



Skills to Succeed: Empowering Charlottesville's Under-Resourced Entrepreneurs

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The mosaic of images on this page displays the Community Investment Collaborative's entrepreneurs. More information about their businesses can be found at <https://www.cicville.org/entrepreneurs>



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DEFINITIONS

Appreciative Inquiry An approach to personal and organizational changes that is based on the assumption that questions and dialogue about strengths, successes, values, and dreams are transformational in themselves; focuses on positivity, use of examples, and co-constructing a shared vision of the future (Whitney & Trosten-Bloom, 2003).

Entrepreneur Scholars disagree on the definition of ‘entrepreneur,’ providing conflicting requirements on self-employment, business ownership, employee hiring, and innovation (Krause, n.d.).

Ethnographic Interview Qualitative research that combines immersive observation, questions, and listening.

Financial Capital An economic resource measured in monetary terms used in pursuit of future revenue.

Human Capital An individual’s skills, knowledge, or experience.

Main Street Entrepreneur The founder of a company that is more than five years old and employs 50 or fewer workers; company tends to have deep ties to community and faces unique challenges due to size and tenure (Wiens & Jackson, 2016).

Microbusiness An enterprise with fewer than five employees including the owner and which requires \$35,000 or less in start-up capital (Prosperity Now, n.d.).

Playbook Published material containing strategies to accomplish a goal.

Sensitivity Training Program intended to reveal behaviors and attitudes which may unknowingly offend others.

Small Business An independently owned and operated business which exerts little influence in its industry and has fewer than 500 employees (Small Business Administration, n.d.).

Social Capital Networks of relationships that facilitate cooperation within or across groups.

Stereotype Threat A situation in which an individual feels he or she is at risk of conforming to a preconceived, often derogatory, notion of his or her group.

Wise Intervention A means of intervention which targets the social psychological processes which contribute to a problem.

EXECUTIVE SUMMARY

Charlottesville's under-resourced entrepreneurs lack the business and financial management skills necessary to build and sustain stable businesses; skills that will enable them to leverage financial and market access resources provided by the Community Investment Collaborative (CIC) and skills that will empower them to pay themselves at or above the minimum wage. Though under-resourced entrepreneurs stand to benefit most from self-employment through entrepreneurship, gaining financial stability, independence, and a pathway out of poverty, they disproportionately lack access to the human capital which underpins their professional and personal success.

CIC's profound commitment to supporting Charlottesville's under-resourced entrepreneurs positions the organization to fill this skills-based access gap. The organization currently offers these entrepreneurs a comprehensive range of programming including an application-based training workshop which equips individuals with the tools to launch business ideas supplemented by mentoring, networking, and financial support. Within this suite of services, CIC faces compelling opportunity to maximize its impact and more directly ensure *all* entrepreneurs who begin the training program experience the continued operational benefits of CIC's resources. In this analysis I present four interventions, or policy options, which aim to decrease the skills and knowledge gap which prohibits entrepreneurs from realizing stable and sustainable operations at or above the minimum wage. I then evaluate each option against a standard set of cost effectiveness, accessibility, wage impact, and administrative capacity criteria. These options include:

1. Let present trends continue
2. Complete a Needs Assessment of the most under-resourced
3. Implement sensitivity training for mentors
4. Provide a professional networking playbook

Due to the vast spectrum of resource levels, business operations, and competencies across CIC's workshop training graduates, particularly among those most in-need (earning at or below the minimum wage), CIC must develop a feedback mechanism to identify these individuals' needs, find commonalities across these needs, and tailor new or current support services to address the needs which are most prevalent and pressing. By designing and implementing a Needs Assessment (Option 2) of its most under-resourced graduates who are developing or operating their own businesses within the community, CIC will not only unearth skills gaps which stifle these individuals' success but also target these gaps with swift action planning and training, networking, and mentoring programming modifications. These new and/or improved programs will directly help CIC's most under-resourced population, serving 40 to 59 entrepreneurs, and deliver content which will indirectly increase these individuals' ability to pay themselves at or above the minimum wage. Further, this Needs Assessment approach employs CIC's strong network of community support, rendering the solution cost effective at a cost of \$81-120 per entrepreneur served.

