether respondents moved cities between survey waves (see appendix Tables A8 and A9). OLS regressions confirm the loss in inter-ethnic ties described above. By the time we re-interviewed our respondents three years later (in 2023), those sponsored through the BVOR program had lost on average 1.12 friends who spoke English or French compared to those without sponsorship ($p<0.001$) and 0.89 friends than those with private sponsorship ($p<0.05$). Notably, none of the variables in the models appear to account for the observed decline and only measures of pre-arrival social ties are statistically significant at the 0.05% level. As confirmed in Table 8 which shows the predicted difference in friendship counts between both waves, those in the PSR or GAR programs did not experience any significant changes in terms of the friendship networks while BVORs experienced a significant loss in the inter-ethnic ties they had acquired earlier through sponsorship.

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Figures 3 and 4

Tables 6 to 9.

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Discussion and Conclusion

The shift of social ties and development of friendship networks in the destination is a central aspect of migrants' settlement and assimilation trajectories. Even if in the beginning connections to those left behind are paramount, for many, social life in the destination society eventually gains importance (Piore 1979; Massey et al. 1990: Ch9) and cross-border ties weaken (Waldinger 2015).

While initially at least most social relationships newcomers make in the destination are with members of the co-ethnic community, over time friendships that span national-origin or ethnic boundaries become more common. At least according to the canonical neo-classic assimilation model these social relations outside of the co-national/co-ethnic community are, as Alba and Nee put it "unintended consequences of practical strategies and actions undertaken in pursuit of familiar goals—a good education, a good job, a nice place to live, interesting friends and acquaintances, economic security" (Alba and Nee 2003: 41) – the pursuit of the economic opportunities that spurred migration in the first place. But this also means that increased interaction with families of other backgrounds goes hand-in-hand with other adjustments such as the learning of the host country language or residential mobility.

Even if it was not the main policy objective, refugee sponsorship policies jump-start this process and in some ways re-order the sequence. Rather than structural assimilation – durable social ties – following assimilation in other domains, the ties provided through sponsorship come first and in turn should help foster adaptation in other domains – especially in the labor market. In theory at least refugees have some social connection literally on "day one" in the new country. Whether these initial connections indeed translate into durably different friendship networks and if so under which conditions is the central question we pursued in our analysis of the variation between different settlement and sponsorship programs.

The case we examined here, refugee sponsorship in the late 2010s and early 2020s in Canada, is surely specific in several ways. When it comes to the formation of friendships, especially those that cross ethnic lines, Canada with its strong self-perception as a multicultural nation (e.g. Winter 2011) might represent a best-case scenario – especially so in the period of 2015 to 2020 when the Syrian refugees first arrived during the first term of the Liberal government under

Justin Trudeau and the broad support for refugees in that period. On the other side of the ledger the varying restrictions on social gatherings during the COVID pandemic will surely have stymied the development of friendships. Since these factors apply in the same ways to all our respondents, we think there is little reason to suspect that they affect what we can learn from the comparisons across the three programs[5]. Finally, although the way the BVOR program is formally implemented and how refugees are selected to take part of it is unique to the Canadian context, a number of countries have implemented formal or informal mentorship or sponsorship programs. For example, in early 2023 the US launched a "Welcome Corps" initiative that was in part modeled on the BVOR program (Jordan 2023).

Beyond the specifics we argue that the different refugee populations we compare capture key aspects of the situation of immigrants upon arrival more generally. Privately sponsored refugees (PSR) in many critical respects resemble the classic "network driven" movement typical of labor migration but also some refugee movements. A large share of this population had pre-existing connections in Canada. The sponsors that enable resettlement to Canada and then provide support during the first year are often part of these social networks and so sponsorship fosters this embedding in co-ethnic social networks. Those resettled as Government assisted refugees (GAR) arrive in many ways as ideal-typical strangers to Canada. They have very few pre-migration ties to Canada and did not receive any formal sponsorship. Those in the BVOR program represent a case where the usual obstacles to building ties with members of the established population are removed and clearly the opportunity to making friends across the newcomer mainstream divide is provided. And indeed, we see significant differences in friendship networks after the formal

[5] Additional analysis suggest that differences in how sponsors reacted to COVID-19 social distancing rules do not account for our findings. Our data show those in the BVOR program were no less likely (and if anything slightly more likely) to socialize with Canadians during the first and second waves of COVID19.

sponsorship period ends: in the first wave of our survey conducted in 2020 respondents in the BVOR program have more friends and especially more friends that speak an official language. Furthermore, among their closest friends, more are Canadian-born.

But these additional friendships do not last: by the time we re-interviewed our respondents three years later (in 2023) the friendship networks of BVOR respondents were not distinguishable from the other refugees'. In particular, the additional friendships to speakers of official languages dissolved. Our data don't allow us to address the exact mechanisms for the dissolution of these ties, but our findings complement existing research on the durability of friendships and cross-ethnic friendships in particular, which has mostly examined friendship ties among school-age children (Hallinan and Williams 1989; Oczlon et al. 2023; Neray, Copeland, and Moody 2023). Two aspects of these sponsor-sponsored relationships turned friendships are likely especially relevant. Reciprocity is probably the most widely shared expectation people have about close social relationships (Blau 1964; Gould 2002; Hallinan and Teixeira 1987) and friendships where this expectation is not met are unlikely to last. The very logic of sponsor-sponsored relationships is that they are not reciprocal – especially so in the case of BVOR sponsorship where generally solidly upper-middle class Canadians provide assistance to refugees that were selected on the basis of vulnerability. A second aspect is the relational embeddedness or the degree to which a friendship is embedded in a larger circle of friends and acquaintances. Durable friendships generally fulfill these norms of embeddedness – that the friends of friends should be friends (Block and Grund 2014; Leszczensky and Pink 2015; Moody 2001; Smith et al. 2014). While all sponsorship relations will face these issues, they are less present in those between co-ethnics in the PSR program that often build on pre-existing relationships. In contrast relationships that start under the umbrella of a "sponsorship of strangers" like in the BVOR program are especially challenging in

this respect.

Thus, our results speak to debates about the interconnections between different dimensions of assimilation. Moving beyond the now largely abandoned view of assimilation as a complete "absorption" of immigrants into the host society, a reformed take on assimilation disaggregates different processes of adaptation in different domains (Brubaker 2001; Gordon 1964; Yinger 1981). That then raises the question to what extent processes of assimilation/integration in different domains are coupled or independent. For example, socioeconomic mobility as one dimension of assimilation may not depend on assimilation in other domains such as identification, or spatial assimilation and in fact as the segmented assimilation literature has argued, for some immigrants at least, socioeconomic mobility may mean resisting assimilation in some domains (Portes and Zhou 1993). Yet, in other domains certain aspects of assimilation might in fact be coupled. For example, spatial assimilation profoundly shapes contact opportunities and in turn the ability to form friendships beyond the immediate community (Massey and Denton 1993). As we show, the maintenance of friendship ties might in fact depend on other aspects of assimilation. Those friendships generated early on in the settlement process – out of sync with other dimensions of assimilation as it were – do not seem to last and we see a regression towards the average friendship patterns in the Syrian population.

