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IMMIGRANT NETWORKING AND COLLABORATION:  
SURVEY EVIDENCE FROM CIC

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**ABSTRACT**

Networking and the giving and receiving of advice outside of one's own firm are important features of entrepreneurship and innovation. We study how immigrants and natives utilize the potential networking opportunities provided by CIC, formerly known as the Cambridge Innovation Center. CIC is widely considered the center of the Boston entrepreneurial ecosystem. We surveyed 1,334 people working at CIC in three locations spread across the Boston area and CIC's first expansion facility in St. Louis, MO. Survey responses show that immigrants value networking capabilities in CIC more than natives, and the networks developed by immigrants at CIC tend to be larger. Immigrants report substantially greater rates of giving and receiving advice than natives for six surveyed factors: business operations, venture financing, technology, suppliers, people to recruit, and customers. The structure and composition of CIC floors has only a modest influence on these immigrant versus native differences.

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# 1 Introduction

High-skilled immigrants are a substantial and growing share of U.S. innovation and entrepreneurship, accounting for about a quarter of U.S. patents and firm starts. While recent research has begun to quantify these broad contributions and measure traits of the types of firms created (e.g., Brown et al., 2018; Kerr and Kerr, 2017, 2018), many important factors about the innovation and entrepreneurial processes used by immigrants versus natives and how they interact are less explored.

We examine a particularly important feature—networking and the giving and receiving of advice outside of one’s own firm. Individuals working on new concepts, be they embodied in a new growth-oriented firm or a technology being developed in an established company, must acquire and integrate new knowledge. A frequent explanation for the clustering of innovative activity both nationally (e.g., Silicon Valley vs. Bismarck) and locally (e.g., Kendall Square vs. the South Shore in the Boston area) is the information spillovers and knowledge externalities that collocation with other innovators can provide. Entrepreneurs also cite access to knowledge and beneficial networks as one rationale for joining co-working spaces, incubators and accelerators, and similar facilities, sometimes at a higher rent for the space. The degree to which immigrants and natives differ on these dimensions is unknown but also important for understanding the implications of a rising share of immigrants in our innovative workforce.

We study how immigrants and natives utilize the potential networking opportunities provided by CIC, formerly known as the Cambridge Innovation Center. CIC is widely considered the center of the Boston entrepreneurial ecosystem, with its first facility and headquarters being in Kendall Square adjacent to MIT. Many well-known ventures have emerged from CIC, including Android (purchased by Google), Carbonite, and Hubspot. Start-ups begun at CIC have raised over \$7 billion in venture capital funding and produced thousands of patents since its founding in 2001. To get a sense of this scale, the venture capital raised by CIC firms exceeds the amounts raised in most U.S. states. CIC is also home to the labs and satellite offices of many large companies, with products such as Siri rumored to have been developed there. CIC offers many formal and informal networking opportunities, including the weekly Venture Cafe where local entrepreneurs and innovators gather to network and hear talks.

In collaboration with CIC leadership, we surveyed people working at CIC in three locations spread across the Boston area and CIC’s first expansion facility in St. Louis, MO. A total of

1,334 people participated in the survey (a 24% response rate). The survey included extensive questions about the background of individuals (including education and place of birth), the traits of their firms, their networking attitudes and behaviors both within and outside of CIC, their expectations for their company's future, and their personality traits. CIC leadership was particularly interested in learning about the reasons why entrepreneurs chose to locate their firm at CIC, and what value CIC was creating for their ventures.

We consider in this paper the networking attitudes and behaviors of immigrant entrepreneurs, inventors, and other employees at CIC, as contrasted to their native counterparts. There are lengthy literatures on immigrant self-employment and entrepreneurship and on the importance of networking for business outcomes. Yet, very little is known about the different ways in which immigrant and native founders access business networks and how they utilize such connections to benefit their ventures. Immigrants operating in a new business environment may show a heightened dependency on the connections available to them through their office location relative to natives more familiar with the local area. CIC provides a unique laboratory to study these questions given our survey's ability to track both formal and informal networking in a detailed manner.

Survey responses show that immigrants value the networking capabilities at CIC more than natives. This finding (and the others to be described below) are true in the sample averages and also in regressions that condition on person and firm traits and introduce fixed effects for each floor in a CIC building. There is suggestive evidence that immigrants are more likely to locate in CIC for the networking potential, and either way, there is robust evidence that immigrants perceive greater networking benefits and access to other companies as an important contributor to their work derived by locating at CIC.

Networks developed at CIC by immigrants tend to be one person larger than those of natives, on average, but these differences are rarely statistically significant. When asked to list the location of their five most important contacts, immigrant and native entrepreneurs at CIC display mostly similar reliance on CIC itself. For contacts outside of CIC, immigrant entrepreneurs are substantially more likely to list overseas locations, while native entrepreneurs are over-represented in terms of contacts elsewhere in the United States.

Looking at networking behavior inside CIC, the largest differences are found in the degree to which immigrants both give advice to and receive advice from people within CIC who work

outside of their company. For both of these actions, immigrants report substantially greater rates of information exchange than natives for six surveyed factors: business operations, venture financing, technology, suppliers, people to recruit, and customers. On providing advice, the immigrant differential to natives is highest on business operations and customers and lowest on venture financing. On receiving advice, the differential is highest on venture financing and customers, and lowest on suppliers and technology.

Our last set of analyses considers the specific traits of CIC building floors on which the company offices of immigrants and natives are located, to see if they interact differently with floor-level environments. The floors within each CIC facility can have a very different feel or purpose: for example, one floor may be more populated with larger, fixed office spaces suitable for established teams, while another floor is a co-working space designed for very small and frequently changing teams or individual entrepreneurs. Conditional on the match of a client's needs to a type of space, the specific floor and office allocation is otherwise based upon availability and often has a degree of randomness.

In the building floor analysis, we measure six traits of each floor: inventor percentage, immigrant percentage, average age, female percentage, average firm size, and total number of firms. Controlling for floor fixed effects, we interact these traits with an indicator for whether the respondent is an immigrant, to observe whether there is heterogeneity in the immigrant differential due to the various floor characteristics. We do not find evidence that floor traits matter for the strength of the immigrant-native differential with respect to networking. There is some evidence that the greater degree to which immigrants give and receive advice is accentuated on floors that have a high fraction of inventors, but the more important finding is that these floor-level shaping factors are second order to the main effects.

The next section provides a short literature review. Section 3 describes CIC and our survey instrument in detail. Section 4 presents the main empirical findings, and Section 5 concludes.

## **2 Literature Review**

Entrepreneurs can strongly benefit from collocating with other entrepreneurs, as is evident in Silicon Valley, Boston, North Carolina's Research Triangle, and many other industrial clusters. Extensive literature documents the importance of networking within such clusters and the potential location advantages for entrepreneurs in terms of innovation and discovery, securing

financing and other resources, and increasing the performance of their ventures.<sup>1</sup> Katz and Wagner (2014) provide a summary on the more recent concept of “innovation district” that has become very popular with cities; the authors explain how network considerations are a large part of why such start-up company collocations are proving successful.<sup>2</sup>

Many scholars argue that networks are particularly important at the start-up phase of a business, when good advice and connections to financing are most valuable.<sup>3</sup> Four kinds of social networks are typically discussed in the literature, including family, collegial, transnational, and ethnic networks. One strand of the networking literature has focused on the effect of networking activity on business outcomes and firm performance, and another strand has evaluated the various factors influencing networks’ formation and their functioning.<sup>4</sup> Explanations for why belonging to a network improves firm performance include the provision of a source of competitive advantage, reduced transaction costs, and enhanced access to knowledge and resources.<sup>5</sup> Given the many potential mechanisms, the importance of networks is likely to vary greatly across heterogeneous firms.

While most of the literature does not differentiate between immigrant and native entrepreneurs, extensive research quantifies that individuals from similar backgrounds tend to network with each other, a phenomenon that is called “homophily” (e.g., McPherson, Smith-Lovin, and Cook, 2001). From the point of view of an immigrant entrepreneur, this may mean that there are fewer obvious network connections available in many foreign locations as compared to a typical native in the same location, and ethnicity has been found to be an important dimension of homophily in entrepreneurial founding teams.<sup>6</sup> Some studies argue that heightened interaction among immigrant networks can explain why immigrant entrepreneurs cluster

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<sup>1</sup>For example, Witt (2007), Elfring and Hulsink (2003, 2007), Powell, Koputt, and Smith-Doerr (1996), Balconi, Breschi, and Lissoni (2004), Breschi and Lissoni (2005, 2009), Glaeser and Kerr (2009), Kerr and Kominers (2015), Greve and Salaff (2003), Sorenson (2005), Aldrich and Reese (1993), Carlino and Kerr (2015), and Aldrich et al. (1987).

<sup>2</sup>Katz, Vey, and Wagner (2015) further argue that the economic, physical, and networking assets within those districts create the innovation ecosystem that makes them so valuable. Chatterji, Glaeser, and Kerr (2014) discuss the policy environments that support innovation districts.

<sup>3</sup>For example, Davidson and Honig (2003), Aldrich and Zimmer (1986), Kim and Aldrich (2005), Uzzi (1999), Sharir and Lerner (2006), and Weber and Kratzer (2013).

<sup>4</sup>For example, Hoang and Antoncic (2003), Ahuja (2000), Calvó-Armengol et al. (2009), Fershtman and Gandal (2011), Jack (2010), Jack et al. (2010), and Gandal and Stettner (2016).

<sup>5</sup>For example, Dyer and Singh (1998), Lin and Lin (2016), Gulati and Higgins (2003), Zaheer and Bell (2005), Vanhaverbeke et al. (2009), Schott and Jensen (2016), McDonald, Khanna, and Westphal (2017), and Mazzola et al. (2016).

<sup>6</sup>For example, Aldrich and Waldinger (1990), Wilson and Martin (1982), Ruef, Aldrich, and Carter (2003), Hegde and Tumilson (2014), and Gompers, Huang, and Wang (2017).

their businesses in certain locations and industries.<sup>7</sup> Saxenian (2000) describes how Chinese and Indian immigrant networks in Silicon Valley promoted the extensive clustering of Chinese and Indian high-tech entrepreneurs in the small geographic area. Despite the large share of immigrant-owned businesses (e.g., Kerr and Kerr, 2018), immigrant entrepreneurs in the U.S. tend to have a smaller network to draw upon when seeking financing, mentors, partners, employees or clients than do typical native-born entrepreneurs (Rajjman and Tienda, 2000).

A complete literature review on business networks spans many disciplines from economics and sociology to management science and regional analysis.<sup>8</sup> This study contributes in important and novel ways. We provide a rare economics-based view into how immigrant entrepreneurs network and how their networking behavior differs from native entrepreneurs. We further compare immigrant entrepreneurs to natives working in the same facility, which is a new empirical approach in this research space. Our CIC sample is both large and also focused on companies that tend to be very innovative and growth-oriented, which is difficult to accomplish in many settings. Finally, we complement earlier analyses on the successful ability of immigrant entrepreneurs to network by providing evidence that links the networking behavior to personality traits and other characteristics of the individual and the firm.<sup>9</sup>

### **3 CIC and Survey Instrument**

#### **3.1 CIC History and Operations**

CIC was founded in its present format in 2001, known then as the Cambridge Innovation Center. The first facility, known by its address of One Broadway, is in a building adjacent to and owned by MIT. The founders, Tim Rowe and Andy Olmsted, had previously established a “foundry” incubator at the spot. While the foundry model was unsuccessful, Rowe and Olmsted pivoted into what is now often labeled a co-working model, being among the first of

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<sup>7</sup>For example, Light, Bhachu, and Karageorgis (1989), Saxenian (2002), Kalnins and Chung (2006), Chand and Ghorbani (2011), Aliaga-Isla and Riap (2013), Kloosterman, van der Leun, and Rath (1998), Salaff et al. (2003), Kremel (2016), and Kerr and Mandorff (2015). Immigrant clustering for innovation is also observed in Hunt and Gauthier-Loiselle (2010), Kerr and Lincoln (2010), Peri, Shih, and Sparber (2015), and Kerr (2018).

<sup>8</sup>Summaries include Branstetter, Gandal, and Kuniesky (2017), Cisi et al. (2016), and Hoang and Antoncic (2003). Recent studies have, for example, focused on the relationship between network structure and behavior (Ballester, Calvó-Armengol, and Zenou, 2006; Calvó-Armengol and Jackson, 2004; Goyal, van der Leij and Moraga-Gonzalez, 2006; Jackson and Yariv, 2007; Karlan et al., 2009) as well as the relationship between network structure and business performance (Ahuja, 2000; Calvó-Armengol, Patacchini, and Zenou, 2009; Fershtman and Gandal, 2011; and Gandal and Stettner, 2016).

<sup>9</sup>See Åstebro et al. (2014) and Kerr, Kerr, and Xu (2018) for reviews of literature.

its kind.

CIC today offers clients office management services that are flexible in design and month-to-month in duration. CIC rentals include access to “hardware” features like fully-stocked communal kitchens, regular and 3D printing, hardware tool shops, conference rooms, and IT and communications infrastructure. CIC also encourages extensive “software” features for its clients through formal and informal networking opportunities, lectures on topics related to start-ups and innovation, recreational classes like yoga, and proximity to funders, law firms, and other service providers. A complete history of CIC and its present operations are included in the Kerr, Kerr, and Brownell (2017a,b) case studies.

The closest comparison to CIC are co-working spaces like WeWork that have risen to popularity with the “sharing economy.”<sup>10</sup> Relative to an operation like WeWork, CIC has both higher-touch services and typically greater price points. The model of CIC also emphasizes a growth in a company’s spaces over time (reconfiguring offices during expansions or contractions) and serving a broader population of clients. CIC houses start-ups, single individuals in co-working spaces, not-for-profit organizations, law firms, venture investors, and satellite offices for large corporations. Amazon, Apple, Bayer, Google, PwC and Shell are examples of current and past larger clients. The for-profit CIC is widely recognized as the anchor for Boston’s entrepreneurship and innovation ecosystem, with its weekly Venture Café happy hour regularly drawing several hundred participants.

CIC prides itself on housing “more start-ups than anywhere else on the planet.” The company is now in three locations in the Boston area, along with setting up independent entities connected to wet lab spaces and civic meeting spaces. At the One Broadway location, CIC has grown from one floor to its current seven. CIC expanded to St. Louis in 2014, and it has recently opened facilities in Miami, Rotterdam, and Philadelphia. It will open a Providence center in 2019, as part of an aggressive growth plan to reach 50 cities by 2026 (Kerr et al., 2017a,b).

CIC’s clients are substantially more innovative and high-potential than the average venture in the Boston area. Guzman and Stern (2016, 2017) measure the likely potential of start-ups using digital signals available in their incorporation documents. Ventures registering as C-Corps or in Delaware are more likely to be targeting rapid growth than other companies, and

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<sup>10</sup>Related literature on incubators and accelerators includes Aernoudt (2004), Bruneel et al. (2012), Colombo and Delmastro (2002), Gandini (2015), Grimaldi and Grandi (2005), and Peters et al. (2004).



the names of ventures also indicate aspirations—for example, a venture named “Infinity Global Technologies” is more likely to target growth than one named “Billy’s Bicycle Shop.” During the 2010-2012 period, the ventures registered at CIC had a growth potential score using this technique that was eight-fold higher than the average Boston-area firm, and CIC ventures were ten-fold more likely to have a patent at the outset or be a Delaware-incorporated firm.<sup>11</sup>

### **3.2 CIC Survey Design**

The scale and diversity of CIC offer a unique platform to study entrepreneurs, inventors, and employees working in innovative enterprises. We conducted a survey in 2017 of clients at four CIC locations, pulling from Cambridge, Boston, and St. Louis. The survey was designed in collaboration with the leadership team at CIC. CIC’s client agreement allows them to survey tenants once per year, with responses being voluntary, and this survey served this function. It was launched during spring 2017 and remained open for 13 weeks.