Ultimately, this Needs Assessment is only the first critical step. Upon its completion, CIC must iterate upon the Assessment's content and delivery methodology while continuing to translate its findings into carefully-crafted and closely-monitored support services.

PROBLEM DEFINITION

Two of three CIC program graduates who are developing or operating their own businesses report that they lack one or more business and/or financial management skills necessary to operate their microbusinesses stably and sustainably.

Launching and sustaining a small business requires more than just a good idea; to become successful, entrepreneurs require financial, human, and social capital. Under-resourced entrepreneurs, low-to-moderate income individuals with limited access to funding, business knowledge, and networks due to previous incarceration, gender, or minority status, stand to benefit the most from self-employment through entrepreneurship (Community Investment Collaborative, 2015). Small business ownership provides a conduit from poverty, creating opportunities for these under-resourced individuals to gain independence and financial stability. Barriers to entry for entrepreneurial ventures are low; individuals do not require consent from employers, substantial start-up capital, or a formal education (Baumol, 2005). In contrast, the individual payoff to business ownership is high. The median net worth of a business owner is 2.5 times that of a non-business owner and this multiple soars to 10 times for a black woman and 5 times for a Latino man (Association for Enterprise Opportunity, 2011). Not only do small businesses support their benefactors but they also stimulate the economies of the communities in which they operate. These businesses serve as necessary complements to the operations of large organizations, contribute to 50% of non-farm Gross Domestic Product (GDP), and create 60-80% of net new jobs in the United States (Gu et al., 2008).

Despite these benefits, many aspiring entrepreneurs face an access gap; they neither have access to finance, accounting, marketing, or human resources departments for operational assistance nor do they have the capital or creditworthiness to support their businesses and obtain funding at a reasonable interest rate. Compounding this problem, under-resourced entrepreneurs begin with, on average, lower levels of financial, human, and social capital than their higher-income counterparts and often reside in resource-impovertised localities (Servon & Bates, 1998; Roberts & Wortham, 2018).

Microbusiness support organizations have emerged to mitigate this access gap specifically targeting under-resourced demographics. In 2012, the founders of CIC created and launched a four-part program designed to equip Charlottesville's under-resourced entrepreneurs with the training, mentorship, capital, and network necessary to take their business ideas from concept to reality. Due to the success of CIC's current programming at meeting its mission to empower under-resourced entrepreneurs to develop and launch businesses, CIC faces a new set of challenges. CIC must now provide its graduates with the skills to achieve stable business operations and earn living wages. These skills are grounded in human capital and differ in practice and execution from those required to start a business. Without tacit knowledge and business experience, under-resourced entrepreneurs face a skills-based barrier to business survival and poverty alleviation as they cannot seize the capital and market access opportunities afforded to them by CIC.

INTRODUCTION

THE SUPERSIZED IMPACT OF SMALL BUSINESSES

Despite their slight footprint small businesses produce outsized benefits, supercharging the nation's economy through job creation and GDP growth (Gu et al., 2008). Small businesses are demonstrably more innovative than larger businesses as measured by patents and value index scores and complement the operations of these larger organizations by providing them with product components, professional services, and distribution channels (Breitzman & Hicks, 2008; Baumol, 2005; University of Minnesota, 2016). In the wake of the 2008 financial crisis, economists, politicians, and society turned to small businesses as a key growth driver in the rebounding financial climate (Roberts & Wortham, 2018). More specifically, these individuals turned to microbusinesses.