Our results also speak to recent research that has emphasized the distinction between dyadic, ego-centric ties of migrants – also called individual migration social capital from community migration social capital – "derived from a wider, more diverse, but still bounded social circle" (Park et al. 2022: 474). Privately sponsored refugees possess ample amount of the former, while most of those arriving without sponsorship and without pre-existing ties to Canada completely lack this kind of social capital. The latter, community level social capital, in contrast

is equally available to all members of a migrant community. One important 'null finding' is the absence of significant differences in friendship networks between privately sponsored refugees (PSR) and those in the government program (GAR). Even with much lower levels of human and social capital than Privately Sponsored refugees at the outset, those without sponsorship were able to establish similar social networks in a relatively short time. When it comes to integration into destination society labor markets it is community level social capital that provides the largest benefits (Park et al. 2022). Our findings suggest that when it comes to establishing social connections in the destination society, the effects of individual level migration social capital may be limited as well. Privately sponsored refugees do not seem to be able to translate their significant pre-migration- and sponsorship ties into larger or more diverse friendship networks.

From the viewpoint of public policy initiatives that try to engineer social ties that cross ethnic, national-origin, or citizenship boundaries our results might at first appear disappointing. Sponsorship is a highly committed engagement of host-country citizens with newcomers over an entire year and yet we don't see durable effects on friendship networks. Rather than "cascading effects" where differences in initial positions are amplified over time friendships are a case where policy efforts meet powerful stabilizers that will lead patterns to revert to "normal." As summarized by Stevenson in a review of effects of interventions "One can push the orange up the side of the bowl, but as soon as you let go, it rolls back to the bottom" (Stevenson 2023, 2031).

Yet even if they are temporary, the sponsorship of strangers that spans large social distances provides unique advantages as suggested by previous work that finds better employment outcomes for those with sponsors (Kaida et al. 2020) and especially those with sponsors from outside the ethnic community (Soehl and VanHaren 2023) – a clear contrast with for example the MTO program where moving neighborhoods showed limited effects on these dimensions.

Although our data don't allow us to make strong causal claims about the effects of specific friendships, our appendix provides preliminary analyses that suggest that these friendships matter. Using the longitudinal nature of our data we relate measures of friendship networks in the first wave of the survey to indicators of settlement in the second wave of the survey. We find clear positive relationships between the number of friends that speak an official language with various measures of facility in English or French. In line with previous research on effects of sponsorship on job quality (Soehl and VanHaren 2023), we also find clear associations with employment satisfaction. Finally, in line with findings about the social cohesion effects of cross-ethnic ties (Allport 1954, Gordon 1964, Zhao 2025) we see stronger sense of belonging among those with more cross-ethnic friendships. Thus, while they might be fragile, the ties forged through the sponsorship of strangers also have the proverbial "strength of weak ties" (Granovetter 1973) precisely because they bridge large social distances, they can provide access to resources that are otherwise out of reach.

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Figures

Figure 1: Number of close friends and number of close friends by language spoken and religion

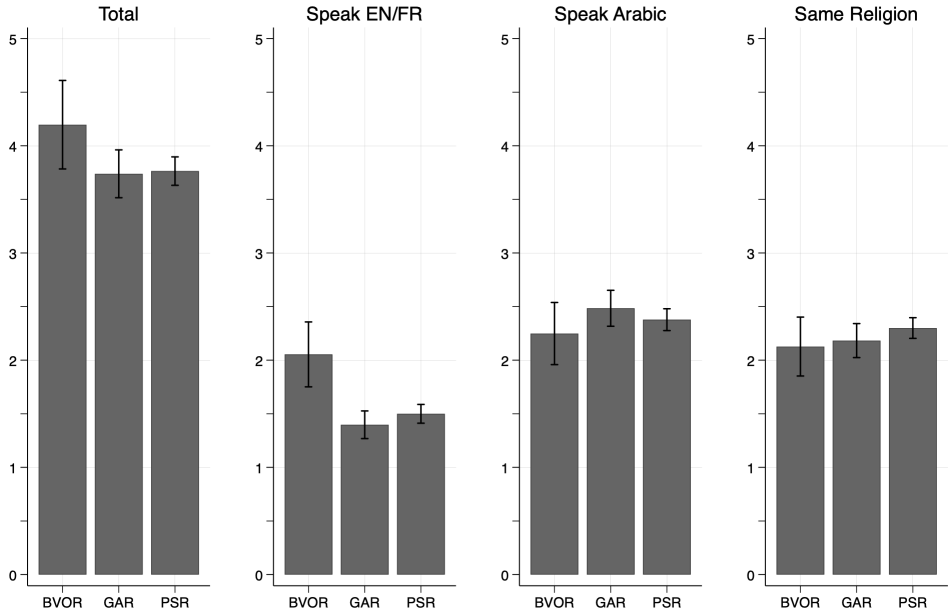


Figure 2: Number of closest friends by country of birth

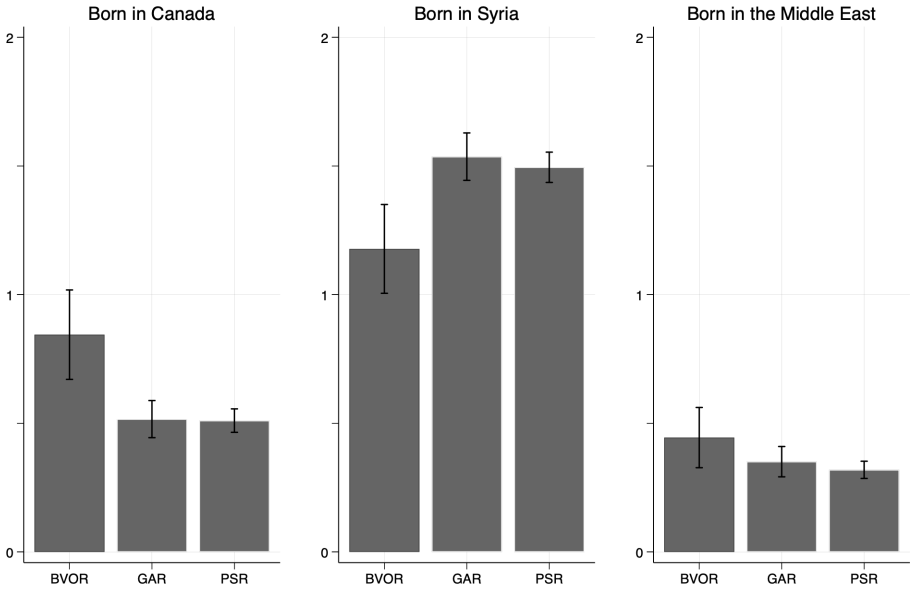


Figure 3: Number of close friends and number of close friends by language spoken and religion – comparing survey waves 1 and 2