In efforts to increase participation, CIC sent out one reminder email per location to clients encouraging them to participate. CIC also hosted a pizza lunch at the 101 Main Street location where one researcher handed out fliers, discussed the survey’s goals, and had laptops available to fill out the survey. Reminders tended to increase participation for a short while, and CIC leadership made the decision to not send further inquiries and decided when to end the survey.

Table 1 describes the surveyed locations. The survey was sent to 5,645 individuals, of which about 20% were identified by the firms as “Heads” to CIC (e.g., for the purposes of directing official correspondence). The average firm has 4.8 people and has been at CIC for 2.8 years, with clients in the longest running One Broadway and 101 Main Street locations in Cambridge having stayed longer on average. St. Louis houses larger firms on average, reflecting its lower use of individual co-working spaces. 50 Milk Street, a location in the financial district of Boston, contains the largest share of nonprofit companies, about 19% of all clients.

A total of 1,334 people participated in the survey for a 24% response rate. The first survey question required respondents to categorize themselves as an Employee, Founder and/or CEO, Owner, or Other (e.g., board member, advisor). Those who designated themselves as an employee received a shorter set of questions than the other three categories, which were given the same question set. The full survey instrument is included in the Appendix.

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<sup>11</sup>We thanks Jorge Guzman for these calculations.

First, we use the term “entrepreneur” as short-hand to group all non-employee responses, whether founder, CEO, or owner. Going forward in this analysis, we exclude those reporting their role as “Other” for a sample size of 1,222 responses. This latter category is harder to define and frequently captures people with relatively limited day-to-day activity at CIC (e.g., a MIT professor who mostly remains on campus). Second, we use the term “inventor” for those who report having personally filed a patent, and this trait is orthogonal to the entrepreneur versus employee distinction. Approximately 31% of respondents are entrepreneurs and 22% are inventors.

Our analysis focuses on differences between natives and immigrants, and we define immigrants as those who report they were born outside of the United States. The overall immigrant share is 26% in the sample. This definition includes individuals who arrived in the country as children as well as those who came to the United States later in life to study, work, or to directly start a business. The total number of immigrant respondents is 262, with 82 identified as entrepreneurs and 180 as employees. Of the 262 immigrants, 85 are inventors.

Table 2 describes survey responses by location. Response rates were between 16% and 24% across locations. We later learned that some individuals in nonprofit firms felt the survey did not apply to them, which is one reason for the lower response rate in 50 Milk Street. The immigrant share of respondents is approximately one-third in all three Boston facilities and much lower at 5.5% in St. Louis. The immigrant share of the CIC sample is about double their 13% share of U.S. population, reflective of their greater role in innovation and entrepreneurship.<sup>12</sup> The shares are also in keeping with their local areas: using the 2014-2016 American Community Surveys, the immigrant shares in Boston and St. Louis among employed, college-educated workers aged 20-60 are 18.4% and 7.6%, respectively; narrowing to those in STEM fields, the shares increase to 33.5% and 17.8%, respectively. The overall CIC sample is about 60% male, 61% between the ages of 25 and 44, and 19% holders of advanced degrees.

### **3.3 Survey Responses and Sample Comparisons**

Table 3 provides detailed demographics and backgrounds for the whole sample and also splits by immigrant versus native respondents. In some cases, the overall average will not exactly match the weighted average of the two groups due to individual respondents choosing to not

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<sup>12</sup>For example, Singer (2013), Kerr and Kerr (2017, 2018), and Brown et al. (2018).

report specific variables. Differences do emerge immediately, with natives being slightly more likely to be entrepreneurs at CIC companies, and immigrants almost twice as likely to be inventors.

In terms of demographics, natives are more likely to be female, white, at either extreme of the age distribution, a bachelor's or masters degree holder, and with degrees in business and economics. They also are slightly more likely to have prior industry experience but less likely to have previous start-up experience either as an employee or a founder. In comparison, immigrants tend to be clustered between ages 25 and 54, are more likely to have a doctorate and to have studied in STEM fields, and also more likely to have previous start-up experience, especially as an employee. Using the National Survey of College Graduates, Hunt (2011) links the higher rates of immigrant inventiveness especially to their fields of study and educational attainment.

CIC itself does not collect similar demographic information on its client population, but CIC's leadership believes that our survey respondent demographics reflect the overall population of their facilities very well. Some greater insight does exist for the gender dimension. A 2015 CIC study found that 28% of Company Heads were women, which is roughly on par with the 24% among our respondent entrepreneurs. Similarly, a 5% random sample of CIC clients in 2017 showed that 35% of all CIC-based company employees were women, which closely compares to the 40% share in our sample. To put things into a broader context, other comparison points for women's leadership include 5.4% of Fortune 500 CEOs, 24% of Congressional representatives, and 12% of Executive Officer positions in the top 15 Silicon Valley firms.<sup>13</sup>

Once starting the survey, response rates were high for most questions. Questions regarding experiences at CIC and demographics had response rates of over 80%, while questions regarding personality had response rates of over 75%. Questions with the lowest response rates included those related to patents associated with the firm and interest in future CIC events. We believe that response rates for patenting activity of the firm were lower because the question lacked a "do not know" option. These fields are not used in the present study.

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<sup>13</sup>For example, Zarya (2016), Brown (2017), and Bell and White (2014). See <http://www.pewresearch.org/fact-tank/2018/12/18/record-number-women-in-congress/>.

## 4 Survey Results

### 4.1 Measuring Networking Attitudes and Behaviors

We next describe how the survey captured attitudes towards networking and the importance of networking opportunities in the choice to locate the company within CIC. Table 4 provides the survey questions used to calculate the values for most of the variables analyzed below, and the Appendix has the full survey instruments for additional reference. Figures 1-3 display the response patterns by immigrant status. We group questions into three sets, and these sets rely on questions from different parts of the survey and are not necessarily sequential in how they are presented in this paper.

We group the first set of questions around the respondents' self-reported perceptions of CIC networking benefits. Respondents were asked to rate aspects of CIC in terms of their importance for the decision to locate the company there, with value one (1) being "not very important" and value five (5) being "very important." A related question asked respondents how being located at CIC has actually helped their business to "Better network among other businesses," on a scale from "not at all" (1) to "very much" (5). Similar five-point scales were used to gauge the purposefulness of individuals' networking; to measure perceptions about how CIC helped them access companies at CIC, within the vicinity of CIC, or in the greater Boston/St. Louis area; and to measure whether respondents see a premium in CIC value-added compared to costs and over other competitors' offering. In all cases, the raw average for the immigrant respondents exceeds that of the natives. Immigrants are more likely to consider networking opportunities an important factor in choosing to locate at CIC and to report having benefited from CIC in this regard.

A second group of questions uses survey responses to infer information on the types of networks possessed by individuals. Respondents were asked to estimate the number of people at CIC (outside of the employees/investors of their own company) they know well enough to believe that these people could be of benefit to their business over the next six months. The scale had again five options ranging from "none" to "over 20." Similarly, respondents estimated how many people at CIC they know well enough to believe they would remember the respondent's name in six months if they left CIC today. The response options were the same as in the previous question. For analysis, we converted the binned values into the mid-points of their range, except for the bottom/top category: "none" coded as zero, "1-4 persons"

coded as three, “5-10 persons” codes as eight, “11-20 persons” codes as 15, and “More than 20 persons” coded as 20. Immigrants report knowing more of both types of individuals at CIC, especially those who are likely to be beneficial to their business (4.9 versus 4.5). Figure 3 plots the cross-sectional pattern of networks by time in CIC. For all respondents who answered that they knew at least one such person, we further asked whether these connections were made before or after joining CIC.

We constructed another measure of networking through the responses of individuals regarding where exactly they networked at CIC. This question was asked of people indicating that CIC helped their business to network at a level of three or higher on a five-point scale. Respondents could tick one or more of the following possibilities: a) Informally: Conversations or introductions at Venture Cafe; b) Informally: Conversations or introductions in a CIC kitchen; c) Other public spaces at CIC; d) Other informal channels; e) Purposefully seek out meetings with firms located inside CIC (ask via email, phone, LinkedIn, . . .); f) Purposefully seek out meetings with firms located nearby / outside CIC (ask via email, phone, LinkedIn, . . .); g) Other CIC-based firms purposefully ask to meet with me; and h) Other. We tallied the number of boxes checked, with immigrants and natives showing very similar values of about 2.9 unique network locations.

At the very end of the survey, we asked the entrepreneurs a rather detailed question about the locations of the respondent’s most important contacts (based on Nanda and Khanna, 2010): “Please think of 5 people not directly connected with your company with whom you have had important conversations related to your business in the last 6 months. These may be family members, friends, former colleagues, instructors or other persons with whom you discussed aspects of your business (e.g., strategy, business development, market conditions, financing) but NOT employees, investors, or clients that have direct stake in the company. Where are these external colleagues located?” The respondent has five options: same floor at CIC, another floor at CIC, within the Boston (St. Louis) area, within the United States, and overseas. Natives were significantly more likely to have their most important connections either in the greater Boston (St. Louis) area or elsewhere in the United States, while immigrants were much more likely to have these important connections abroad.

A third set of questions asked respondents about the frequency at which they either provided or received advice on various aspects of running their business to/from “people outside

of your company at CIC.” The frequency options ranged from “never” (1) to “weekly” (4). Six topic categories were considered: business operations, venture financing, technology, suppliers, people to recruit, and customers. Immigrants report substantially higher rates of both providing and receiving advice on all topics.

The full survey asks many more questions about growth expectations, company financing history, personality traits of individuals and their attitudes towards risk, and so on. Participants were also incentivized to complete the survey with a reward that was designed to also capture an element of their risk attitudes by presenting them with a choice between a sure prize and a lottery of known probabilities. These questions are studied in other papers (e.g., Kerr, Kerr, and Dalton, 2019).

## 4.2 Analytical Results

Tables 5-9 analyze these survey responses with least squares regressions. Each row corresponds to a survey question, and we report eight results per question across the columns. In all cases, we only report the coefficient and standard error on an indicator variable for the respondent being an immigrant. Regressions are unweighted and report robust standard errors, and estimations that cluster standard errors at the firm level deliver very similar results. Columns 1-4 report results where we leave the dependent variable in its raw form, while Columns 5-8 consider transformations of the dependent variable to have a binary form of low versus high responses (given unit value). For each question, we describe the scale of the baseline values and their transformation.

The four columns in each set repeat a pattern. Our initial estimation controls for person-level covariates and building fixed effects. Person-level covariates include controls for gender, age, race, educational attainment, full- versus part-time status, prior industry experience, prior startup experience, and prior patenting history. Covariates are introduced using indicators for value ranges; item non-response was grouped into an “unknown” category. The second estimation incorporates fixed effects for individual CIC floors within buildings. Across the four buildings, there are a total of 20 floors in our sample. The third estimation adds an additional firm-level control for the number of the firm’s employees working at CIC. The last analysis excludes St. Louis from the analysis to focus just on Boston given the substantial differences between the two cities in terms of immigrant share and other features. At the right

hand side of each table, we report the observation counts in total and for Boston only.

Table 5 considers the perceptions of networking at CIC by immigrants versus natives. The perceptions of respondents have several attractive properties: they capture the benefits and costs known by respondents but unobservable to the researcher or CIC leadership, they measure the saliency of an effect that is otherwise difficult to judge, and (for the purposes of CIC) they are what ultimately matters for the company’s location choice at CIC. The downsides of these perceptions are the mirror images of the advantages, most notably being that respondents may have an inaccurate understanding of their true networking behavior or they may engage in “cheap talk.”

The variables reported in Table 5 are measured on a five-point scale ranging from “strongly disagree” (1) to “strongly agree” (5) or comparable wording. For the binary analysis, we group scores of four or five into the high bin that is given a unit value. The first row presents some indication that immigrants may locate their businesses at CIC for better networking opportunities, and this pattern is most evident in the binary analysis. Either way, immigrants in the second row show substantially higher perceptions of CIC helping their business via networking than natives. The differential is on the order of 10% of the baseline average of 3.67 in Table 4. Immigrants show a similarly higher purposefulness in building their networks.

When respondents articulate the location of the other companies that CIC specifically helps them access, a modest edge is given to other companies located within CIC, although an important immigrant differential is also observed for accessing other local non-CIC firms. As the baseline value in Table 4 is rising from 3.26 for companies within CIC to 3.63 for non-vicinity companies in the greater Boston/St. Louis area, the relative effect for immigrants of CIC-based connections is higher than initially evident in Table 5. These results are robust in both the baseline and binary analyses. Finally, immigrants are somewhat more likely to consider CIC benefits as outweighing the costs and/or what other local co-working spaces could provide, but these results are not precisely measured.

Table 6 turns to measures that we can construct of actual networking behavior at CIC. This is a useful complement to the perceptions of networking, given the pros and cons noted above. The first metrics consider the person counts within a respondent’s CIC network outside of the respondent’s own company. These person count questions allowed for five ranges from “none” to “more than 20.” Baseline estimations use the mid-points of these ranges, as described

earlier, with zero for the smallest and 20 for the largest category. The binary analysis combines responses with eleven or more persons as the high category.

Immigrants report on average a 0.6 person larger professional network at CIC, compared to a baseline average of 4.5 persons. This difference is about twice as large as the second form of the question that was designed to elicit familiarity with those around a respondent (baseline average of 5.9 persons). While we do not know the overlaps of these two groups, we also report a regression that sums the two counts. Across all these outcomes, there is some modest evidence that CIC enables a larger professional network for immigrants than it does for natives, perhaps with a total network advantage of 0.5-1.0 person. But these results are not precisely measured and should be treated with caution. By contrast, and reflecting the identical raw responses in Table 4, we observe no difference between immigrants and natives in terms of the count of locations or the types of networking employed.

In general, the differential in immigrant perceptions of CIC networking advantages in Table 5 appear a bit more robust than the actual network effects in Table 6. Two factors, however, should be noted. One is that the relative magnitudes of the point estimates in Table 6 are substantial for the professional network, on the order of 10%-20% of the effect, and comparable to perception differences. Second, the counterfactual for network size is hard to define. It could have been that absent CIC's networking potential, the professional networks of immigrants would have been substantially smaller than those of natives; yet we are only able to measure these differences conditional on being inside of CIC.

Table 7 considers immigrant differences using the additional networking questions that were asked of entrepreneurs only. These leaders were first asked to rate the importance of the five most significant people they met at CIC for their business. Immigrants suggest that these five contacts are marginally more important, but the differences are far from statistically significant.

Second, we analyze differences in the top five contacts that entrepreneurs have by counting up the number of contacts mentioned in each location. This count can range from zero to five for any one location, and for the binary analysis we group three and above contacts into the high category. Table 7 first analyses the five options as asked in the survey, and then an additional analysis is provided that groups the same floor and another floor responses at CIC into a single outcome. There are substantial differences in the locations of top entrepreneur



contacts, with immigrant entrepreneurs pointing significantly more to overseas contacts versus those in the local area surrounding CIC. Network reliance on CIC itself is comparable for the two groups.