In 2011, microbusinesses represented 92% of all U.S. businesses. Microbusinesses produce direct, indirect, and induced economic benefits, in aggregate creating nearly 42 million jobs and injecting \$4.87 trillion into the post-recession economy (Association for Enterprise Opportunity, 2013). While these benefits appear substantial, they fall below their potential. According to a study by the Association for Enterprise Opportunity, if one of three microbusinesses hired a single additional employee, the U.S. would achieve full employment (Association for Enterprise Opportunity, 2011).

In addition to this macro-level impact, microbusinesses provide individual benefits, contributing to, on average, 38% of their owners' household income, creating jobs that foster skill development, and offering employment to local residents who are otherwise excluded from the labor market on the basis of advantage (Roberts & Wortham, 2018). Microbusinesses ownership and employment is the largest source of the nation's wealth after homeownership (Prosperity Now, n.d.).

BARRIERS & BENEFITS TO THE UNDER-RESOURCED

Historically, under-resourced populations are less likely than their peers to pursue and succeed at entrepreneurship through self-employment; they own a smaller number of businesses with, on average, weaker performance (Baumol, 2005). Though entry barriers to ownership are low, under-resourced individuals face unique challenges which limit their ability to launch and operate microbusinesses. To begin, low asset levels limit business entry. Further, individuals with disadvantaged backgrounds lack familial experience from which to receive business advice and professional support networks upon which to rely for stability and growth (Baumol, 2005).

These challenges pose significant hurdles to the individuals who stand to benefit most from entrepreneurship thus justifying direct and indirect interventions to reduce credit market imperfections, discrimination, and business skills gaps. These interventions aim to position under-resourced entrepreneurs for higher wages, better job stability, more benefits, and increased future wealth. Specifically, entrepreneurship through self-employment provides a compelling value proposition and pathway out of poverty for women, minorities, and formerly incarcerated individuals.

Women In 2017, nearly 32% of female-headed households in Virginia lived in poverty (National Women's Law Center, 2018). This poverty rate increases when filtering for a subset of women with children under the age of 18. Female-headed families in which at least one person owned a microbusiness generate \$8,000-13,000 more in annual income than counterpart non-business owning households. In 2010, the median hourly income of a female microbusiness owner was \$12.38, an amount substantially higher than the \$7.25 federal minimum wage earned by an increasingly female low-wage worker pool. Additionally, self-employment offers women flexibility to manage childcare and

family needs which traditional forms of employment do not accommodate and often punish (Association for Enterprise Opportunity, 2013).

Minorities The racial divide in entrepreneurship primarily derives from the reality that households of color, on average, have fewer assets to invest in a business. This asset deficit accounts for more than 15% of the gap in business creation for African-Americans and over 50% of the gap for Latinos (Klein & Liang, 2015). Compounding this economic access problem, Small Business Association (SBA) loans to African-American-owned firms dropped by almost half in the wake of the recession even though the SBA's total loan volume only decreased by a quarter (JP Morgan Chase & Co., 2016). Finally, evidence indicates racial minorities disproportionately lack the “know-how” and market access necessary for their businesses to succeed (Klein & Liang, 2015).

Formerly Incarcerated Individuals A lack of access to labor market opportunities for ex-offenders lowers the country's employment and contributes to high recidivism rates. Approximately 60-75% of formerly incarcerated individuals are not employed in the legitimate labor market one year after their release (Yang, 2016). They face categorical discrimination by employers who use personal information as a screening mechanism and are often unwilling to consider an equally qualified applicant with a criminal record. Compounding this discrimination, black ex-offenders are 20 percentage points less likely to receive a job offer than otherwise equivalent white ex-offenders (Pager, 2003). Initiatives like “Ban the Box” exist in response to this discrimination, encouraging employers to remove questions about conviction histories from employment applications (Ban the Box, n.d.). Interestingly, Ban the Box may actually increase employment discrimination against *all* black and Hispanic men as employers who now lack explicit information use imperfect attributes as proxies for criminal histories (Doleac, 2016). In addition to this persistent discrimination, formerly incarcerated individuals often have few or irrelevant business skills and gaps in their job histories which prevent them from pursuing traditional employment (Gomez & Thetford, 2015).