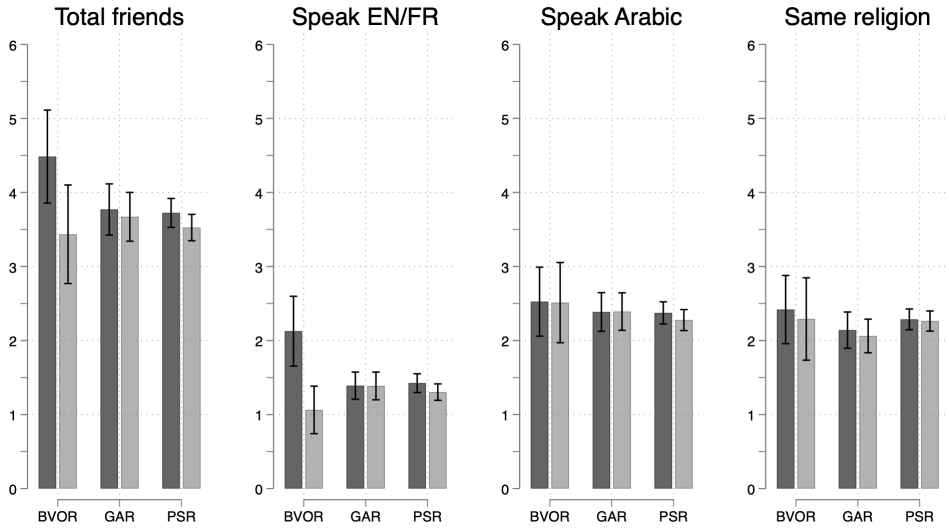
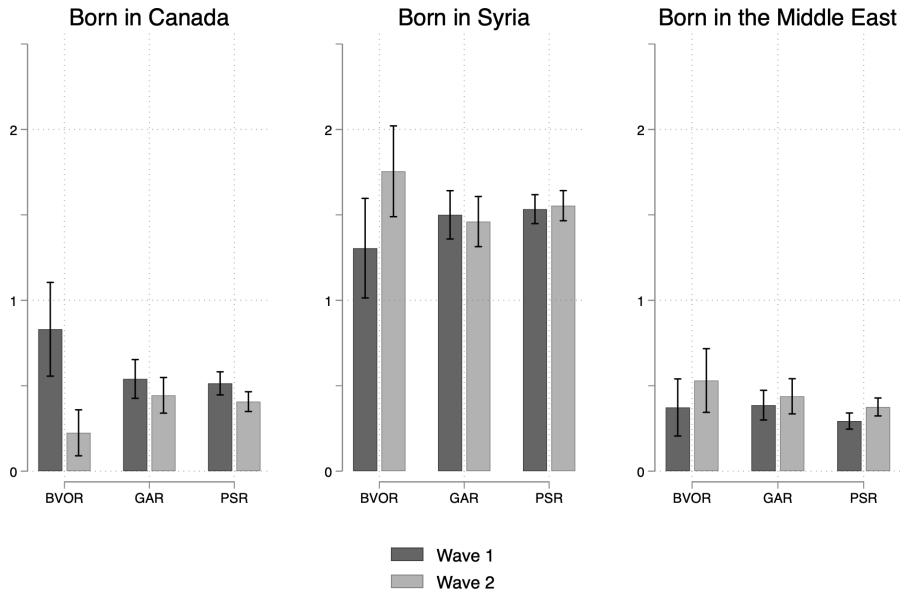


Figure 4: Number of closest friends by country of birth – comparing survey waves 1 and 2



Tables

Table 1: Key characteristics of refugee admissions categories and key features of sponsors

	Government Assisted Refugees (GAR)	Blended Visa-Office Referred Program (BVOR)	Privately Sponsored Refugees (PSR)
Selection into resettlement	UNHCR using vulnerability criteria		Sponsorship Group
Support during first 12 months in Canada	Government funded settlement NGOs	Sponsorship Group (some financial support from government for BVOR sponsors)	
Key characteristics of sponsors (Source: authors' survey)			
Sponsors born in Canada	-	65%	26%
Official language spoken with sponsor	-	72%	33%
Sponsor of same religion as refugee	-	5%	59%

Table 2: Demographic and socioeconomic characteristics by program of entry

	PSR Mean	BVOR Mean	GAR Mean	GAR vs. BVOR Diff
Female	0.50	0.54	0.46	0.08*
Years in Canada	3.48	3.93	3.99	-0.06
Household/Human capital characteristics				
Household size	3.82	5.50	5.57	-0.06
No children	0.37	0.13	0.14	-0.01
Education (years completed)	13.69	8.9	8.86	0.05
Speaks EN/FR well	0.75	0.44	0.37	0.07
Pre-arrival employment (Syria)				
Not working	0.50	0.58	0.51	0.07
Low skilled	0.07	0.18	0.18	0.00
High skilled	0.25	0.06	0.06	0.00
Self employed	0.18	0.18	0.25	-0.07*
Pre-arrival networks				
Know other Canadians in Canada	0.27	0.03	0.01	0.01
Know other Syrians in Canada	0.77	0.26	0.28	-0.02
Religion				
Christian	0.56	0.04	0.02	0.02
Muslim	0.38	0.93	0.96	-0.03
Geographic				
Quebec	0.38	0.02	0.05	-0.03*
Locality size				
Less than 100,000	0.03	0.09	0.04	0.05*
100,000-1,000,000	0.21	0.40	0.45	-0.05
Greater than 1,000,000	0.76	0.51	0.51	-0.00
N	1320	161	492	

Notes: *p < .05 **p < .01 ***p < .001. Data are weighted to the counts of the Syrian refugee population admitted between 2015 and 2018 by age, educational attainment, and gender.

Table 3: Descriptive Statistics of Friendship Networks

Number of friends (count)	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7 or more**	**Mean number**
	11%	8%	16%	14%	11%	9%	4%	26%	3.79
Friendship composition									
4 friends or more (share)	**None (0)**	**Almost none (0.16)**	**A few (0.33)**	**About Half (0.5)**	**Most (0.67)**	**Almost All (0.83)**	**All (1)**		**Mean (weighted share)**[a]
Speak EN/FR	12%	9%	39%	17%	14%	7%	3%		1.52
Speak Arabic	4%	3%	24%	15%	25%	14%	16%		2.39
Same religion	4%	4%	31%	15%	22%	12%	12%		2.36
3 friends or less (share)	**None (0)**	**One (.33)**	**Two (.67)**	**Three (1)**					**Mean number**
Speak EN/FR	50%	29%	17%	4%					0.75
Speak Arabic	12%	35%	36%	18%					1.61
Same religion	12%	33%	36%	19%					1.62
Three closest friends (count)									
In Canada	61%	27%	9%	3%					.54
In Syria	17%	38%	26%	19%					1.48
In Middle East	72%	23%	5%	0%					.34
Elsewhere	82%	15%	2%	1%					.21

Notes: [a] We construct a continuous variable for the estimated number of friends by multiplying the total number of friends by the share of friends who speak a given language or practice the same religion.