Tables 8 and 9 turn to our third set of questions on the giving and receiving of advice across six broad topics: business operations, venture financing, technology, suppliers, people to recruit, and customers. Table 4 noted that immigrants reported substantially higher rates of exchanging advice on all these dimensions. Baseline responses are on a four-point scale from “never” (1) to “weekly” (4). The binary analysis bins responses other than “never” into the high category.

Tables 8 and 9 confirm that these differences are robust to controlling for the other traits of individuals, companies, and the floors on which respondents work. As the average baseline value for most of these variables is on the order of 1.8 in Table 4, these quantified differences are often 10% or greater. On providing advice, the immigrant differential to natives is highest on business operations and customers and lowest on venture financing. On receiving advice, the differential is highest on venture financing and customers, and lowest on suppliers and technology. But these differences are small relative to the larger context of high rates of giving and receiving advice.

We have conducted a number of robustness checks on these analyses. We condensed our regression tables by only showing Boston-specific results for the full specification with person- and firm-level covariates, and the comparability carries through on other regression variants, too. Adding St. Louis to the sample tends to raise slightly the immigrant differential, indicating a modestly greater immigrant reliance in St. Louis on CIC networking than in Boston.

We introduce person- and firm-level controls via indicator variables for ranges, and we kept missing values via an unknown category to maintain consistent sample sizes across columns. Our results are robust across these design choices, which is not surprising given the raw effects evident in Table 4 alongside the substantial coefficients observed in regression analyses.

In terms of additional covariates, we also find very similar results when including the binary response by a respondent if the network was pre-known before coming to CIC. We have also run analyses where we control for the tenure of an individual at CIC. These analyses are quantitatively similar in aggregate, with effects growing or shrinking modestly on some outcomes. There is sufficient risk for over-controlling with these variables (e.g., we do not

know what fraction of a respondent’s network is pre-known before locating at CIC) that we have left them out of the baseline results reported here.

### 4.3 Extended Analysis

Our last set of analyses is not formally reported but qualitatively described. These analyses consider traits of CIC floors on which immigrants and natives are located to see if they interact differently with floor-level environments. The floors within a CIC facility have different feels or purposes: for example, one floor may be more populated with larger, fixed office spaces suitable for established teams, while another floor is co-working space designed for very small teams or individual entrepreneurs. Some of these floor-level differences are intentional, while others are due to legacy layouts of buildings. Conditional upon the match of a client’s needs to a type of space, allocation to a specific office is otherwise based upon availability and often has some randomness.

We measure six traits of each floor: inventor percentage, immigrant percentage, average age, female percentage, average firm size, and total number of firms. The measures are derived from respondent data for floors. We control for floor fixed effects, which captures the main effects of these variables, and we interact these floor-level traits with whether a respondent is an immigrant to observe whether there is heterogeneity in the immigrant differential due to various floor characteristics. We restrict this analysis to floors where 15 or more people responded to the survey. We further drop St. Louis due to some limitations on our floor information for this facility and its overall very different immigrant background.

The most important finding from these analyses are null results for interactions; that is, the immigrant differential captured in this paper mostly operates independently of the floor environment. As important, we specifically find evidence that the differential for immigrant networking and giving and receiving advice does not depend upon the immigrant being on a floor with many other immigrants. Thus, while we do not observe the immigrant and native components of a respondent’s network, we have reason to believe the networks are not strongly segmented in CIC. There is some evidence that the greater degree to which immigrants give and receive advice is accentuated on floors that have a high fraction of inventors, but the more important finding is that these floor-level shaping factors are second order to the main effects. We conclude that floor traits do not shape the strength of the immigrant differential with

respect to networking.

## 5 Conclusion

Networking and the giving and receiving of advice are important for entrepreneurship and innovation. Our analysis of CIC finds that immigrants take more advantage of networking opportunities at CIC, especially around the exchange of advice. This effect is quite robust, holding in the raw data and tightly controlled specifications, and it does not appear to be mediated very much by floor-level traits. We are not able to assess whether this generates long-term performance advantages for immigrants, but it at least leads them to value CIC to a greater extent than natives.

Looking forward, we hope other researchers continue to examine differences in behaviors of immigrants within entrepreneurship and innovation compared to natives. It is now well established that immigrants are a large and growing component of the U.S. science and engineering workforce, and they have comparable overall quality on many dimensions to natives engaged in the field. But there remains much to be explored about how their preferences and interactions shape the communities of which they are becoming an ever larger share.

## References

- Aernoudt, R. (2004). "Incubators: Tool for entrepreneurship?" *Small Business Economics* 23: 127-135.
- Ahuja, G. (2000). "Collaboration networks, structural holes, and innovation: A longitudinal study." *Administrative Science Quarterly* 45(3): 425-455.
- Aldrich, H.E., B. Rosen, and W. Woodward. (1987). "Impact of social networks on business foundings and profit: A longitudinal study." In N.S. Churchill, J. Hornaday, O.J. Krasner, and K. Vesptter (eds.), *Frontiers of Entrepreneurship Research*, 154-168. Wellesley, MA: Center for Entrepreneurial Studies.
- Aldrich, H.E., and P.R. Reese. (1993). "Does networking pay off? A panel study of entrepreneurs in the research triangle in Churchill, N. C." In S. Birley, J. Doutriaux, E.J. Gatewood, F.S. Hoy, and W.E. Wetzel (eds.), *Frontiers of Entrepreneurship Research*, 325-339. Wellesley, MA: Babson College.
- Aldrich, H.E., and R. Waldinger. (1990). "Ethnicity and entrepreneurship." *Annual Review of Sociology* 16(1): 111-135.
- Aldrich, H.E., and C. Zimmer. (1985). "Entrepreneurship through social networks." In R. Smilor and D. Sexton (eds.), *The Art and Science of Entrepreneurship*, 3-23. New York, NY: Ballinger.
- Aldrich, H.E., and C. Zimmer. (1986). "Entrepreneurship through social networks." In H. Aldrich (ed.), *Population Perspectives on Organizations*, 13-28. Uppsala: Acta Universitatis Upsaliensis.
- Aliaga-Isla, R., and A. Riap. (2013). "Systematic review of immigrant entrepreneurship literature: Previous findings and ways forward." *Entrepreneurship & Regional Development* 25(9-10): 819-844.
- Åstebro, T., H. Herz, R. Nanda, and R.A. Weber. (2014). "Seeking the roots of entrepreneurship: Insights from behavioral economics." *Journal of Economic Perspectives* 28(3): 49-70.
- Balconi, M., S. Breschi, and F. Lissoni. (2004). "Networks of inventors and the location of academic research: An exploration of Italian data." *Research Policy* 33(1): 127-45.
- Ballester C., A. Calvó-Armengol, and Y. Zenou. (2006). "Who's who in networks. Wanted: The key player." *Econometrica* 74(5): 1403-1417.
- Bell, D.A., and S.S. White. (2014). *Gender Diversity in Silicon Valley: A Comparison of Silicon Valley Public Companies and Large Public Companies*. Fenwick and West LLP.
- Branstetter L., N. Gandal, and N. Kuniesky. (2017). "Network-mediated knowledge spillovers: A cross-country comparative analysis of information security innovations." NBER Working Paper No. 23808. Cambridge, MA: National Bureau of Economic Research.
- Breschi, S., and F. Lissoni. (2005). "Cross-firm inventors and social networks: Localised knowledge spillovers revisited." *Annales d'Economie et de Statistique* 79/80: 189-209.
- Breschi, S., and F. Lissoni. (2009). "Mobility of inventors and networks of collaboration: An anatomy of localised knowledge flows." *Journal of Economic Geography* 9(4): 439-468.
- Brown, A. (2017). "Despite gains, women remain underrepresented among U.S. political and business leaders." In Pew Research Center. Retrieved from <http://www.pewresearch.org/fact-tank/2017/03/20/despite-gains-women-remain-underrepresented-among-u-s-political-and-business-leaders/>.
- Brown, J.D., J.S. Earle, M.J. Kim, and K.-M. Lee. (2018). "Immigrant entrepreneurs, job creation, and innovation." Census Bureau Working Paper. Washington, DC.
- Bruneel, J., T. Ratinho, B. Clarysse, and A. Groen. (2012). "The evolution of business incubators: Comparing demand and supply of business incubation services across difference incubator generations." *Technovation* 32: 110-121.

- Calvó-Armengol, A., and M.O. Jackson. (2004). “The effects of social networks on employment and inequality.” *American Economic Review* 94(3): 426-454.
- Calvó-Armengol, A., E. Patacchini, and Y. Zenou. (2009). “Peer effects and social networks in education.” *Review of Economic Studies* 76(4): 1239-1267.
- Carlino, G., and W.R. Kerr. “Agglomeration and innovation.” In G. Duranton, J.V. Henderson, and W.C. Strange (eds.), *Handbook of Regional and Urban Economics Volume 5*, 349-404. Elsevier.
- Chand, M., and M. Ghorbani. (2011). “National culture, networks and ethnic entrepreneurship: A comparison of the Indian and Chinese immigrants in the US.” *International Business Review* 20(6): 593-606.
- Chatterji, A., E.L. Glaeser, and W.R. Kerr. (2014). “Clusters of entrepreneurship and innovation.” In J. Lerner and S. Stern (eds.), *Innovation Policy and the Economy, Volume 14*, 129-166. Chicago, IL: University of Chicago Press.
- Cisi, M., F. Devicienti, A. Manello, and D. Vannoni. (2016). “Network agreements and firms’ economic performance: New empirical evidence from Italian SMEs.” Working paper 039. Department of Economics and Statistics, University of Torino.
- Colombo, M.G., and M. Delmastro. (2002). “How effective are technology incubators? Evidence from Italy.” *Research Policy* 31: 1103-1122.
- Davidsson, P., and B. Honig. (2003). “The role of social and human capital among nascent entrepreneurs.” *Journal of Business Venturing* 18(3): 301-331.
- Dyer, J.H., and H. Singh. (1998). “The relational view: Cooperative strategy and sources of interorganizational competitive advantage.” *Academy of Management Review* 23(4): 660-679.
- Elfring, T., and W. Hulsink. (2007). “Networking by entrepreneurs: Patterns of tie-formation in emerging organizations.” *Organization Studies* 28: 1849-1866.
- Elfring, T., and W. Hulsink. (2003). “Networks in entrepreneurship: The case of high-technology firms.” *Small Business Economics* 21: 409-422.
- Fershtman, C., and N. Gandal. (2011). “Direct and indirect knowledge spillovers: The “social network” of open-source projects.” *The RAND Journal of Economics* 42(1): 70-91.
- Gandal, N., and U. Stettner. (2016). “Network dynamics and knowledge transfer in virtual organizations.” *International Journal of Industrial Organization* 48: 270-290.
- Gandini, A. (2015). “The rise of coworking spaces: A literature review.” *ephemera* 15(1): 193-205.
- Glaeser, E.L., and W.R. Kerr. (2009). “Local industrial conditions and entrepreneurship: How much of the spatial distribution can we explain?” *Journal of Economics & Management Strategy* 18(3): 623-663.
- Gompers, P.A., K. Huang, and S.Q. Wang. (2017). “Homophily in entrepreneurial team formation.” Harvard Business School Working Paper No. 17-104.
- Goyal, S., M.J. Van Der Leij, and J.L. Moraga-Gonzalez. (2006). “Economics: An emerging small world.” *Journal of Political Economy* 114(2): 403-412.
- Greve, A., and J. W. Salaff. (2003). “Social networks and entrepreneurship.” *Entrepreneurship: Theory and Practice* 28(1):1-22.
- Grimaldi, R., and A. Grandi. (2005). “Business incubators and new venture creation: An assessment of incubating models.” *Technovation* 25: 111-121.
- Gulati, R., and M. Higgins. (2003). “Which ties matter when? The contingent effects of interorganizational partnerships on IPO success.” *Strategic Management Journal* 24(2): 127-144.
- Guzman, J., and S. Stern. (2017). “Nowcasting and placecasting entrepreneurial quality and performance.” In J. Haltiwanger, E. Hurst, J. Miranda, and A. Schoar (eds.), *Measuring Entrepreneurial Businesses: Current Knowledge and Challenges*, 63-109. NBER Book Series Studies in Income and Wealth, Cambridge MA.