INPUTS FOR MICROBUSINESS SUCCESS

Microbusinesses exist within the dynamic influence of powerful owner-demographic, behavioral, and contextual forces (Keats & Bracker, 1988). Imbalance between or deficiencies within these constructs threaten small businesses' survival. Traditional literature as aggregated and analyzed in a World Bank meta-analysis attributes microbusiness failure to both macro-level imperfections, like information asymmetries and underdeveloped credit institutions, and firm-level constraints, like financial and management expertise (Cravo & Piza, 2016).

Put simply, to avoid failure, microbusiness entrepreneurs require access to three key resources: financial capital (money), human capital (skills), and social capital (a network). While entrepreneurs may require different amounts and variations of these resources, they risk failure in the absence of one of the three. Figure 1 elaborates the specific facets of each capital source upon which entrepreneurs draw on over the lifetime of their businesses.

Figure 1: The Success Equation



Source: Author created adapted from success factors identified by Benus et al., 2009; Davidsson & Benson., 2003; Servon & Bates, 1998 and reasons for failure identified by Cravo & Piza, 2016 and Peterson et al., 1983.

CIC's four-part support model echoes the need for a balanced combination of these resources. Critically, the under-resourced entrepreneurs who CIC serves not only begin with lower levels of access to these three forms of capital but also face substantially greater barriers to acquiring access as compared to their more-resourced peers (Community Investment Collaborative, n.d.).

RECONCILING SUCCESS MEASUREMENT

In contrast to the inputs to the success equation which are easily describable and widely agreed-upon by scholars, the output of the equation is neither static nor prescribed. Entrepreneurs begin their journey with different objectives in mind and thus measuring their success should reflect these differing goals. Broadly, the Kauffman Foundation categorizes entrepreneurs into three distinct types: Start-up, Growth, and Main Street (Morelix et al., 2017). The easiest and most frequently used metrics including profitability, sales, and job creation are most appropriate for assessing the success of Start-up and Growth entrepreneurs (Jarvis et al., 2000; Cravo & Piza, 2016). These entrepreneurs are driven by opportunity, not necessity, and aim to meet high-growth targets through scale. Rapid expansion is not the primary motivator for many entrepreneurs, particularly Main Street entrepreneurs who found microbusinesses. Rather, Main Street entrepreneurs value personal satisfaction, independence, and flexibility (Walker & Brown, 2004). Main Street entrepreneurs are often under-resourced and seek respite from poverty thus consistently paying oneself at or above the minimum wage represents success.

CIC operates in the Main Street entrepreneurship realm with the majority of its training program graduates positioned at or between the launch and survival phases of the business lifecycle (see Figure 2).

Figure 2: Main Street Entrepreneurship Journey



Source: Created by author adapted from Churchill & Lewis, 1983

QUANTIFYING THE SKILLS GAP

Of the 220+ entrepreneurs who have completed one of CIC's 16-week training workshops, 91 have opened their businesses and 26 have businesses under development. The following analysis focuses on these 117 entrepreneurs who sit within a relatively small portion of the business lifecycle (Community

Investment Collaborative, 2017a).¹ Each possesses a unique set of needs, however, modeled broadly these needs demonstrate a *skills* rather than capital access gap. Most entrepreneurs have secured the financial resources necessary to establish their microbusinesses and, while they do not necessarily have the financial means to operate these businesses as stable first-stage ventures, they lack the business management skills and knowledge needed to progress to that phase. In the 2016 annual alumni survey, CIC workshop graduates who were developing or operating businesses expressed an overwhelming desire to receive continued support from CIC with business management skill-building. Of these respondents, survey data shows that:

- 27% were unsure about or could use assistance with **time management**
- 33% were unsure about or could use assistance with **handling sales growth**
- 48% were unsure about or could use assistance with **marketing**
- 35% were unsure about or could use assistance with **paying themselves**.²

Importantly, the scope of interventions, or policy options contained in this analysis focuses on this skills gap directly expressed by CIC training workshop graduates. These interventions do not address the needs of under-resourced individuals who have yet to complete CIC's 16-week training program.