Table 4: Regression models for number of friends and number of friends by language spoken and religion (Survey Wave 1)

	Censored Poisson model	Linear regression models		
	Total Friends	Speak EN/FR	Speak Arabic	Same Religion
BVOR vs. GAR	**1.19***	**0.78*****	**−0.25**	**−0.18**
	(0.08)	**(0.17)**	**(0.18)**	**(0.16)**
PSR vs. GAR	1.02	0.13	−0.06	0.03
	(0.06)	(0.12)	(0.15)	(0.14)
BVOR vs. PSR	1.16+	0.65***	−0.19	−0.20
	(0.09)	(0.19)	(0.19)	(0.18)
Female	0.97	−0.21*	−0.01	0.02
	(0.04)	(0.08)	(0.10)	(0.09)
Age	1.01***	0.02**	0.02*	0.01+
	(0.00)	(0.01)	(0.01)	(0.01)
Years in Canada	1.03	0.01	0.04	0.06
	(0.02)	(0.04)	(0.05)	(0.05)
Full set of controls	*X*	*X*	*X*	*X*
Observations	1973	1973	1973	1973

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Incidence rate ratios (IRR) are shown for the Censored Poisson models; standard errors in parentheses. Data are weighted to the counts of the Syrian refugee population admitted between 2015 and 2018 by age, educational attainment, and gender.

Table 5: Number of closest friends by place of birth (Survey Wave 1)

	Censored Poisson models		
	Friends born Canada	Friends born Syria	Friends born Middle East
BVOR vs. GAR	**1.62*****	**0.77****	**0.92**
	(0.20)	**(0.07)**	**(0.13)**
PSR vs. GAR	1.24*	0.88*	1.12
	(0.13)	(0.06)	(0.13)
BVOR vs. PSR	1.23^{+}	0.89^{+}	1.10
	(0.13)	(0.06)	(0.13)
Female	0.95	1.01	0.94
	(0.07)	(0.04)	(0.08)
Age	1.00	1.00	1.01*
	(0.00)	(0.00)	(0.01)
Years in Canada	1.05	1.01	0.97
	(0.04)	(0.02)	(0.04)
Full set of controls	*X*	*X*	*X*
Observations	1973	1973	1973

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Incidence rate ratios (IRR) are shown; standard errors in parentheses. Data are weighted to the counts of the Syrian refugee population admitted between 2015 and 2018 by age, educational attainment, and gender.

Table 6: Number of friends and the estimated number of friends by language spoken and religion (Wave 2)

	Censored Poisson model	Linear regression models		
	Total Friends	Speak EN/FR	Speak Arabic	Same Religion
BVOR vs. GAR	**0.98**	**−0.19**	**0.20**	**0.31**
	(0.13)	**(0.20)**	**(0.31)**	**(0.29)**
PSR vs. GAR	0.88	−0.28	−0.34	−0.02
	(0.08)	(0.18)	(0.23)	(0.22)
BVOR vs. PSR	1.11	0.08	0.54	0.33
	(0.16)	(0.23)	(0.34)	(0.32)
Female	0.91	−0.15	−0.15	−0.17
	(0.06)	(0.13)	(0.15)	(0.14)
Age	1.01^{+}	0.00	0.02^{*}	0.01
	(0.00)	(0.01)	(0.01)	(0.01)
Years in Canada	1.07^{+}	0.03	0.12	0.13
	(0.04)	(0.06)	(0.09)	(0.08)
Full set of controls	*X*	*X*	*X*	*X*
Observations	855	855	855	855

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Incidence rate ratios (IRR) are shown for the Censored Poisson models; standard errors in parentheses. Data are weighted to the counts of the Syrian refugee population admitted between 2015 and 2018 by age, educational attainment, and gender.

Table 7: Number of closest friends by place of birth (Survey Wave 2)

	Censored Poisson models		
	Friends born Canada	Friends born Syria	Friends born Middle East
BVOR vs. GAR	**0.66**	**1.15**	**1.34**
	(0.17)	**(0.14)**	**(0.25)**
PSR vs. GAR	1.05	0.90	1.17
	(0.18)	(0.09)	(0.20)
BVOR vs. PSR	0.63	1.28^{+}	1.14
	(0.18)	(0.18)	(0.24)
Female	0.92	0.96	0.84
	(0.11)	(0.07)	(0.10)
Age	1.01	1.00	1.01
	(0.01)	(0.00)	(0.01)
Years in Canada	0.96	1.00	1.02
	(0.06)	(0.04)	(0.06)
Full set of controls	*X*	*X*	*X*
Observations	855	855	855

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Incidence rate ratios (IRR) are shown; standard errors in parentheses. Data are weighted to the counts of the Syrian refugee population admitted between 2015 and 2018 by age, educational attainment, and gender.

Table 8: Predicted change in the number of friends between both waves of data collection (Restricted to participants in both waves)

	Total Friends	Speak EN/FR	Speak Arabic	Same religion
BVOR	-1.31^{**}	-1.09^{***}	-0.04	-0.02
	(0.43)	(0.31)	(0.35)	(0.33)
GAR	-0.10	0.05	0.05	-0.05
	(0.24)	(0.15)	(0.18)	(0.17)
PSR	-0.21	-0.11	-0.19	-0.11
	(0.16)	(0.10)	(0.12)	(0.11)

	Born in Canada	Born in Syria	Born in the Middle East
BVOR	-0.45^{**}	0.24	0.19
	(0.14)	(0.21)	(0.13)
GAR	$-0.15+$	0.06	-0.00
	(0.08)	(0.11)	(0.07)
PSR	-0.07	0.01	0.05
	(0.05)	(0.07)	(0.05)

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Marginal effects are calculated as the average predicted change. Data are weighted to the counts of the Syrian refugee population admitted between 2015 and 2018 by age, educational attainment, and gender.

Appendix A. Additional Tables for Online Publication

Table A1: Predicted counts by program of entry

	Total Friends	Speak EN/FR	Speak Arabic	Same religion
Panel A. Wave 1				
BVOR	4.61	2.17	2.23	2.07
GAR	3.85	1.37	2.47	2.24
PSR	4.16	1.53	2.53	2.41
Panel B. Wave 2				
BVOR	3.65	1.18	2.64	2.41
GAR	3.87	1.42	2.52	2.16
PSR	3.66	1.25	2.29	2.25

	Born in Canada	Born in Syria	Born in the Middle East
Panel A. Wave 1			
BVOR	0.84	1.22	0.39
GAR	0.52	1.56	0.43
PSR	0.63	1.46	0.45
Panel A. Wave 2			
BVOR	0.32	1.79	0.57
GAR	0.48	1.59	0.42
PSR	0.50	1.52	0.47

Notes: Marginal effects are calculated as the average predicted counts, based on the models presented in Tables 3 and 4 for wave 1 of the survey and Tables 6 and 7 for wave 2 of the survey. Data are weighted to thecounts of the Syrian refugee population admitted between 2015 and 2018 by age, educational attainment, and gender.