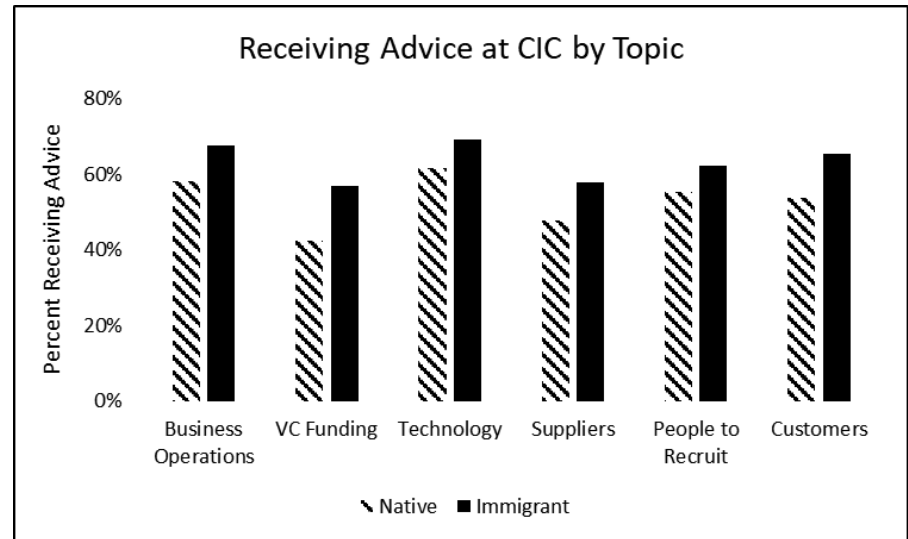
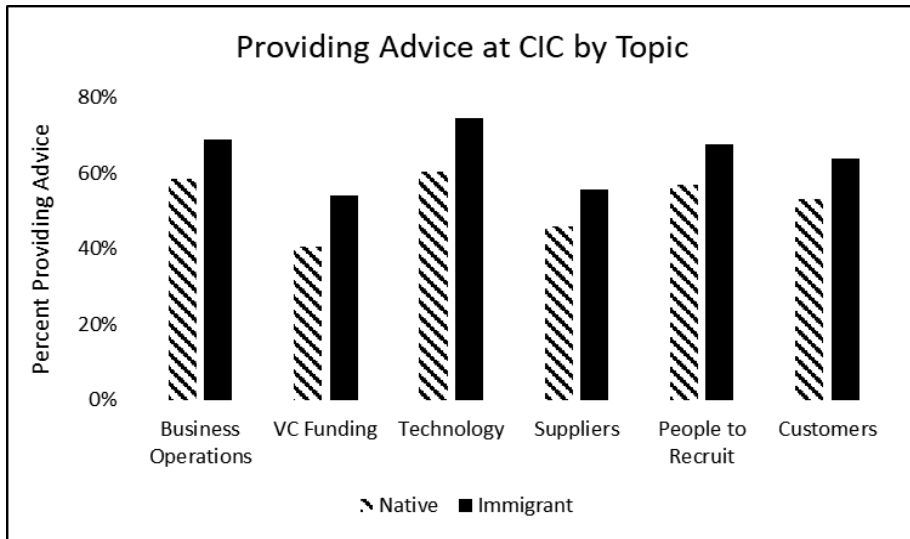
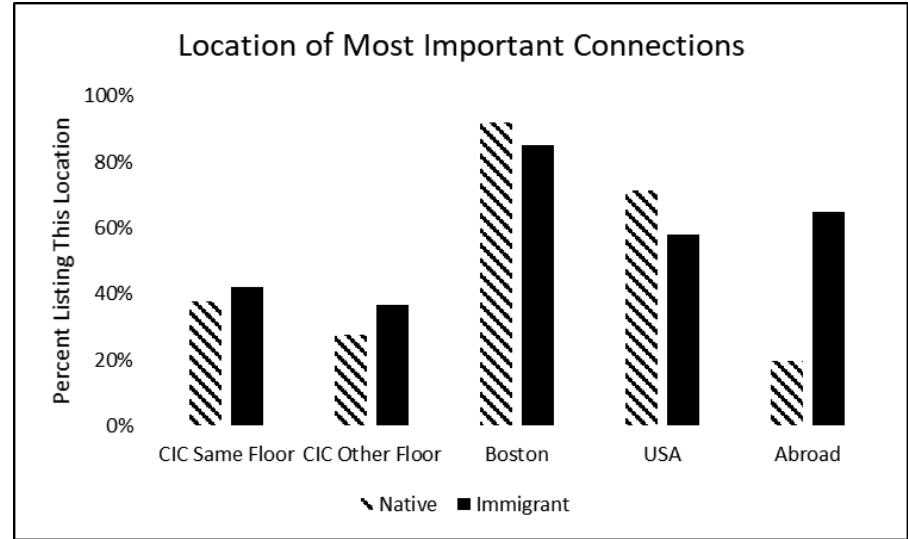
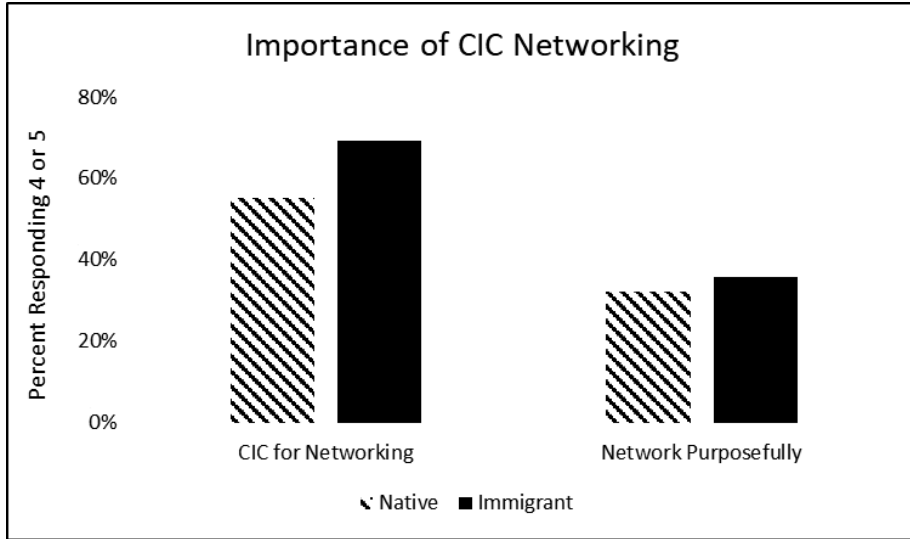
- Guzman, J., and S. Stern. (2016). "The state of American entrepreneurship? New estimates of the quantity and quality of entrepreneurship for 15 US states, 1988-2014." NBER Working Paper No. 22095. Cambridge, MA: National Bureau of Economic Research.
- Hegde, D., and J. Tumlinson. (2014). "Does social proximity enhance business relationships? Theory and evidence from ethnicity's role in US venture capital." *Management Science* 60(9): 2355-2380.
- Hoang, H., and B. Antoncic. (2003). "Network-based research in entrepreneurship: A critical review." *Journal of Business Venturing* 18(2): 165-187.
- Hunt, J. (2011). "Which immigrants are most innovative and entrepreneurial? Distinctions by entry visa." *Journal of Labor Economics* 29(3): 417-457.
- Hunt, J., and M. Gauthier-Loiselle. (2010). "How much does immigration boost innovation?" *American Economic Journal: Macroeconomics* 2(2): 31-56.
- Jack, S. (2010). "Approaches to studying networks: Implications and outcomes." *Journal of Business Venturing* 25: 120-137.
- Jack, S., S. Moul, A.R. Anderson, and S. Dodd. (2010). "An entrepreneurial network evolving: Patterns of change." *International Small Business Journal: Researching Entrepreneurship* 28(4).
- Jackson, M., and L. Yariv. (2007). "Diffusion of behavior and equilibrium properties in network games." *American Economic Review* 97(2): 92-98.
- Kalnins, A., and W. Chung. (2006). "Social capital, geography, and survival: Gujarati immigrant entrepreneurs in the U.S. lodging industry." *Management Science* 52(2): 233-247.
- Karlan, D., M. Mobius, T. Rosenblat, and A. Szeidl. (2009). "Trust and social collateral." *The Quarterly Journal of Economics* 124(3): 1307-1361.
- Katz, B., and J. Wagner. (2014). "The rise of innovation districts: A new geography of innovation in America." Report, Metropolitan Policy Program, Brookings Institute.
- Katz, B., J.S. Vey, and J. Wagner. (2015). "One year after: Observations on the rise of innovation districts." Report, Metropolitan Policy Program, Brookings Institute.
- Kerr, S.P., and W.R. Kerr. (2017). "Immigrant entrepreneurship." In J. Haltiwanger, E. Hurst, J. Miranda and A. Schoar (eds.), *Measuring Entrepreneurial Businesses: Current Knowledge and Challenges*, 187-249. NBER Book Series Studies in Income and Wealth, Cambridge MA.
- Kerr, S.P., and W.R. Kerr. (2018). "Immigrant entrepreneurship in America: Evidence from the survey of business owners 2007 & 2012." NBER Working Paper No. 24494. Cambridge, MA: National Bureau of Economic Research.
- Kerr, S.P., W.R. Kerr, and M. Dalton. (2019). "Risk attitudes and personality traits of entrepreneurs vs. inventors." Working Paper.
- Kerr, S.P., W.R. Kerr, and T. Xu. (2018). "Personality traits of entrepreneurs: A review of recent literature." *Foundation and Trends in Entrepreneurship*, 14, no. 3: 279-356.
- Kerr, W.R. (2018). *The Gift of Global Talent: How Migration Shapes Business, Economy & Society*, Stanford University Press, Palo Alto CA.
- Kerr, W.R., S. Kerr, and A. Brownell. (2017a). CIC: Catalyzing Entrepreneurial Ecosystems (A). HBS No. N-817-126. Cambridge, MA: Harvard Business School Publishing.
- Kerr, W.R., S. Kerr, and A. Brownell. (2017b). CIC: Catalyzing Entrepreneurial Ecosystems (B). HBS No. N-817-127. Cambridge, MA: Harvard Business School Publishing.
- Kerr, W.R., and S.D. Kominers. (2015). "Agglomerative forces and cluster shapes," *Review of Economics and Statistics* 97(4): 877-899.
- Kerr, W.R., and W.F. Lincoln. (2010). "The supply side of innovation: H-1B visa reforms and U.S. ethnic invention," *Journal of Labor Economics* 28(3): 473-508.
- Kerr, W.R., and M. Mandorff. (2015). "Social networks, ethnicity, and entrepreneurship." NBER Working Paper No. 21597. Cambridge, MA: National Bureau of Economic Research.

- Kim, P.H., and H.E. Aldrich. (2005). "Social capital and entrepreneurship." *Foundations and Trends in Entrepreneurship* 1(2): 55-104.
- Kloosterman, R., J. van der Leun, and J. Rath. (1998). "Across the border: Immigrants' economic opportunities, social capital and informal business activities." *Journal of Ethnic and Migration Studies* 24(2): 249-268.
- Kremel, A. (2016). "Fulfilling the need of business advisory services among Swedish immigrant entrepreneurs." *Journal of Entrepreneurship and Public Policy* 5(3): 343-364.
- Light, I., P. Bhachu, and S. Karageorgis. (1989). "Migration networks and immigrant entrepreneurship." In I. Hubert and P. Bhachu (eds.) *Immigration and Entrepreneurship: Culture, Capital, and Ethnic Networks*, 25-50. New Brunswick, NJ: Transaction Publishers.
- Lin, F.-J., and Y.-H. Lin. (2016). "The effect of network relationship on the performance of SMEs." *Journal of Business Research* 69(5): 1780-1784.
- Mazzola, E., G. Perrone, and D.S. Kamuriwo. (2016). "Network positions and the probability of being acquired: An empirical analysis in the biopharmaceutical industry." *British Journal of Management* 27(3): 516-533.
- McDonald, M.L., P. Khanna, and J. D. Westphal. (2017). "Getting them to think outside the circle: Corporate governance, CEOs' external advice networks, and firm performance." *Academy of Management Journal* 51(3): 452-475.
- McPherson, M., L. Smith-Lovin, and J.M. Cook. (2001). "Birds of a feather: Homophily in social networks." *Annual Review of Sociology* 27(1): 415-444.
- Nanda, R., and T. Khanna. (2014). "Diasporas and domestic entrepreneurs: Evidence from the Indian software industry." *Journal of Economics & Management Strategy* 19(4): 991-1012.
- Peri, G., K. Shih, and C. Sparber. (2015). "STEM workers, H-1B visas and productivity in US cities." *Journal of Labor Economics* 33(3): S225-S255.
- Powell, W., K. Koput, and L. Smith-Doerr. (1996). "Interorganizational collaboration and the locus of innovation: Networks in learning in biotechnology." *Administrative Science Quarterly* 41(1): 116-145.
- Raijman, R., and M. Tienda. (2000). "Immigrant pathways to business ownership: A comparative ethnic perspective." *International Migration Review* 34: 682-706.
- Ruef, M., H.E. Aldrich, and N. Carter. (2003). "The structure of founding teams: Homophily, strong ties, and isolation among U.S. entrepreneurs." *American Sociological Review* 68(2): 195-222.
- Salaff, J.W., A. Greve, W. Siu-Lun, and L.X.L. Ping. (2003). "Ethnic entrepreneurship, social networks, and the enclave." In B.S.A. Yeoh, M.W. Charney, and T.C. Kiong (eds.), *Approaching Transnationalisms*. Boston, MA: Springer.
- Saxenian, A. (2000). "Silicon Valley's new immigrant entrepreneurs." San Francisco: Public Policy Institute of California
- Saxenian, A. (2002). "Silicon Valley's new immigrant high-growth entrepreneurs." *Economic Development Quarterly*, 16(1): 20-31.
- Schott, T., and K. Jensen. (2016). "Firms' innovation benefiting from networking and institutional support: A global analysis of national and firm effects." *Research Policy* 45(6): 1233-1246.
- Sharir, M. and M. Lerner. (2006). "Gauging the success of social ventures initiated by individual social entrepreneurs." *Journal of World Business*, 41(1): 6-20.
- Singer, A. (2013). "Contemporary immigrant gateways in historical perspective." *Daedalus, the Journal of the American Academy of Arts and Sciences* 142(3): 76-91.
- Sorenson, O. (2005). "Social networks and industrial geography." In U. Cantner, E. Dinopoulos, and R.F. Lanzillotti (eds.), *Entrepreneurships, the New Economy and Public Policy*. Berlin, Heidelberg: Springer.

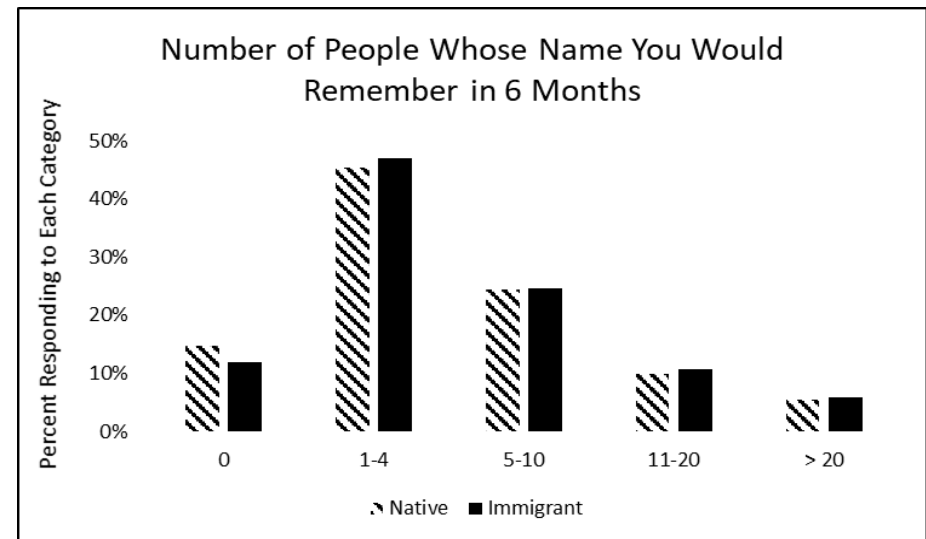
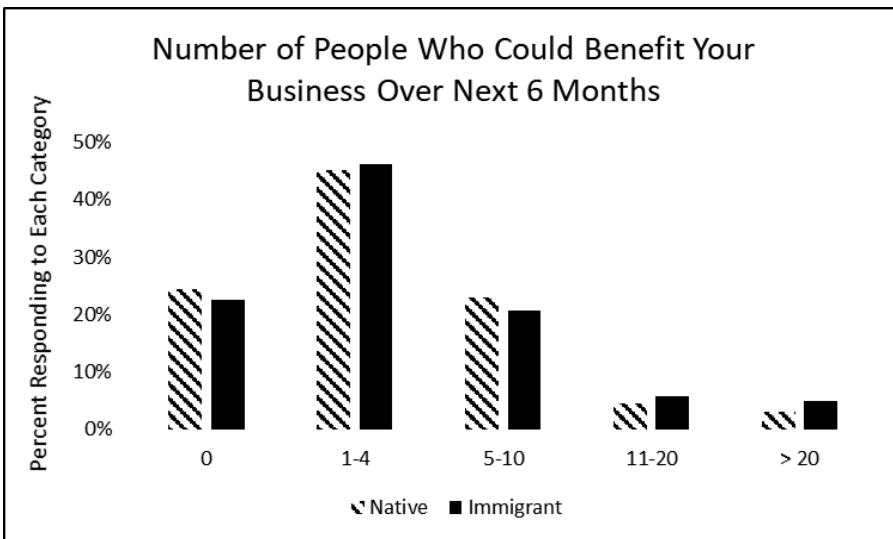
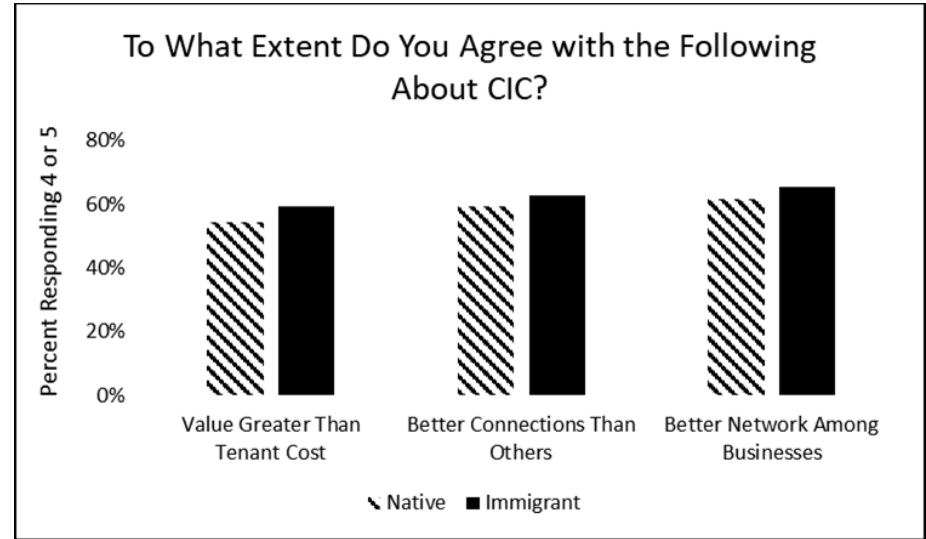
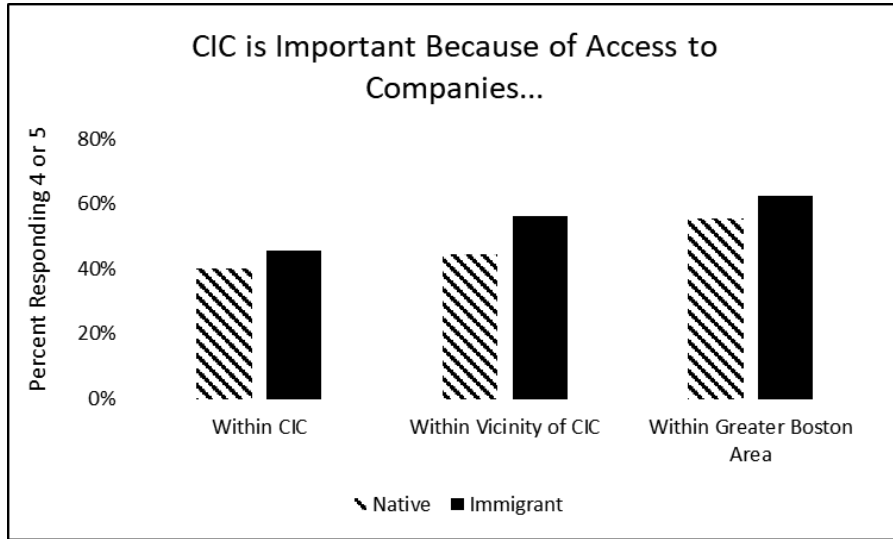
- Uzzi, B. (1999). "Embeddedness in the making of financial capital: How social relations and networks benefit firms seeking financing." *American Sociological Review* 64(4): 481-505.
- Vanhaverbeke, W., V. Gilsing, B. Beerkens, and G. Duysters. (2009). "The role of alliance network redundancy in the creation of core and non-core technologies: A local action approach." *Journal of Management Studies* 46(2): 215-244.
- Weber, C., and J. Kratzer. (2013). "Social entrepreneurship, social networks and social value creation: A quantitative analysis among social entrepreneurs." *International Journal of Entrepreneurial Venturing* 5(3): 217-239.
- Wilson, K., and W.A. Martin. (1982). "Ethnic enclaves: A comparison of the Cuban and black economies in Miami." *American Journal of Sociology* 88: 135-160.
- Witt, P. (2007). "Entrepreneurs' networks and the success of start-ups." *Entrepreneurship and Regional Development* 16(5): 391-412.
- Zaheer, A., and G. Bell. (2005). "Benefiting from network position: Firm capabilities, structural holes, and performance." *Strategic Management Journal* 26(9): 809-825.
- Zarya, V. (2016). "Female Fortune 500 CEOs are poised to break this record in 2017." *Fortune*. Retrieved from <http://fortune.com/2016/12/22/female-fortune-500-ceos-2017>.