Table A2: Number of friends and the estimated number of friends

by language spoken and religion (Wave 1, restricted to both wave participants)

	Censored Poisson model		Linear regression models					
	Total Friends		Speak EN/FR		Speak Arabic		Same Religion	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
BVOR vs. GAR	**1.21+**	**1.28***	**0.75****	**0.77****	**0.07**	**0.17**	**0.16**	**0.16**
	(0.13)	**(0.14)**	**(0.27)**	**(0.26)**	**(0.29)**	**(0.28)**	**(0.28)**	**(0.26)**
PSR vs. GAR	0.98	0.93	0.03	-0.02	-0.08	-0.18	0.11	-0.06
	(0.07)	(0.09)	(0.12)	(0.19)	(0.18)	(0.23)	(0.17)	(0.22)
BVOR vs. PSR	1.24*	1.38**	0.72**	0.79**	0.16	0.35	0.05	0.22
	(0.12)	(0.17)	(0.26)	(0.29)	(0.27)	(0.32)	(0.25)	(0.28)
Female	0.93	0.94	-0.33**	-0.33**	0.04	-0.03	0.15	0.03
	(0.06)	(0.06)	(0.11)	(0.13)	(0.16)	(0.16)	(0.15)	(0.14)
Age	1.01***	1.01	0.01+	0.00	0.03***	0.01	0.02**	0.00
	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Years in Canada	1.03	1.05	0.01	0.02	0.02	0.02	0.13	0.09
	(0.03)	(0.03)	(0.06)	(0.06)	(0.08)	(0.09)	(0.08)	(0.08)
Full controls		X		X		X		X
Observations	855	855	855	855	855	855	855	855

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Incidence rate ratios (IRR) are shown for the Censored Poisson models; standard errors in parentheses. Data are weighted to the counts of the Syrian refugee population admitted between 2015 and 2018 by age, educational attainment, and gender.

Table A3: Number of closest friends by place of birth (Wave 1, restricted to both wave participants)

	Censored Poisson models					
	Friends born Canada		Friends born Syria		Friends born Middle East	
	(1)	(2)	(1)	(2)	(1)	(2)
BVOR vs. GAR	**1.39+**	**1.29**	**0.88**	**0.92**	**0.81**	**0.74**
	(0.27)	**(0.27)**	**(0.12)**	**(0.13)**	**(0.19)**	**(0.18)**
PSR vs. GAR	0.98	1.00	1.04	0.97	0.74∗	1.05
	(0.12)	(0.17)	(0.07)	(0.10)	(0.09)	(0.19)
BVOR vs. PSR	1.43∗	1.29	0.85	0.95	1.09	0.70
	(0.26)	(0.34)	(0.11)	(0.15)	(0.24)	(0.19)
Female	1.05	1.12	1.02	0.98	0.99	0.95
	(0.11)	(0.12)	(0.06)	(0.06)	(0.12)	(0.12)
Age	1.00	1.00	1.00	1.00	1.01	1.01
	(0.01)	(0.01)	(0.00)	(0.00)	(0.01)	(0.01)
Years in Canada	1.07	1.12∗	1.00	0.98	0.99	1.02
	(0.06)	(0.06)	(0.03)	(0.04)	(0.06)	(0.06)
Full set of controls		X		X		X
Observations	855	855	855	855	855	855

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Incidence rate ratios (IRR) are shown; standard errors in parentheses. Data are weighted to the counts of the Syrian refugee population admitted between 2015and 2018 by age, educational attainment, and gender.

Table A4: Number of friends and the estimated number of friends by language spoken and religion (Wave 1, Full models)

	Censored Poisson model	Linear regression models		
	Total Friends	Speak EN/FR	Speak Arabic	Same Religion
BVOR vs. GAR	**1.19***	**0.78*****	**-0.25**	**-0.18**
	(0.08)	**(0.18)**	**(0.18)**	**(0.16)**
PSR vs. GAR	0.02	0.13	-0.06	0.03
	(0.06)	(0.12)	(0.15)	(0.14)
BVOR vs. PSR	1.16*	0.65***	-0.19	-0.20
	(0.09)	(0.16)	(0.19)	(0.18)
Female	0.97	0.21*	0.01	0.02
	(0.04)	(0.08)	(0.10)	(0.09)
Age	1.01***	0.02**	0.02*	0.01+
	(0.00)	(0.01)	(0.01)	(0.01)
Years in Canada	1.03	0.01	0.04	0.06
	(0.02)	(0.04)	(0.05)	(0.05)
Education (years completed)	1.00	0.00	0.01	0.01
	(0.00)	(0.01)	(0.01)	(0.01)
Speaks well EN/FR	1.07	0.27**	-0.15	-0.04
	(0.05)	(0.10)	(0.12)	(0.11)
Household size	1.00	-0.04	-0.02	0.01
	(0.01)	(0.03)	(0.04)	(0.04)
Number of children	1.05**	0.08*	0.18***	0.13**
	(0.02)	(0.03)	(0.04)	(0.04)
Religion(ref=Christian)				
Muslim	1.06	0.03	0.03	0.43**
	(0.06)	(0.12)	(0.14)	(0.14)
None/Other/Not Stated	1.16+	0.30	0.04	-1.03***
	(0.10)	(0.20)	(0.21)	(0.18)
Employment in Syria(ref=Not working)				
Lower skill	0.95	-0.15	-0.18	0.36**
	(0.06)	(0.13)	(0.16)	(0.14)
Higher skill	0.98	-0.02	-0.07	-0.19
	(0.05)	(0.10)	(0.13)	(0.12)
Self employed	0.95	-0.19+	-0.15	-0.22+
	(0.05)	(0.11)	(0.14)	(0.13)
Quebec	0.96	-0.21*	0.19	-0.17
	(0.05)	(0.10)	(0.12)	(0.11)
Locality size(ref=Less than 100,000 hab)				
100,000-1,000,000	1.00	-0.00	0.30	0.55**
	(0.10)	(0.21)	(0.27)	(0.20)
Greater than 1,000,000	1.00	-0.14	0.36	0.55**
	(0.10)	(0.20)	(0.26)	(0.19)
Phone interview	0.87+	-0.21	-0.02	0.26
	(0.06)	(0.14)	(0.20)	(0.18)
Pre-arrival ties				
Know other Canadians in Canada	1.08	0.43***	-0.08	0.04
	(0.05)	(0.12)	(0.12)	(0.12)
Know other Syrians in Canada	1.10*	0.19*	0.42***	0.41***
	(0.04)	(0.09)	(0.11)	(0.10)
Observations	1973	1973	1973	1973

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Incidence rate ratios (IRR) are shown in the first column; standard errors in parentheses. Data are weighted to the counts of the Syrian refugee population admitted between 2015 and 2018 by age, educational attainment, and gender.

Table A5: Number of closest friends by place of birth (Wave 1, Full models)

	Friends born Canada	Friends born Syria	Friends born Middle East
BVOR vs. GAR	**1.62*** **	**0.77** **	**0.92**
	(0.20)	**(0.07)**	**(0.13)**
PSR vs. GAR	1.23+	0.89+	1.10
	(0.13)	(0.06)	(0.13)
BVOR vs. PSR	1.31+	0.87	0.84
	(0.19)	(0.08)	(0.13)
Female	0.95	1.01	0.94
	(0.07)	(0.04)	(0.08)
Age	1.00	1.00	1.01*
	(0.00)	(0.00)	(0.01)
Years in Canada	1.05	1.01	0.97
	(0.04)	(0.02)	(0.04)
Education (years completed)	1.00	1.00	0.99
	(0.01)	(0.00)	(0.01)
Speaks well EN/FR	1.06	0.96	0.94
	(0.09)	(0.05)	(0.09)
Household size	1.00	1.01	1.04
	(0.02)	(0.02)	(0.03)
Number of children	0.97	1.03	0.94+
	(0.03)	(0.02)	(0.03)
Religion(ref=Christian)			
Muslim	1.08	0.95	1.31**
	(0.10)	(0.05)	(0.13)
None/Other/Not Stated	1.30*	0.85	1.06
	(0.17)	(0.09)	(0.18)
Employment in Syria(ref=Not working)			
Lower skill	1.05	0.94	0.88
	(0.11)	(0.06)	(0.11)
Higher skill	1.07	1.04	0.86
	(0.09)	(0.06)	(0.10)
Self employed	0.89	1.02	0.93
	(0.09)	(0.06)	(0.10)
Quebec	0.85+	1.10*	1.03
	(0.08)	(0.05)	(0.10)
Locality size(ref=Less than 100,000 hab)			
100,000-1,000,000	0.70*	1.21	1.02
	(0.10)	(0.15)	(0.21)
Greater than 1,000,000	0.49***	1.34*	1.08
	(0.07)	(0.16)	(0.21)
Phone interview	0.86	1.07	1.10
	(0.11)	(0.08)	(0.14)
Pre-arrival ties			
Know other Canadians in Canada	1.20*	0.85***	0.99
	(0.09)	(0.04)	(0.09)
Know other Syrians in Canada	0.75***	1.36***	0.78**
	(0.06)	(0.07)	(0.07)
Observations	1973	1973	1973

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Incidence rate ratios (IRR) are shown; standard errors in parentheses.

Data are weighted to the counts of the Syrian refugee population admitted between 2015 and 2018 by age, educational attainment, and gender

Table A6: Number of friends and the estimated number of friendsby language spoken and religion (Wave 2, Full models)

	Censored Poisson model	Linear regression models		
	Total Friends	Speak EN/FR	Speak Arabic	Same Religion
BVOR vs. GAR	**0.98**	**-0.19**	**0.20**	**0.31**
	(0.13)	**(0.20)**	**(0.31)**	**(0.29)**
PSR vs. GAR	0.88	-0.28	-0.34	-0.02
	(0.08)	(0.18)	(0.23)	(0.22)
BVOR vs. PSR	1.11	0.08	0.54	0.33
	(0.16)	(0.23)	(0.34)	(0.32)
Female	0.91	0.21*	0.01	0.02
	(0.06)	(0.08)	(0.10)	(0.09)
Age	1.01+	-0.15	-0.15	-0.17
	(0.00)	(0.13)	(0.15)	(0.14)
Years in Canada	1.07+	0.01	0.02*	0.01
	(0.04)	(0.01)	(0.01)	(0.01)
Move city	1.04	0.14	0.02	0.07
	(0.10)	(0.19)	(0.23)	(0.23)
Education (years completed)	0.99	-0.01	-0.00	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Speaks well EN/FR	1.07	0.12	0.04	0.01
	(0.08)	(0.16)	(0.19)	(0.17)
Household size	1.03+	0.01	0.08*	0.13**
	(0.02)	(0.04)	(0.04)	(0.04)
Number of children	1.00	-0.00	-0.01	-0.01+
	(0.00)	(0.00)	(0.01)	(0.00)
Religion(ref=Christian)				
Muslim	1.10	0.23	0.08	-0.28
	(0.09)	(0.15)	(0.18)	(0.18)
None/Other/Not Stated	0.92	0.01	-0.56*	-0.97***
	(0.12)	(0.24)	(0.26)	(0.28)
Employment in Syria(ref=Not working)				
Lower skill	0.83	-0.16	-0.45+	-0.31
	(0.10)	(0.20)	(0.26)	(0.23)
Higher skill	1.06	0.16	-0.03	0.03
	(0.08)	(0.14)	(0.18)	(0.17)
Self employed	1.07	0.09	0.08	0.34+
	(0.09)	(0.18)	(0.22)	(0.20)
Quebec	1.16*	0.10	0.49**	0.27+
	(0.08)	(0.13)	(0.16)	(0.16)
Locality size(ref=Less than 100,000 hab)				
100,000-1,000,000	1.16	-0.34	0.60	0.82*
	(0.20)	(0.31)	(0.41)	(0.34)
Greater than 1,000,000	1.10	-0.32	0.42	0.63+
	(0.19)	(0.32)	(0.40)	(0.33)
Phone interview	0.87	-0.56**	-0.10	-0.01
	(0.11)	(0.18)	(0.29)	(0.27)
Pre-arrival ties				
Know other Canadians in Canada	1.08	0.13	-0.09	0.13
	(0.07)	(0.13)	(0.16)	(0.16)

Know other Syrians in Canada	1.24**	0.29*	0.45*	0.39*
	(0.10)	(0.13)	(0.18)	(0.18)
Observations	855	855	855	855

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Incidence rate ratios (IRR) are shown in the first column; standard errors in parentheses. Data are weighted to the counts of the Syrian refugee population admitted between 2015 and 2018 byage, educational attainment, and gender.

Table A7: Number of closest friends by place of birth (Wave 2, Full models)

	Friends born Canada	Friends born Syria	Friends born Middle East
BVOR vs. GAR	**0.66**	**1.15**	**1.34**
	(0.17)	**(0.14)**	**(0.25)**
PSR vs. GAR	1.05	0.90	1.17
	(0.18)	(0.09)	(0.20)
BVOR vs. PSR	0.63	1.28+	1.14
	(0.18)	(0.18)	(0.24)
Female	0.92	0.96	0.84
	(0.11)	(0.07)	(0.10)
Age	1.01	1.00	1.01
	(0.01)	(0.00)	(0.01)
Years in Canada	0.97	1.00	1.02
	(0.06)	(0.04)	(0.06)
Moved city	0.96	1.19	1.04
	(0.19)	(0.13)	(0.23)
Education (years completed)	0.99	1.00	1.00
	(0.01)	(0.01)	(0.01)
Speaks well EN/FR	0.92	0.95	0.87
	(0.13)	(0.08)	(0.12)
Household size	0.97	1.02	1.03
	(0.04)	(0.02)	(0.04)
Number of children	1.00	1.00	0.99+
	(0.00)	(0.00)	(0.00)
Religion(ref=Christian)			
Muslim	0.93	0.91	1.25
	(0.15)	(0.08)	(0.20)
None/Other/Not Stated	1.19	0.66**	1.44+
	(0.24)	(0.09)	(0.28)
Employment in Syria(ref=Not working)			
Lower skill	1.21	0.93	1.04
	(0.22)	(0.11)	(0.21)
Higher skill	1.06	1.02	0.97
	(0.15)	(0.09)	(0.15)
Self employed	0.80	1.12	0.89
	(0.14)	(0.10)	(0.14)
Quebec	0.87	1.26**	0.79
	(0.12)	(0.10)	(0.14)
Locality size(ref=Less than 100,000 hab)			
100,000-1,000,000	0.56*	1.26	1.23
	(0.13)	(0.22)	(0.31)
Greater than 1,000,000	0.44***	1.31	1.27
	(0.10)	(0.24)	(0.33)
Phone interview	0.82	1.10	0.82
	(0.25)	(0.13)	(0.18)
Pre-arrival ties			
Know other Canadians in Canada	1.25+	0.95	0.99
	(0.17)	(0.08)	(0.14)
Know other Syrians in Canada	0.73*	1.21*	0.98
	(0.09)	(0.10)	(0.14)
Observations	855	855	855