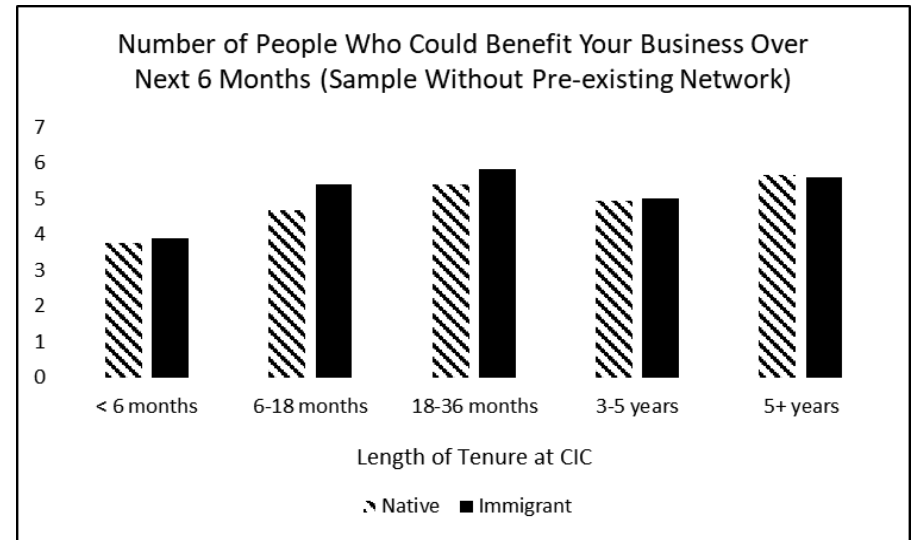
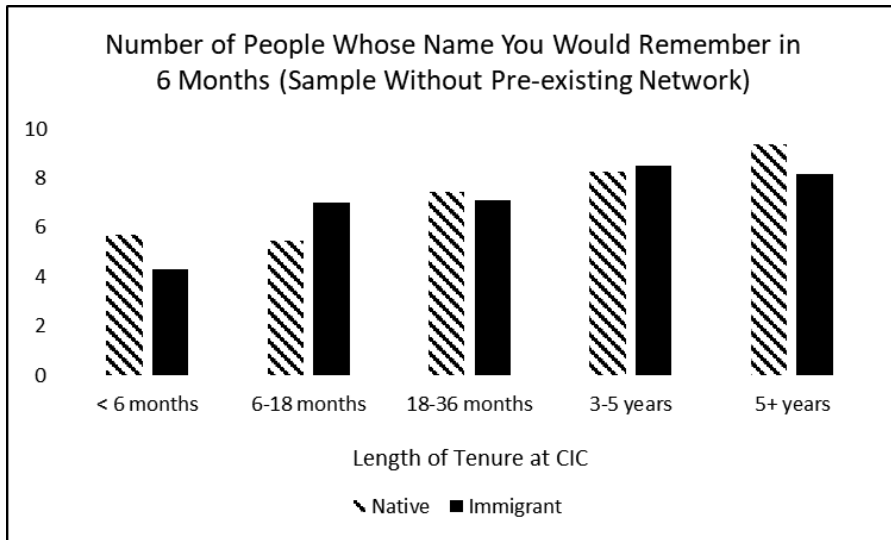
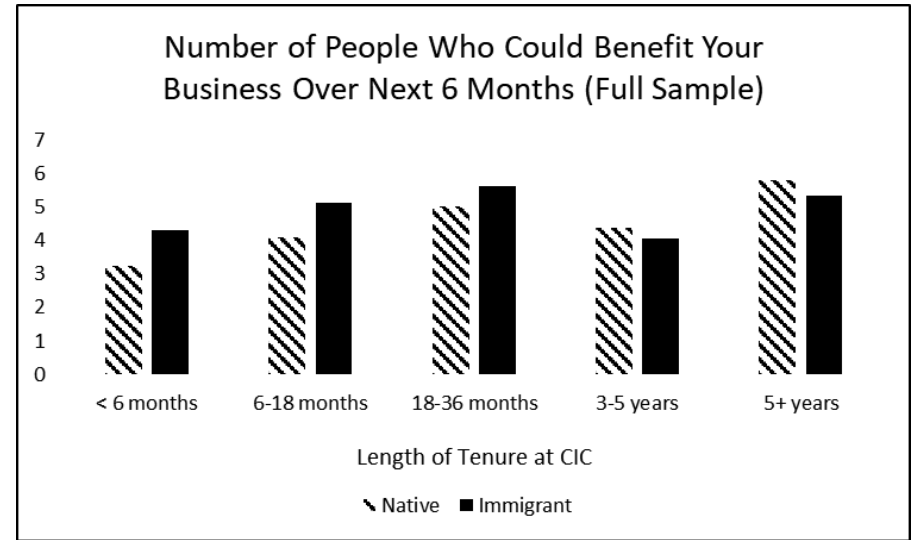
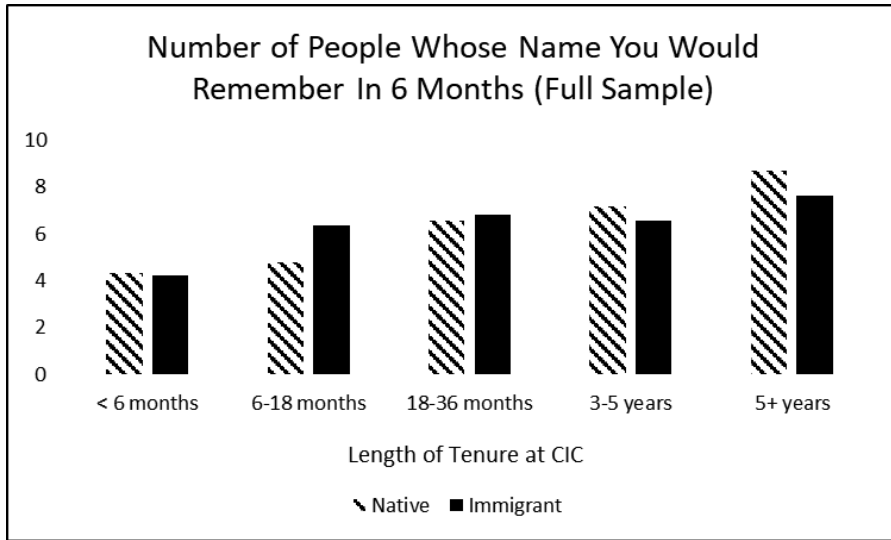
# Figure 1: Networking Importance, Location, and Advice



# Figure 2: CIC Importance and Number of Beneficial Contacts



# Figure 3: Beneficial Contacts by Tenure at CIC



**Table 1. Descriptive statistics for CIC locations**

Notes: One Broadway is the original CIC building at the edge of MIT. Boston-area expansions are 101 Main (one block away from One Broadway) and 50 Milk Street (Boston financial district).

	All	50 Milk	One Broadway	101 Main	St. Louis
<b>Year opened</b>		2014	2001	2012	2014
<b>Individuals</b>	5,645	1,236	2,467	464	1,478
Heads	1,168	346	577	59	186
Non-Heads	4,477	890	1,890	405	1,292
<b>Footprint (sq. ft.)</b>	422,177	93,410	155,147	52,465	121,155
<b>Average firm tenure at CIC in years</b>	2.8	2.3	4.4	4.4	1.6
<b>Average firm size at CIC in employees</b>	4.8	3.6	4.6	4.6	7.9
<b>Percent of firms that are nonprofits</b>	10.5	19.1	7.1	7.1	10.0

**Table 2. Descriptive statistics on survey responses by facility**

Notes: See Table 1. Some respondents do not designate themselves as being at one of the four facilities.

	All	50 Milk	One Broadway	101 Main	St. Louis
<b>Number of recipients</b>	5,645	1,236	2,467	464	1,478
<b>Number of respondents</b>	1,222	199	493	86	348
Entrepreneurs	378	55	184	14	114
Employees	844	144	309	72	234
<b>Entrepreneur share</b>	30.9	27.6	37.3	16.3	32.8
<b>Response rate</b>	21.6	16.1	20.0	18.5	23.5
<b>Age</b>					
Percent aged < 25	8.7	11.1	8.5	10.1	7.2
Percent aged 25-34	37.2	37.2	35.5	48.1	36.5
Percent aged 35-44	24.5	30.0	21.2	26.6	25.9
Percent aged 45-54	17.4	13.3	22.5	6.3	14.7
Percent aged > 54	12.3	8.3	12.3	8.9	15.7
<b>Percent immigrant</b>	26.0	33.7	34.8	33.8	5.5
<b>Percent women</b>	40.1	45.3	38.6	42.3	38.7
<b>Percent advanced degree</b>	19.0	8.0	25.8	11.3	17.7

**Table 3. Descriptive statistics for immigrants vs natives**

*Notes: Some respondents do not designate themselves as being immigrants or natives.*

*Entrepreneurs are defined as those who identify their position as Founder, CEO or Owner.*

*Inventors are defined as those who report having personally filed for a patent.*

	All	Natives	Immigrants
<b>Respondents</b>	1,222	744	262
<b>Percent of sample</b>		74.0	26.0
<b>Role and background</b>			
Entrepreneur	30.9	33.2	31.3
Employee	69.1	66.8	68.7
Inventor	21.5	17.5	32.9
<b>Female</b>	40.2	42.0	35.1
<b>Age</b>			
Under 25	8.7	9.7	5.8
25-34	37.2	36.3	40.3
35-44	24.5	23.3	26.7
45-54	17.4	16.5	20.2
Over 55	12.3	14.2	7.0
<b>Race and ethnicity</b>			
Asian	12.8	5.7	33.5
African American	3.5	4.6	0.8
Hispanic/Latino	5.5	3.0	13.1
White	73.5	83.8	48.5
Other responses	3.8	3.8	4.2
<b>Education</b>			
BA/MA	75.3	76.4	70.9
PhD	19.0	17.4	24.5
Other	5.7	6.2	4.6
<b>Field of Education</b>			
STEM	36.0	31.3	49.8
Business or economics	29.3	31.0	24.9
Other	34.6	37.7	25.3
<b>Experience</b>			
Prior work in industry	62.6	62.8	61.8
Prior work in a startup	47.9	45.3	53.8
Prior entrepreneur	32.3	31.0	36.3

**Table 4. Networking baselines for immigrants vs natives***Notes: See Table 3.*

	All	Natives	Immigrants
<b>Respondents</b>	1,222	744	262
Located in CIC for networking opportunities?	3.63	3.62	3.79
Does CIC networking environment help your business?	3.67	3.65	3.76
How purposeful are you in building your business network?	2.85	2.80	3.03
CIC is important because of access to other companies within CIC	3.26	3.22	3.36
... within the vicinity of CIC	3.40	3.34	3.57
... in the greater Boston / St. Louis area	3.63	3.57	3.78
CIC's value outweighs the cost to tenants?	3.67	3.66	3.72
CIC offers more valuable connections than other co-working facilities?	3.78	3.77	3.86
Person count: people in other CIC firms who could benefit your business in the next six months?	4.53	4.45	4.89
Person count: people in other CIC firms whose name you would remember in six months?	5.91	5.89	6.13
Measure of unique locations a respondent listed for where they network	2.90	2.92	2.90
<b>Frequency of Advice (1-4)</b>			
Provide advice: business operations	2.02	1.97	2.17
Provide advice: venture financing	1.69	1.64	1.81
Provide advice: technology	2.05	1.99	2.23
Provide advice: suppliers	1.69	1.64	1.81
Provide advice: people to recruit	1.87	1.83	1.98
Provide advice: customers	1.87	1.82	2.01
Receive advice: business operations	1.89	1.83	2.06
Receive advice: venture financing	1.66	1.58	1.84
Receive advice: technology	1.98	1.94	2.10
Receive advice: suppliers	1.68	1.64	1.79
Receive advice: people to recruit	1.80	1.76	1.89
Receive advice: customers	1.83	1.77	2.00

**Table 5. Impact of CIC on perceived networking activity for immigrants vs natives**

Notes: Baseline responses were on a 1 to 5 scale with 1 = strongly disagree, 5 = strongly agree. Binary analysis bins responses with 0 = 1, 2, or 3 and 1 = 4 or 5. Person level covariates include controls for gender, age, race, educational attainment, prior industry experience, prior startup experience, fulltime vs part time status, and patenting history. Firm level covariates include firm size. Covariates are introduced using indicators for value ranges; non-response was grouped into an "unknown" category. Regressions report robust standard errors and are unweighted.

Question	Baseline Values for immigrant indicator				Binary Analysis for immigrant indicator				Sample Size	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Full	BOS Only
Located in CIC for networking opportunities?	0.101 (0.191)	0.068 (0.180)	0.135 (0.186)	0.169 (0.189)	0.144* (0.074)	0.131* (0.071)	0.160** (0.074)	0.182** (0.082)	326	222
Does CIC's networking environment help your business?	0.331*** (0.108)	0.339*** (0.108)	0.341*** (0.109)	0.338*** (0.116)	0.130*** (0.040)	0.129*** (0.040)	0.130*** (0.041)	0.125*** (0.044)	985	698
How purposeful are you in building your business network?	0.292*** (0.098)	0.303*** (0.099)	0.323*** (0.100)	0.291*** (0.105)	0.050 (0.039)	0.043 (0.039)	0.054 (0.039)	0.045 (0.041)	1003	712
CIC is important because of access to other companies within CIC	0.281*** (0.090)	0.288*** (0.091)	0.298*** (0.093)	0.280*** (0.099)	0.095** (0.039)	0.096** (0.039)	0.095** (0.040)	0.083** (0.042)	994	707
... within the vicinity of CIC	0.208** (0.097)	0.222** (0.098)	0.223** (0.098)	0.193* (0.105)	0.106*** (0.041)	0.106** (0.041)	0.100** (0.042)	0.082* (0.044)	992	705
... in the greater Boston / St. Louis area	0.233** (0.096)	0.219** (0.098)	0.214** (0.098)	0.214** (0.098)	0.081* (0.043)	0.073* (0.043)	0.071 (0.044)	0.071 (0.044)	706	706
CIC's value outweighs the cost to tenants	0.151* (0.081)	0.122 (0.082)	0.120 (0.083)	0.098 (0.087)	0.089** (0.041)	0.068 (0.041)	0.062 (0.042)	0.050 (0.045)	986	700
CIC offers more valuable connections than other co-working facilities	0.131 (0.081)	0.120 (0.081)	0.122 (0.082)	0.110 (0.088)	0.044 (0.040)	0.041 (0.040)	0.039 (0.041)	0.031 (0.044)	981	695
<i>Person Level Covariates</i>	x	x	x	x	x	x	x	x		
<i>Building FE</i>	x	x	x	x	x	x	x	x		
<i>Floor FE</i>		x	x	x		x	x	x		
<i>Firm Level Covariates</i>			x	x			x	x		
<i>Boston Only</i>				x				x		

**Table 6. Impact of CIC on measured networking activity for immigrants vs natives**

Notes: See Table 5. Person count questions allowed for five ranges from none to more than 20. Baseline estimations use the mid-points of ranges and 20 for the largest category; binary analysis bins responses with 0 = ten or fewer and 1 = eleven or more. Respondents indicated across eight options where they networked, and the metric used in the analyses is the sum of these checked options.

Question	Baseline Values for immigrant indicator				Binary Analysis for immigrant indicator				Sample Size	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Full	BOS Only
Person count: people in other CIC firms who could benefit your business in the next six months?	0.664* (0.392)	0.538 (0.402)	0.672* (0.400)	0.497 (0.417)	0.034 (0.024)	0.023 (0.025)	0.029 (0.025)	0.012 (0.026)	1004	714
Person count: people in other CIC firms whose name you would remember in six months?	0.371 (0.427)	0.118 (0.431)	0.303 (0.431)	0.170 (0.458)	0.014 (0.030)	-0.001 (0.030)	0.009 (0.030)	0.000 (0.032)	1003	712
Person count: Sum of the two responses	0.996 (0.740)	0.626 (0.752)	0.951 (0.747)	0.640 (0.778)	0.022 (0.021)	0.012 (0.022)	0.022 (0.021)	0.008 (0.022)	1005	714
Measure of unique locations a respondent listed for where they network	0.037 (0.150)	-0.007 (0.155)	0.036 (0.153)	-0.023 (0.168)	-0.014 (0.026)	-0.025 (0.028)	-0.021 (0.028)	-0.037 (0.029)	791	539
<i>Person Level Covariates</i>	x	x	x	x	x	x	x	x		
<i>Building FE</i>	x	x	x	x	x	x	x	x		
<i>Floor FE</i>		x	x	x		x	x	x		
<i>Firm Level Covariates</i>			x	x			x	x		
<i>Boston Only</i>				x				x		



**Table 7. Founder networks for immigrant vs natives**

Notes: See Table 5. Baseline responses for first two questions were on a 1 to 5 scale with 1 = strongly disagree, 5 = strongly agree. Binary analysis bins responses with 0 = 1, 2, or 3 and 1 = 4 or 5. Lists of important contacts by location were transformed into count variables ranging from zero to five. Binary analysis bins responses with 0 = 2 or fewer mentions and 1 = 3 or more mentions.

Question	Baseline Values for immigrant indicator				Binary Analysis for immigrant indicator				Sample Size	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Full	BOS Only
Think of the 5 most important people you met at CIC specifically. How important were they for your business?	0.043 (0.150)	0.030 (0.149)	0.061 (0.150)	0.079 (0.170)	0.026 (0.076)	0.030 (0.078)	0.045 (0.079)	0.047 (0.086)	311	210
How many of these top five contacts are located on the same floor as you?	0.012 (0.118)	0.023 (0.122)	0.064 (0.128)	0.131 (0.145)	-0.000 (0.023)	0.001 (0.024)	0.005 (0.026)	0.024 (0.030)	309	209
... Another floor at CIC?	0.037 (0.117)	0.037 (0.120)	0.036 (0.116)	0.074 (0.122)	-0.003 (0.022)	0.002 (0.022)	-0.007 (0.019)	-0.012 (0.022)	309	209
... Within the Boston / St. Louis area?	-0.423** (0.193)	-0.429** (0.196)	-0.389* (0.203)	-0.244 (0.220)	-0.078 (0.072)	-0.078 (0.075)	-0.074 (0.079)	-0.106 (0.087)	309	209
... Within the United States?	-0.356* (0.188)	-0.314* (0.190)	-0.380* (0.193)	-0.526** (0.216)	-0.040 (0.059)	-0.016 (0.059)	-0.021 (0.061)	-0.066 (0.066)	309	209
... Overseas?	0.748*** (0.127)	0.695*** (0.129)	0.686*** (0.133)	0.573*** (0.148)	0.083** (0.037)	0.075** (0.035)	0.074** (0.034)	0.066* (0.038)	309	209
Measure for networking on same floor or another floor at CIC	0.049 (0.166)	0.060 (0.166)	0.100 (0.172)	0.205 (0.187)	-0.029 (0.043)	-0.032 (0.045)	-0.022 (0.045)	0.028 (0.048)	309	209
<i>Person Level Covariates</i>	x	x	x	x	x	x	x	x		
<i>Building FE</i>	x	x	x	x	x	x	x	x		
<i>Floor FE</i>		x	x	x		x	x	x		
<i>Firm Level Covariates</i>			x	x			x	x		
<i>Boston Only</i>				x				x		

**Table 8. Providing advice at CIC for immigrants vs natives**

Notes: See Table 5. Baseline responses are on a 1 to 4 scale with 1 = Never, 2 = Infrequent, 3 = Monthly, and 4 = Weekly. Binary analysis bins 0 = Never vs 1 = any other selection.

Question: How often do you provide advice on the following topics to people outside of your company at CIC?	Baseline Values <i>for immigrant indicator</i>				Binary Analysis <i>for immigrant indicator</i>				Sample Size	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Full	BOS Only
Business operations	0.260*** (0.081)	0.269*** (0.081)	0.296*** (0.079)	0.238*** (0.084)	0.123*** (0.038)	0.129*** (0.038)	0.143*** (0.037)	0.123*** (0.040)	994	706
Venture funding	0.176** (0.070)	0.175** (0.071)	0.194*** (0.070)	0.118 (0.072)	0.117*** (0.039)	0.120*** (0.039)	0.125*** (0.039)	0.094** (0.041)	987	702
Technology	0.201*** (0.076)	0.178** (0.077)	0.188** (0.077)	0.160** (0.081)	0.113*** (0.036)	0.110*** (0.036)	0.116*** (0.036)	0.113*** (0.039)	994	706
Suppliers	0.185*** (0.070)	0.184** (0.073)	0.190*** (0.072)	0.160** (0.073)	0.102** (0.041)	0.099** (0.041)	0.104** (0.041)	0.082* (0.044)	984	699
People to recruit	0.214*** (0.070)	0.233*** (0.071)	0.250*** (0.070)	0.195*** (0.073)	0.120*** (0.039)	0.125*** (0.039)	0.131*** (0.039)	0.098** (0.042)	992	704
Customers	0.282*** (0.077)	0.285*** (0.078)	0.312*** (0.077)	0.235*** (0.081)	0.139*** (0.040)	0.140*** (0.040)	0.147*** (0.040)	0.108** (0.043)	988	700
<i>Person Level Covariates</i>	x	x	x	x	x	x	x	x		
<i>Building FE</i>	x	x	x	x	x	x	x	x		
<i>Floor FE</i>		x	x	x		x	x	x		
<i>Firm Level Covariates</i>			x	x			x	x		
<i>Boston Only</i>				x				x		

**Table 9. Receiving advice at CIC for immigrants vs natives**

Notes: See Table 5. Baseline responses are on a 1 to 4 scale with 1 = Never, 2 = Infrequent, 3 = Monthly, and 4 = Weekly. Binary analysis bins 0 = Never vs 1 = any other selection.

Question: How often do you receive advice on the following topics from people outside of your company at CIC?	Baseline Values <i>for immigrant indicator</i>				Binary Analysis <i>for immigrant indicator</i>				Sample Size	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Full	BOS Only
Business operations	0.252*** (0.073)	0.256*** (0.074)	0.278*** (0.073)	0.237*** (0.077)	0.095** (0.039)	0.098** (0.039)	0.109*** (0.039)	0.090** (0.043)	990	701
Venture funding	0.257*** (0.068)	0.276*** (0.069)	0.293*** (0.069)	0.264*** (0.070)	0.133*** (0.040)	0.149*** (0.040)	0.158*** (0.040)	0.151*** (0.043)	990	701
Technology	0.178** (0.077)	0.187** (0.080)	0.212*** (0.080)	0.194** (0.086)	0.079** (0.039)	0.088** (0.040)	0.101** (0.041)	0.099** (0.045)	988	702
Suppliers	0.165** (0.067)	0.169** (0.068)	0.185*** (0.068)	0.154** (0.070)	0.104** (0.041)	0.110*** (0.041)	0.120*** (0.041)	0.100** (0.045)	989	700
People to recruit	0.144** (0.070)	0.160** (0.071)	0.173** (0.071)	0.132* (0.074)	0.067* (0.041)	0.080* (0.041)	0.086** (0.042)	0.062 (0.045)	986	698
Customers	0.274*** (0.074)	0.281*** (0.075)	0.310*** (0.075)	0.265*** (0.078)	0.128*** (0.040)	0.126*** (0.041)	0.139*** (0.041)	0.103** (0.045)	989	702
<i>Person Level Covariates</i>	x	x	x	x	x	x	x	x		
<i>Building FE</i>	x	x	x	x	x	x	x	x		
<i>Floor FE</i>		x	x	x		x	x	x		
<i>Firm Level Covariates</i>			x	x			x	x		
<i>Boston Only</i>				x				x		

## Appendix A: Survey Instruments

### Entrepreneurship/CIC survey

Q1.1 Harvard and Wellesley College are conducting a survey at CIC to better understand patterns of innovation in startups. The data will build on entrepreneurship research and will help define the factors that accelerate and support innovative businesses, with a focus on how innovators build and utilize networks. The results of this survey will also help CIC to build upon the quality of its facilities and offerings. This survey will take <10 minutes, with an additional 5 minutes if you are the owner, founder, or CEO of a business. All respondents receive a \$5 Amazon gift card or participate in a drawing of a \$2,000 gift card. Please answer as many questions as possible. All responses are treated in strict confidence by CIC, Harvard, and Wellesley College. If you have any questions or comments about this project or the survey, please contact Bill Kerr (617-596-7763, wkerr@hbs.edu). Note: By responding to this survey you personally consent to having your responses used in the research study. These responses represent your personal views and opinions, not those of your employer. You also understand that this survey will not be asking you to reveal any confidential business information. Your answers will be seen only by the researchers at Harvard and Wellesley and will be aggregated and anonymized in any publications.

Q1.3 Please characterize your position in the company you are most involved with at CIC.

\*This question requires an answer in order to start the survey\*

- Employee (1)
- Founder and/or CEO (2)
- Owner (3)
- Other (e.g. board member, advisor) (4)

Q1.4 Is this position full-time or part-time?

- Full-time (1)
- Part-time (2)

### PART A: CEO / OWNER / OTHER QUESTIONS

Display following section:

*If "Please characterize your position in the company you are most involved with at CIC" "Founder and/or CEO", "Owner", or "Other (e.g. board member, advisor)" is selected*

#### Q2.1 Experience with CIC

Q2.2 How long have you cumulatively been a client at CIC?

- < 6 months (1)
- 6-18 months (2)
- 18-36 months (3)
- 3-5 years (4)
- 5+ years (5)

Q2.3 How long do you plan to stay at CIC?

- < 6 months (1)
- 6-18 months (2)
- 18-36 months (3)
- 3-5 years (4)
- 5+ years (5)

**Display the following questions for clients in MA (Cambridge and Boston)**

Q2.4 Which building are you currently located in?

- 50 Milk Street (1)
- 1 Broadway (2)
- 101 Main Street (3)

**Display This Question:**

*If "Which building are you currently located in?" "50 Milk Street" Is Selected in Q2.4*

Q2.5 Which floor are you located on?

- Floor 5 (1)
- Floor 11 (2)
- Floor 12 (3)
- Floor 14 (4)
- Floor 15 (5)
- Floor 16 (6)
- Floor 17 (7)
- Floor 18 (8)

*If "Which building (and floor) are you currently located in?" "1 Broadway" Is Selected in Q2.4*

Q2.6 Which floor are you located on?

- Floor 3 (1)
- Floor 4 (2)
- Floor 5 (3)
- Floor 7 (4)
- Floor 9 (5)
- Floor 11 (6)
- Floor 14 (7)

*If "Which building are you currently located in?" "101 Main Street" Is Selected in Q2.4*

Q2.7 Which floor are you located on?

- Floor 1 (1)
- Floor 14 (2)
- Floor 15 (3)

**Display the following question for clients in St. Louis**

Q2.4 Which building are you currently located in?

- CET - Doris (1)
- CET - Lab (2)
- CIC@4240 (3)

**Display the following questions for all clients**

Q2.8 How do you rate CIC overall? (1= very poor; 5= very good)

- 1 (very poor) (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (very good) (5)

**Q2.9 Impact of CIC**

Q2.10 If you have prior or multiple current ventures at CIC, please consider the most recent venture in your responses.