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Incidence rate ratios (IRR) are shown; standard errors in parentheses. Data are weighted to the counts of the Syrian refugee population admitted between 2015 and

2018 by age, educational attainment, and gender.

Table A8: Change in the number of friends and the estimated number of friends by language spoken and religion (Full models)

	Censored Poisson model	Linear regression models		
	Total Friends	Speak EN/FR	Speak Arabic	Same Religion
BVOR vs. GAR	**-1.09***	**-1.12*****	**0.01**	**0. 08**
	(0.47)	**(0.31)**	**(0.39)**	**(0.36)**
PSR vs. GAR	0. 06	-0. 24	-0.02	0.13
	(0.34)	(0.23)	(0.25)	(0.24)
BVOR vs. PSR	1.14*	-0.89*	0.03	-0.05
	(0.52)	(0.36)	(0.40)	(0.38)
Female	-0.11	0.17	-0.12	-0.20
	(0.23)	(0.13)	(0.18)	(0.16)
Age	-0.02	-0.01	-0.01	-0.01
	(0.02)	(0.01)	(0.01)	(0.01)
Years in Canada	0.03	-0.01	0.08	0.03
	(0.12)	(0.07)	(0.10)	(0.10)
Move city	-0. 27	-0.18	-0. 21	-0. 08
	(0.37)	(0.20)	(0.26)	(0.26)
Education (years completed)	-0.02	-0.01	-0.01	-0.01
	(0.02)	(0.01)	(0.01)	(0.01)
Speaks well EN/FR	-0.03	-0.03	0.29	0.14
	(0.27)	(0.17)	(0.22)	(0.21)
Household size	-0.06	0.02	-0.05	-0.06
	(0.09)	(0.05)	(0.06)	(0.06)
Number of children	0.05	-0.03	0.01	0.04
	(0.10)	(0.05)	(0.08)	(0.08)
Religion(ref=Christian)				
Muslim	0.28	0.31+	0.23	0.21
	(0.27)	(0.17)	(0.23)	(0.22)
None/Other/Not Stated	-0.02	-0.04	0.09	0.28
	(0.41)	(0.29)	(0.29)	(0.33)
Employment in Syria(ref=Not working)				
Lower skill	0.14	0.12	-0.04	0.17
	(0.41)	(0.24)	(0.35)	(0.28)
Higher skill	-0.03	-0.16	0.06	0.16
	(0.25)	(0.16)	(0.20)	(0.18)
Self employed	-0.02	0.08	0.02	0.25
	(0.33)	(0.20)	(0.25)	(0.24)
Quebec	0.37	0.21	0.18	0.28
	(0.25)	(0.14)	(0.20)	(0.18)
Locality size(ref=Less than 100,000 hab)				
100,000-1,000,000	0.62	-0.21	0.45	0.18
	(0.82)	(0.45)	(0.68)	(0.42)
Greater than 1,000,000	0.67	-0.09	0.35	0.07
	(0.81)	(0.44)	(0.67)	(0.41)
Phone interview	-0.09	-0.39	-0.01	-0.21
	(0.52)	(0.25)	(0.44)	(0.40)
Pre-arrival ties				
Know other Canadians in Canada	-0.44+	-0.35*	-0.35+	-0.19
	(0.23)	(0.15)	(0.20)	(0.18)
Know other Syrians in Canada	0.09	0.43**	-0.12	-0.20
	(0.26)	(0.15)	(0.22)	(0.21)
Observations	855	855	855	855

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Incidence rate ratios (IRR) are shown in the first column; standard errors in parentheses. Data are weighted to the counts of the Syrian refugee population admitted between 2015 and 2018 byage, educational attainment, and gender.

Table A9: Change in the number of closest friends by place of birth (Full models)

	Friends born Canada	Friends born Syria	Friends born Middle East
BVOR vs. GAR	**-0.26+**	**0.22**	**0.19**
	(0.14)	**(0.22)**	**(0.14)**
PSR vs. GAR	0.05	-0.09	0.08
	(0.12)	(0.15)	(0.10)
BVOR vs. PSR	0.63	1.28+	1.14
	(0.18)	(0.18)	(0.24)
Female	0.92	0.96	0.84
	(0.11)	(0.07)	(0.10)
Age	-0.00	0.00	-0.00
	(0.01)	(0.01)	(0.01)
Years in Canada	-0.09*	0.04	0.04
	(0.04)	(0.05)	(0.04)
Moved city	-0.00	-0.01	0.05
	(0.10)	(0.15)	(0.13)
Education (years completed)	-0.00	0.01	-0.00
	(0.01)	(0.01)	(0.01)
Speaks well EN/FR	-0.12	0.05	0.01
	(0.09)	(0.13)	(0.08)
Household size	-0.01	-0.05	0.00
	(0.03)	(0.04)	(0.03)
Number of children	0.05	-0.01	0.02
	(0.04)	(0.05)	(0.03)
Religion(ref=Christian)			
Muslim	-0.10	-0.09	-0.00
	(0.09)	(0.13)	(0.09)
None/Other/Not Stated	-0.24	-0.15	0.18
	(0.16)	(0.20)	(0.12)
Employment in Syria(ref=Not working)			
Lower skill	0.11	-0.12	0.11
	(0.14)	(0.20)	(0.13)
Higher skill	-0.13	0.06	0.02
	(0.09)	(0.13)	(0.08)
Self employed	-0.01	0.08	0.07
	(0.10)	(0.15)	(0.10)
Quebec	0.02	0.05	0.03
	(0.08)	(0.13)	(0.09)
Locality size(ref=Less than 100,000 hab)			
100,000-1,000,000	-0.07	0.32	0.20
	(0.21)	(0.29)	(0.20)
Greater than 1,000,000	0.09	0.13	0.17
	(0.21)	(0.28)	(0.20)
Phone interview	-0.05	0.38+	-0.28*
	(0.13)	(0.20)	(0.12)
Pre-arrival ties			
Know other Canadians in Canada	-0.03	0.17	-0.03
	(0.08)	(0.11)	(0.08)
Know other Syrians in Canada	0.05	-0.01	0.02
	(0.08)	(0.12)	(0.08)
Observations	855	855	855

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Incidence rate ratios (IRR) are shown; standard errors in

parentheses. Data are weighted to the counts of the Syrian refugee population admitted between 2015 and 2018 by age, educational attainment, and gender.

Appendix B: Do friendships matter?

Appendix Tables B1 through B3 report results from from models where we predict variables that are often taken as measures of assimilation. Dependent variables are measured during the second wave of data collection, using first-wave reports of friendship network size as key predictors. For simplicity we use we use linear regression but ordered logistic regressions give substantively the same results. In addition to gender, age, and years in Canada since arrival, all models include the same set of controls as in the main analyses: education, household size, number of children, religion (Christian as reference), employment status (low-skill, high-skill, or self-employed, with not working as the reference), whether the individual had pre-arrival ties (knowing Canadians or Syrians in Canada prior to arrival), and region fixed effects.

The first two rows show their association with the total number of reported friends by place of birth (Canada or Syria), while rows three and four show the association between each outcome and the weighted share of reported friends by language spoken at home (English/French or Arabic). Table B1 presents the associations between early friendship networks and three measures of language skills: good understanding, good speaking, and good reading skills in English or French. Table B2 shows associations with employment satisfaction and life satisfaction. Table B3 focuses on the link between friendships and both feelings of belonging at home and reported skill gains in employment. Statistically significant coefficients are shown in bold. This ancillary analysis suggests that friendships at the outset of settlement are consequential, and positively predict assimilation in these domains.

Table B1 indicates a strong and significant relationship between having more Canadian-born friends soon after arrival and reporting good understanding and good speaking skills in an official language three years later. Likewise, having more friends who spoke an official language at home is positively associated with all three measures of language proficiency: understanding, speaking, and reading skills. By contrast, co-ethnic friendships show negative associations: having more Syrian-born friends is linked with a lower likelihood of speaking

English or French well, and a higher share of Arabic-speaking friends at home is associated with weaker reported understanding and reading skills.

Turning to Table B2, the results show that friendships with those who speak English or French at home are positively associated with satisfaction outcomes, while no such relationship appears for friendships based on place of birth. Reporting a larger share of close friendships who speak English or French at home during the first wave corresponds to being more satisfied both with employment and with life more generally.

Finally, Table B3 shows that a larger share of close friendships who speak an official language is also associated with stronger feelings of belonging three years later. In contrast, both co-ethnic and inter-ethnic friendships appear to matter nearly equally for reported employment skill gains, with co-ethnic friendships who were born in Syria having a slightly larger effect.

Table B1: Linear Regression of Early Friendship Networks on Later Language Skills

	Wave 2 outcomes					
	Understand EN/FR	Understand EN/FR	Speak EN/FR	Speak EN/FR	Read EN/FR	Read EN/FR
Wave 1 controls	(1)	(2)	(3)	(4)	(5)	(6)
Friendships						
Born Canada (W1)	**0.11***		**0.09+**		0.09	
	(0.05)		**(0.05)**		(0.06)	
Born Syria (W1)	-0.06		**-0.08+**		-0.01	
	(0.04)		**(0.04)**		(0.04)	
Speak EN/FR (W1)		**0.07****		**0.07****		**0.06***
		(0.02)		**(0.02)**		**(0.02)**
Speak Arabic (W1)		**-0.04***		-0.02		**-0.04***
		(0.02)		(0.02)		**(0.02)**
Female	-0.17*	-0.14+	-0.17*	-0.11	-0.06	-0.03
	(0.08)	(0.07)	(0.08)	(0.08)	(0.08)	(0.08)
Age	-0.04***	-0.03***	-0.03***	-0.03***	-0.03***	-0.03***
	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)
Years in Canada	0.05	0.04	0.04	0.04	0.07+	0.06
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Full set of controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	649	739	641	732	638	727
Friendship variable type	Total	Weighted share	Total	Weighted share	Total	Weighted share

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Standard errors are shown in parentheses. Data are weighted to the counts of the Syrian refugee population admitted between 2015 and 2018 by age, educational attainment, and gender.

Table B2: Linear Regression of Early Friendship Networks on Employment and Life Satisfaction

	Wave 2 outcomes			
Wave 1 controls	Emp. satisfaction (1)	Emp. satisfaction (2)	Life satisfaction (3)	Life satisfaction (4)
Friendships				
Born Canada (W1)	-0.00		0.06	
	(0.07)		(0.05)	
Born Syria (W1)	-0.07		0.00	
	(0.06)		(0.04)	
Speak EN/FR (W1)		**0.07***		**0.04+**
		(0.03)		**(0.02)**
Speak Arabic (W1)		-0.02		-0.00
		(0.03)		(0.02)
Female	0.09	0.10	-0.17*	-0.11+
	(0.11)	(0.10)	(0.07)	(0.07)
Age	-0.02*	-0.01*	-0.01	-0.01
	(0.01)	(0.01)	(0.00)	(0.00)
Years in Canada	0.05	0.04	-0.03	-0.03
	(0.05)	(0.05)	(0.04)	(0.03)
Full set of controls	Yes	Yes	Yes	Yes
Observations	453	509	638	726
Friendship variable type	Total	Weighted share	Total	Weighted share

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Standard errors are shown in parentheses. Data are weighted to the counts of the Syrian refugee population admitted between 2015 and 2018 by age, educational attainment, and gender.

Table B3: Linear Regression of Early Friendship Networks on Belonging and Employment Skill Gains

	Wave 2 outcomes			
Wave 1 controls	Feel at home (1)	Feel at home (2)	Emp. skill gains (3)	Emp. skill gains (4)
Friendships				
Born Canada (W1)	0.03		**0.11+**	
	(0.05)		**(0.06)**	
Born Syria (W1)	0.03		**0.14****	
	(0.04)		**(0.05)**	
Speak EN/FR (W1)		**0.05****		-0.04
		(0.02)		(0.03)
Speak Arabic (W1)		0.00		0.03
		(0.02)		(0.02)
Female	-0.09	-0.09	0.21*	0.23**
	(0.07)	(0.07)	(0.09)	(0.09)
Age	0.00	-0.00	-0.00	0.00
	(0.00)	(0.00)	(0.01)	(0.01)
Years in Canada	0.04	0.00	0.08+	0.06
	(0.03)	(0.03)	(0.05)	(0.04)
Full set of controls	Yes	Yes	Yes	Yes
Observations	649	738	416	470
Friendship variable type	Total	Weighted share	Total	Weighted share

Notes: +p < .10 *p < .05 **p < .01 ***p < .001. Standard errors are shown in parentheses. Data are weighted to the counts of the Syrian refugee population admitted between 2015 and 2018 by age, educational attainment, and gender.