Q2.11 Why did you locate your company at CIC. Please rate the following:  
(1= not at all important; 5= very important)

	1 not at all important (1)	2 (2)	3 (3)	4 (4)	5 very important (5)
Networking opportunities (Q2.11_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Location (Q2.11_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physical space and resources (Q2.11_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Office support (Q2.11_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Affordability (Q2.11_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flexibility of rental agreements (Q2.11_6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to move office space within CIC (Q2.11_7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2.12 How does being located within CIC help your business?  
(1= not at all; 5= very much)

	1 not at all (1)	2 (2)	3 (3)	4 (4)	5 very much (5)
Lower financial costs of starting a business (Q2.12_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lower non-financial costs of starting a business (e.g. save time, access to talent) (Q2.12_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Raise sales/revenue prospects of the business (Q2.12_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Achieve stronger products (Q2.12_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Achieve more innovative/creative products (Q2.12_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better understand the business environment (Q2.12_6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better network among other businesses (Q2.12_7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recruit talented employees (Q2.12_8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make for an exciting place to work (Q2.12_9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
As a whole (Q2.12_10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display This Question:

If "How does being located at CIC help your business? (1=not at all; 5 = very much)"

"Better network among other businesses" Is Greater Than or Equal to 3

Q2.13 Where/How do you network at CIC?

Please mark all that apply:

- Informally: Conversations or introductions at Venture Café (1)
- Informally: Conversations or introductions in a CIC kitchen (2)
- Other public spaces at CIC (3)
- Other informal channels (4)
- Purposefully seek out meetings with firms located inside CIC (ask via email, phone, LinkedIn,...) (5)
- Purposefully seek out meetings with firms located nearby / outside CIC (ask via email, phone, LinkedIn,...) (6)
- Other CIC-based firms purposefully ask to meet with me (7)
- Other (8)

Q2.14 Outside of the employees of your company, how many persons at CIC do you know well enough to believe that they could be of benefit to your business over the next 6 months?

- None (1)
- 1-4 persons (2)
- 5-10 persons (3)
- 11-20 persons (4)
- More than 20 persons (5)

Q2.15 Outside of the employees of your company, roughly how many people at CIC do you know well enough to believe you would remember his or her name in six months if they left today?

- None (1)
- 1-4 persons (2)
- 5-10 persons (3)
- 11-20 persons (4)
- More than 20 persons (5)

Display This Question:

*If answer to Q2.15 is Greater than None:*

Q2.16 These contacts were mostly developed...

- after coming to CIC (1)
- known in advance prior to coming to CIC (2)

Q2.17 How purposeful are you in building your business network?

- Not at all (1)
- Somewhat (2)
- Average (3)
- Purposeful (4)
- Very purposeful (5)

**Q2.18 CIC Activities and Networking**

Q2.19 How important are the following CIC activities and features to you? (1= not at all important; 5= extremely important)

	1 not at all important (1)	2 (2)	3 (3)	4 (4)	5 extremely important (5)
Venture Café (Q2.19_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communal kitchen (Q2.19_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other public spaces (Q2.19_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lectures and events held at CIC (Q2.19_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CIC Community building gatherings (Q2.19_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2.20 How often do you provide advice on the following topics to people outside of your company at CIC?

	Never (1)	Infrequent (2)	Monthly (3)	Weekly (4)
Business operations (Q2.20_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Venture funding (Q2.20_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technology (Q2.20_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suppliers (Q2.20_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People to recruit (Q2.20_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customers (Q2.20_6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q2.21 How often do you receive advice on the following topics from people outside of your company at CIC?

	Never (1)	Infrequent (2)	Monthly (3)	Weekly (4)
Business operations (Q2.21_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Venture funding (Q2.21_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technology (Q2.21_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suppliers (Q2.21_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People to recruit (Q2.21_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customers (Q2.21_6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2.22 To what extent do you agree with the following statements? (1= strongly disagree; 5= strongly agree)

	1 strongly disagree (1)	2 (2)	3 (3)	4 (4)	5 strongly agree (5)
CIC is important because of access to companies within CIC (Q2.16_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What makes CIC important is access to companies in the vicinity of CIC (Q2.16_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CIC is important because of access to companies in the Greater Boston area (Q2.16_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The value that CIC provides is worth more than the cost to tenants (Q2.16_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Compared to other co-working facilities, CIC offers better opportunities for valuable connections (Q2.16_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Q2.23 CIC Location

### Display the following questions for clients in MA (Cambridge and Boston)

Display This Question:

*If "Which building are you currently located in?" "50 Milk Street" Is Not Selected*

Q2.24 Please mark all of the following factors if they were an important consideration for your decision to locate the company at CIC:

Mark all that apply

- Commute to Kendall Square (1)
- Ability to live close to where I work (2)
- Access to MIT faculty (e.g. collaboration) (3)
- Access to MIT students (e.g. availability of interns, employees) (4)
- Access to Kendall Square services (e.g. restaurants) (5)
- Closeness to other innovative companies around Kendall Square (6)
- Just wanted to be in Cambridge; Kendall Square was not of particular importance (7)
- Other (8)

Display This Question:

*If "Which building are you currently located in?" "50 Milk Street" Is Selected*

Q2.25 Please mark all of the following factors if they were an important consideration for your decision to locate the company at CIC:

Mark all that apply

- Access to local universities (1)
- Commute to downtown (2)
- Proximity to Government Center and State House (3)
- Proximity to the Seaport Innovation District (4)
- Access to businesses downtown (5)
- Ability to live close to where I work (6)
- Access to downtown Boston services (e.g. restaurants) (7)
- Closeness to other innovative companies around downtown Boston (8)
- Just wanted to be in Boston; Milk Street was not of particular importance (9)
- Other (10)

Q2.26 Would you consider a future CIC facility in Allston near Harvard Business School and the new engineering school a viable alternative to current locations?

(1= strongly disagree, 5= strongly agree)

- 1 (strongly disagree) (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (strongly agree) (5)

**Display the following questions for clients in St. Louis**

Q2.21 Please mark all of the following factors if they were an important consideration for your decision to locate the company at CIC/CET: Mark all that apply

- Commute to Cortex (1)
- Ability to live close to where I work (2)
- Access to Washington University faculty (e.g. collaboration) (3)
- Access to St. Louis University faculty (e.g. collaboration) (4)
- Access to other universities' faculty (e.g. collaboration) (5)
- Access to Washington University students (e.g. availability of interns, employees) (6)
- Access to St. Louis University students (e.g. availability of interns, employees) (7)
- Access to other universities' students (e.g. availability of interns, employees) (8)
- Access to CET programming (9)
- Access to entrepreneurial support services (e.g. marketing, accounting, banking, etc.) (10)
- Access to talent within CIC/CET (11)
- Closeness to other innovative companies around Cortex (12)
- Just wanted to be in St Louis; Cortex was not of particular importance (13)
- Other (14)

Q2.22 Would you utilize a CIC facility in 39 North District (Danforth Plant Science Center Corridor)?  
(1= strongly disagree, 5= strongly agree)

- 1 (strongly disagree) (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (strongly agree) (5)

**Display the following questions for all clients**

**Q2.27 Respondent Characteristics**

Q2.28 What is your age?

- Under 25 (1)
- 25-34 (2)
- 35-44 (3)
- 45-54 (4)
- over 55 (5)
- Prefer not to say (6)

Q2.29 What is your gender?

- Male (1)
- Female (2)
- Non-binary / genderqueer (3)
- Prefer to self-describe: (4) \_\_\_\_\_
- Prefer not to say (5)

Q2.30 Were you born in the United States?

- Yes (1)
- No (2)
- Prefer not to say (3)

Q2.31 What is your race / ethnicity? Mark all that apply

- American Indian or Alaska Native (1)
- Asian (2)
- Black or African American (3)
- Hispanic/Latino/Spanish origin (4)
- Native Hawaiian or Pacific Islander (5)
- White (6)
- Other (7)
- Prefer to self-describe: (8) \_\_\_\_\_
- Prefer not to say (9)

Q2.32 Highest level of education

- No college education (1)
- Some college education (2)
- BA or equivalent degree (3)
- MA or equivalent degree (4)
- Doctorate or equivalent degree (5)

Q2.33 Field of highest degree:

- STEM field (1)
- Business or Economics (2)
- Other field (3)

Q2.34 Prior industry experience: Have you previously worked in the same industry as the current firm?

- Yes (1)
- No (2)

Q2.35 Prior start-up experience: Have you previously worked in a startup?

- Yes (1)
- No (2)

Q2.36 Prior start-up experience: Have you previously founded a business?

- Yes (1)
- No (2)

Q2.37 How many firms have you founded? (previous or concurrent startups)

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)
- 8 (8)
- 9 (9)
- 10 (10)
- >10 (11)

**Q2.38 Owner, Founder, or CEO Expectations**

Q2.39 Facts about the current business: Number of employees

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6-10 (6)
- 11-20 (7)
- 21-50 (8)
- More than 50 (9)

Q2.40 Your expectations regarding the future of this new firm. What would you expect the total sales, revenues, or fees to be in 5 years' time (from now)?

- Smaller than now (1)
- Same as now (2)
- Larger than now (3)
- More than 5 times larger than now (4)

Q2.41 In 5 years' time, how do you expect the company's employment to change in FTE?

- Smaller than now (1)
- Same as now (2)
- Larger than now (3)
- More than 5 times larger than now (4)

#### **Q2.42 Financing**

Q2.43 What was the source(s) of capital used to start or acquire this business? Mark all that apply.

- Savings / assets of owner(s) (1)
- Home equity loan (2)
- Credit card of owner(s) (3)
- Business loan (4)
- Outside investor / VC (5)
- Grants (6)
- Other sources of capital (7)
- Don't know (8)

Q2.44 During the last 12 months, were any of the following sources of capital used to finance expansion or capital improvement(s) for this business? Mark all that apply.

- Savings / assets of owner(s) (1)
- Home equity loan (2)
- Credit card of owner(s) (3)
- Business loan (4)
- Outside investor / VC (5)
- Business profits and/or assets (6)
- Grants (7)
- Other source(s) of capital (8)
- Don't know (9)
- Wanted to expand/make capital improvement(s), but could not obtain funding (10)
- Did not expand or make capital improvement(s) (11)

Q2.45 In total, how much external capital has been raised?

- Less than \$250k (1)
- \$250k - \$900k (2)
- \$900k - \$3m (3)
- \$3m - \$9m (4)
- More than \$9m (5)

#### Q2.46 Innovation

Q2.47 Have you ever been an inventor on a patent?

- Yes (1)
- No (2)

Q2.48 Has your company worked on (or is currently working on) a new innovation?

- Yes (1)
- No (2)

Display This Question:

*If "Has your company worked on (or is currently working on) a new innovation?" "Yes" Is Selected*

Q2.49 Does your company patent these innovations?

- No (1)
- Yes, it already has some patents (2)
- Yes, it intends to patent in future (none yet) (3)

Q2.50 Did individuals working at other CIC companies provide important insights to your company?

- Yes (1)
- No (2)

Display This Question:

*If "Did individuals working at other CIC companies provide important insights to your company?" "Yes" Is Selected*

Q2.51 Were these insights typically about the marketplace, the technology, or something else?  
(Please mark all that apply)

- Marketplace (1)
- Technology or innovation (including the product, process) (2)
- Strategy and business operations (3)
- Something else (4) \_\_\_\_\_

Display This Question:

*If "Did individuals working at other CIC companies provide important insights to your company?" "Yes" Is Selected*

Q2.52 How central were these insights to your business model?  
(1= not at all; 5= essential)

- 1 (not at all) (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (essential) (5)

Display This Question:

*If "Did individuals working at other CIC companies provide important insights to your company?" "Yes" Is Selected*

Q2.53 What share of these insights came through unplanned interactions (vs. intentional meetings)?

- 1 (mostly unplanned) (1)
- 2 (2)
- 3 (even mix) (3)
- 4 (4)
- 5 (mostly planned) (5)

Display This Question:

*If "Did individuals working at other CIC companies provide important insights to your company?" "Yes" Is Selected*

Q2.54 Would this expertise have been available within your company?

- Rarely or never (1)
- Sometimes (2)
- Frequently (3)

**Q2.55 The next and final section uses personality assessment tools. It takes 3 minutes to complete.**

**Q2.56 Personality**

Q2.57 How much do you typically enjoy taking risks?

(1= not at all happy to take risks; 10= very happy to take risks)

- 1 (not at all happy to take risks) (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)
- 8 (8)
- 9 (9)
- 10 (very happy to take risks) (10)

Q2.58 Some activities involve a "financial" risk, such as starting a business, investing, or gambling and betting — that is, there is a risk of losing money or other assets. In general, what is your propensity for accepting financial risks?

(1= very low; 10= very high)

- 1 (very low) (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)
- 8 (8)
- 9 (9)
- 10 (very high) (10)



Q2.59 How do the following statements agree with you? (1= strongly disagree; 5= strongly agree)

	1 strongly disagree (1)	2 (2)	3 (3)	4 (4)	5 strongly agree (5)
I am talkative (Q2.59_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am very thorough in my actions (Q2.59_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am original, come up with new ideas (Q2.59_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am reserved (Q2.59_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am relaxed, handle stress well (Q2.59_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a forgiving nature (Q2.59_6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get nervous easily and worry (Q2.59_7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have an active imagination (Q2.59_8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am often lazy (Q2.59_9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I value artistic, aesthetic experiences (Q2.59_10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am kind and considerate to others (Q2.59_11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do things efficiently (Q2.59_12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am social and outgoing (Q2.59_13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I work hard, I can successfully start a business (Q2.59_14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall, my skills and abilities will help me start a business (Q2.59_15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My past experience will be very valuable in starting a business (Q2.59_16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident I can put in the effort needed to start a business (Q2.59_17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that I am primarily responsible for my own successes and failures (Q2.59_18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a great deal of pride when I complete a project successfully (Q2.59_19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a strong desire to achieve positive results even when it requires a great deal of additional effort (Q2.59_20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I surprise people with my novel ideas (Q2.59_21)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People ask me for help in creative activities (Q2.59_22)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I obtain more satisfaction from mastering a skill than coming up with a new idea (Q2.59_23)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer work that requires original thinking (Q2.59_24)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like a job which demands skill and practice rather than inventiveness (Q2.59_25)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am not a very creative person (Q2.59_26)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2.60 Please think of 5 people not directly connected with your company with whom you have had important conversations related to your business in the last 6 months. These may be family members, friends, former colleagues, instructors or other persons with whom you discussed aspects of your business (e.g. strategy, business development, market conditions, financing) but NOT employees, investors, or clients that have direct stake in the company.

Where are these external colleagues located?

	Same floor at CIC (1)	Another floor at CIC (2)	Boston area (3)	US (4)	Overseas (5)
Person 1 (Q2.60_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Person 2 (Q2.60_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Person 3 (Q2.60_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Person 4 (Q2.60_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Person 5 (Q2.60_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2.61 Think of the 5 most important persons you met at CIC specifically. How important were they for your business?

- Not at all important (1)
- Slightly important (2)
- Moderately important (3)
- Very important (4)
- Extremely important (5)

Q2.62 Please select all types of events you would be interested to attend if held in listed locations.

	Another CIC site (1)	District Hall (2)	Roxbury Innovation Center (3)
Venture Café / entrepreneurial gathering (Q2.62_1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expert forum / lecture (Q2.62_2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Investor event / pitch contest (Q2.62_3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q2.63 Is there anything else about CIC, its impact on you / your company that you would like to report?

Q2.64 Please let us know if you would like to receive a report with overall findings of this survey.

- Yes (5)
- No (6)

Q2.65 All respondents can either choose to receive a \$5 Amazon gift card, or to participate in a drawing for a \$2,000 gift card of choice. We expect to receive around 1000 participants in the drawing. Your email will only be used for this purpose, and no additional questions or other contact attempts will be made using the email address provided below.

Please make your choice:

- Please send me a \$5 Amazon gift card. My email is (1) \_\_\_\_\_
- Please enter me in a drawing for the \$2,000 gift card. My email is (2) \_\_\_\_\_

## **PART B: EMPLOYEE QUESTIONS**

**Display following section:**

***If "Please characterize your position in the company you are most involved with at CIC" "Employee" is selected***

Q3.1 How long have you cumulatively been a client at CIC?

- < 6 months (1)
- 6-18 months (2)
- 18-36 months (3)
- 3-5 years (4)
- 5+ years (5)

**Display the following questions for clients in MA (Cambridge and Boston)**

Q3.2 Which building are you currently located in?

- 50 Milk Street (1)
- 1 Broadway (2)
- 101 Main Street (3)

**Display This Question:**

***If "Which building are you currently located in?" "50 Milk Street" Is Selected***

Q3.3 Which floor are you located on?

- Floor 5 (1)
- Floor 11 (2)
- Floor 12 (3)
- Floor 14 (4)
- Floor 15 (5)
- Floor 16 (6)
- Floor 17 (7)
- Floor 18 (8)

**Display This Question:**

***If "Which building are you currently located in?" "1 Broadway" Is Selected***

Q3.4 Which floor are you located on?

- Floor 3 (1)
- Floor 4 (2)
- Floor 5 (3)
- Floor 7 (4)
- Floor 9 (5)
- Floor 11 (6)
- Floor 14 (7)

Display This Question:

If "Which building are you currently located in?" "101 Main Street" Is Selected

Q3.5 Which floor are you located on?

- Floor 1 (1)
- Floor 14 (2)
- Floor 15 (3)

**Display the following questions for clients in St. Louis**

Q3.2 Which building are you currently located in?

- CET - Doris (1)
- CET - Lab (2)
- CIC@4240 (3)

**Display the following questions for all clients**

Q3.6 How do you rate CIC overall?

(1= very poor; 5= very good)

- 1 (very poor) (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (very good) (5)

Q3.7 How does being located within CIC help the business you work for?

(1=not at all; 5 = very much)

	1 not at all (1)	2 (2)	3 (3)	4 (4)	5 very much (5)
Lower financial costs of starting a business (Q3.7_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lower non-financial costs of starting the business (e.g. save time, access to talent) (Q3.7_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Raise the sales/revenue prospects of the business (Q3.7_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Achieve stronger products (Q3.7_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Achieve more innovative/creative products (Q3.7_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better understand the business environment (Q3.7_6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better network among other businesses (Q3.7_7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recruit talented employees (Q3.7_8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make for an exciting place to work (Q3.7_9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
As a whole (Q3.7_10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q3.8 To what extent do you agree with the following statements?  
(1= strongly disagree; 5= strongly agree)

	1 strongly disagree (1)	2 (2)	3 (3)	4 (4)	5 strongly agree (5)
CIC is important because of access to companies at CIC (Q3.8_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What makes CIC important is access to companies in the vicinity of CIC (Q3.8_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CIC is important because of access to companies in the Greater Boston area (Q3.8_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The value that CIC provides is worth more than the cost to tenants (Q3.8_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Compared to other co-working facilities, CIC offers better opportunities for valuable connections (Q3.8_6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Q3.9 CIC Location

#### **Display the following questions for clients in MA (Cambridge and Boston)**

Display This Question:

*If "Which building are you currently located in?" "50 Milk Street" Is Not Selected*

Q3.10 Beyond the company you work for, were any of the following factors an important consideration for your decision to work at CIC: (mark all that apply)

- Commute to Kendall Square (1)
- Ability to live close to where I work (2)
- Access to MIT faculty (e.g. collaboration) (3)
- Access to MIT students (e.g. availability of interns, employees) (4)
- Access to Kendall Square services (e.g. restaurants) (5)
- Closeness to other innovative companies around Kendall Square (6)
- Just wanted to be in Cambridge; Kendal Square was not of particular importance (7)

Display This Question:

*If "Which building are you currently located in?" "50 Milk Street" Is Selected*

Q3.11 Beyond the company you work for, were any of the following factors an important consideration for your decision to work at CIC: (mark all that apply)

- Access to local universities (1)
- Commute to downtown (2)
- Proximity to Government Center and State House (3)
- Proximity to the Seaport Innovation District (4)
- Access to businesses downtown (5)
- Ability to live close to where I work (6)
- Access to downtown Boston services (e.g. restaurants) (7)
- Closeness to other innovative companies around downtown Boston (8)
- Just wanted to be in Boston; Milk Street was not of particular importance (9)
- Other (10)

Q3.12 Would you consider a future CIC facility in Allston near Harvard Business School and the new engineering school a viable alternative to current locations? (1= strongly disagree, 5= strongly agree)

- 1 (strongly disagree) (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (strongly agree) (5)

**Display the following questions for clients in St. Louis**

Q3.7 Beyond the company you work for, were any of the following factors an important consideration for your decision to work at CIC/CET:

(mark all that apply)

- Commute to Cortex (1)
- Ability to live close to where I work (2)
- Access to Washington University faculty (e.g. collaboration) (3)
- Access to St. Louis University faculty (e.g. collaboration) (4)
- Access to other universities' faculty (e.g. collaboration) (5)
- Access to Washington University students (e.g. availability of interns, employees) (6)
- Access to St. Louis University students (e.g. availability of interns, employees) (7)
- Access to other universities' students (e.g. availability of interns, employees) (8)
- Access to CET programming (9)
- Access to entrepreneurial support services (e.g. marketing, accounting, banking, etc.) (10)
- Access to talent within CIC/CET (11)
- Closeness to other innovative companies around Cortex (12)
- Just wanted to be in St Louis; Cortex was not of particular importance (13)
- Other (14)

Q3.8 Would you utilize a CIC facility in 39 North District (Danforth Plant Science Center Corridor)?  
(1= strongly disagree, 5= strongly agree)

- 1 (strongly disagree) (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (strongly agree) (5)

**Display the following questions for all clients**

**Q3.13 CIC Connections**

Q3.14 Outside of the employees of your company, how many persons at CIC do you know well enough to believe that they could be of benefit to your business over the next 6 months?

- None (1)
- 1-4 persons (2)
- 5-10 persons (3)
- 11-20 persons (4)
- More than 20 (5)

Q3.15 Outside of the employees of your company, how many persons at CIC do you know well enough to believe you would remember his or her name in six months if they left today?

- None (1)
- 1-4 persons (2)
- 5-10 persons (3)
- 11-20 persons (4)
- More than 20 (5)

**Display This Question:**

*If "Outside of the employees of your company, how many persons at CIC do you know well enough to believe they could be of benefit to your business over the next 6 months" or "Outside of the employees of your company, roughly how many people at CIC do you know well enough that you believe you would remember his or her name in six months if they left today?"*

*Is greater than "None"*

Q3.16 These contacts were mostly...

- developed after coming to CIC (1)
- known in advance prior to coming to CIC (2)

Q3.17 How purposeful are you in building your business network?

- Not at all (1)
- Somewhat (2)
- Average (3)
- Purposeful (4)
- Very purposeful (5)

**Q3.18 Where/How do you network at CIC?**

Please mark all that apply:

- Informally: Conversations or introductions at Venture Café (1)
- Informally: Conversations or introductions in a CIC kitchen (2)
- Other public spaces at CIC (3)
- Other informal channels (4)
- Purposefully seek out meetings with firms located inside CIC (ask via email, phone, LinkedIn,...) (5)
- Purposefully seek out meetings with firms located nearby / outside CIC (ask via email, phone, LinkedIn,...) (6)
- Other CIC-based firms purposefully ask to meet with me (7)
- Other (8)

**Q3.19 CIC Activities and Networking**

Q3.20 How important are the following CIC activities and features to you?  
(1= not at all important; 5= extremely important)

	1 not at all important (1)	2 (2)	3 (3)	4 (4)	5 extremely important (5)
Venture Café (Q3.20_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communal kitchen (Q3.20_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other public spaces (Q3.20_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lectures and events held at CIC (Q3.20_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CIC Community building gatherings (Q3.20_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q3.21 How often do you provide advice on the following topics to people outside of your company at CIC?

	Never (1)	Infrequent (2)	Monthly (3)	Weekly (4)
Business operations (Q3.21_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Venture funding (Q3.21_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technology (Q3.21_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suppliers (Q3.21_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People to recruit (Q3.21_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customers (Q3.21_6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q3.22 How often do you receive advice on the following topics from people outside of your company within CIC?

	Never (1)	Infrequent (2)	Monthly (3)	Weekly (4)
Business operations (Q3.22_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Venture funding (Q3.22_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technology (Q3.22_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suppliers (Q3.22_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People to recruit (Q3.22_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customers (Q3.22_6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Q3.23 Respondent Characteristics

Q3.24 What is your age?

- Under 25 (1)
- 25-34 (2)
- 35-44 (3)
- 45-54 (4)
- over 55 (5)
- Prefer not to say (6)

Q3.25 What is your gender?

- Male (1)
- Female (2)
- Non-binary / genderqueer (3)
- Prefer to self-describe: (4) \_\_\_\_\_
- Prefer not to say (5)

Q3.26 Were you born in the United States?

- Yes (1)
- No (2)
- Prefer not to say (3)

Q3.27 What is your race / ethnicity?

Mark all that apply.

- American Indian or Alaska Native (1)
- Asian (2)
- Black or African American (3)
- Hispanic/Latino/Spanish origin (4)
- Native Hawaiian or Pacific Islander (5)
- White (6)
- Other (7)
- Prefer to self-describe: (8) \_\_\_\_\_
- Prefer not to say (9)

Q3.28 Highest level of education

- No college education (1)
- Some college education (2)
- BA or equivalent degree (3)
- MA or equivalent degree (4)
- Doctorate or equivalent degree (5)

Q3.29 Field of highest degree:

- STEM field (1)
- Business or Economics (2)
- Other (3)

Q3.30 Prior industry experience: Have you previously worked in the same industry as the current firm?

- Yes (1)
- No (2)

Q3.31 Prior start-up experience: Have you previously worked in a startup?

- Yes (1)
- No (2)

Q3.32 Prior start-up experience: Have you previously founded a business?

- Yes (1)
- No (2)

Q3.33 Future start-up plans: Do you think you will ever start your own firm?

- Yes (1)
- No (2)
- Maybe (3)

### **Q3.34 Innovation and Risk Attitudes**

Q3.35 How much do you typically enjoy taking risks? (1= not at all happy to take risks; 10= very happy to take risks)

- 1 (not at all happy to take risks) (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)
- 8 (8)
- 9 (9)
- 10 (very happy to take risks) (10)

Q3.36 Some activities involve a "financial" risk, such as starting a business, investing, or gambling and betting — that is, there is a risk of losing money or other assets. In general, what is your propensity for accepting financial risks? (1= very low; 10= very high)

- 1 (very low) (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)
- 8 (8)
- 9 (9)
- 10 (very high) (10)

Q3.37 Have you ever been an inventor on a patent?

- Yes (1)
- No (2)

Q3.38 Has your company worked on (or is currently working on) a new innovation?

- Yes (1)
- No (2)

Display This Question:

*If "Has your company worked on (or is currently working on) a new innovation?" "Yes" Is Selected*

Q3.39 Does your company patent these innovations?

- No (1)
- Yes, it already has some patents (2)
- Yes, it intends to patent in future (none yet) (3)

Q3.40 Did individuals working at other CIC companies provide important insights to your company?

- Yes (1)
- No (2)

Display This Question:

*If "In your judgment, did individuals working at other companies at the CIC provide important insight..." "Yes" Is Selected*

Q3.41 Were these insights typically about the marketplace, the technology, or something else? (Please mark all that apply)

- Marketplace (1)
- Technology or innovation (including the product, process) (2)
- Strategy and business operations (3)
- Something else (4)

Display This Question:

*If "In your judgment, did individuals working at other companies at the CIC provide important insight..." "Yes" Is Selected*

Q3.42 How central were these insights to your business model?

(1= not at all; 5= essential)

- 1 (not at all) (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (essential) (5)

Display This Question:

*If "In your judgment, did individuals working at other companies at the CIC provide important insight..." "Yes" Is Selected*

Q3.43 What share of these insights came through unplanned interactions (vs. through intentional meetings)?

- 1 (mostly unplanned) (1)
- 2 (2)
- 3 (even mix) (3)
- 4 (4)
- 5 (mostly planned) (5)

Display This Question:

*If "In your judgment, did individuals working at other companies at the CIC provide important insight..." "Yes" Is Selected*

Q3.44 Would this expertise have been available within your company?

- Rarely or never (1)
- Sometimes (2)
- Frequently (3)

**Q3.45 The next and final section uses personality assessment tools. It takes 3 minutes to complete.**

**Q3.46 Personality**

Q3.47 How do the following statements agree with you? (1= strongly disagree; 5= strongly agree)

	1 strongly disagree (1)	2 (2)	3 (3)	4 (4)	5 strongly agree (5)
I am talkative (Q3.47_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am very thorough in my actions (Q3.47_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am original, come up with new ideas (Q3.47_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am reserved (Q3.47_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am relaxed, handle stress well (Q3.47_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a forgiving nature (Q3.47_6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get nervous easily and worry (Q3.47_7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have an active imagination (Q3.47_8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am often lazy (Q3.47_9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I value artistic, aesthetic experiences (Q3.47_10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am kind and considerate to others (Q3.47_11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do things efficiently (Q3.47_12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am social and outgoing (Q3.47_13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I work hard, I can successfully start a business (Q3.47_14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall, my skills and abilities will help me start a business (Q3.47_15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My past experience will be very valuable in starting a business (Q3.47_16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident I can put in the effort needed to start a business (Q3.47_17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that I am primarily responsible for my own successes and failures (Q3.47_18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a great deal of pride when I complete a project successfully (Q3.47_19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a desire to achieve positive results even if it requires a lot of additional effort (Q3.47_20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I surprise people with my novel ideas (Q3.47_21)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People ask me for help in creative activities (Q3.47_22)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get more satisfaction from mastering a skill than developing a new idea. (Q3.47_23)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer work that requires original thinking (Q3.47_24)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like a job which demands skill and practice rather than inventiveness (Q3.47_25)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am not a very creative person (Q3.47_26)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q3.48 Please select all types of events you would be interested in attending if held in the listed locations.

	Other CIC site (1)	District Hall (2)	Roxbury Innovation Center (3)
Venture Café / entrepreneurial gathering (Q3.48_1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expert forum / Lecture (Q3.48_2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Investor event / Pitch contest (Q3.48_3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q3.49 Is there anything else about CIC and its impact on you and your company that you would like to report?

Q3.50 Please let us know if you would like to receive a report with overall findings of this survey.

- Yes (5)
- No (6)

Q3.51 All respondents can either choose to receive a \$5 Amazon gift card, or to participate in a drawing for a \$2,000 gift card of choice. We expect to receive around 1000 participants in the drawing. Your email will only be used for this purpose, and no additional questions or other contact attempts will be made using the email address provided below. Please make your choice:

- Please send me a \$5 Amazon gift card. My email is (1) \_\_\_\_\_
- Please enter me in a drawing for the \$2,000 gift card. My email is (2) \_\_\_\_\_