Despite their specific focus on skill-building, these interventions do have substantive second-order impacts for workshop graduates, potentially improving credit access, lending options, and cash flow problems for under-resourced entrepreneurs (Corporation for Enterprise Development, n.d.). Interestingly, the same survey data shows that 44% of respondents did not intend to need outside financing for 1-2 years, demonstrating that their most immediate need is skills-based (Community Investment Collaborative, 2016).

OPERATING IN CONTEXT: CHARLOTTESVILLE, VA

CIC's entrepreneurs do not launch and operate their microbusinesses in a vacuum. In this case, the proverbial "Main Street" on which entrepreneurs build their businesses is Charlottesville, Virginia and its surrounding counties (Albemarle, Fluvanna, Louisa, Greene and Nelson); a context with racial tensions, dramatic income inequality, immense talent, and outsized philanthropic potential.

On August 11th and 12th of 2017, violent riots in Charlottesville revealed deep-seeded racial tension within the community. The riots initially began as a white nationalist protest against the city's plan to tear down Confederate monuments. White nationalists arrived highly organized and heavily armed, holding a torch-lit march on August 11th and a "Unite the Right" rally the following day. Both events sought to showcase alt-right and Neo-Nazi sentiments, providing gross displays of bigotry, violence, and extremism. During the rally, chaos ensued as violent clashes with counter-protestors results in 35 injuries and one death. Though many white nationalists traveled to the city from outside of Charlottesville, the racist ideology that their actions represented and the Confederate symbolism that inspired their action highlight a culturally engrained division among races in Charlottesville (Lopez, 2017).

Demographically, Charlottesville's population is 66.5% white, 19.3% African American, 6.7% Asian, and 4.9% Hispanic or Latino. Women own just over 35% of Charlottesville's businesses, and, on average,

¹ Numbers taken from 2017 Alumni Survey with supplemental data from 2016. Data differs based on year and source. See Appendix I for assumptions.

² Questions regarding business management skills not included in 2017 Alumni Survey thus analysis employs 2016 findings.

Charlottesville's males earn an annual income 1.47 times higher than women (United States Census Bureau, 2018). Charlottesville's unemployment rate fluctuates between 3.3% and 3.4%, falling somewhat below the national average of 4% (The City of Charlottesville Office of Economic Development, 2018). Despite this superior performance against the national unemployment average, Charlottesville's income inequality (Gini coefficient of .51) measures higher than the national average (Gini coefficient of .39) demonstrating that the distribution of wealth within the area is highly concentrated (Data USA, 2018).

Charlottesville is home to the University of Virginia (UVA), an esteemed public university with annual enrollments of 23,000+ students that confers 6,000+ degrees each year. *U.S. News and World Report* named UVA the second best public university in the country in 2017. Charlottesville businesses derive benefits from the university's research, training facilities, faculty, and students. Aside from UVA's impact, Charlottesville's resident population exhibits high levels of educational attainment, with 51.4% of the 46,912-resident population earning a bachelor's degree or above and 26.9% of the total possessing a graduate or professional degree (Data USA, 2018).

National publications affirm Charlottesville's concentration of wealth is likely driven by a highly educated subset of the population. Charlottesville consistently ranks within the top 20 cities in *Forbes* "Wealthiest and Most Charitable" list. The income of Charlottesville's wealthiest ranks on par with some of the nation's richest communities including Beverly Hills, CA and Palm Beach, FL (Talhelm, 2011). In 2017, Charlottesville earned *Forbes* 15th spot for "Best Small Places for Business and Careers." ("The best small places for business and careers," 2017). Correspondingly, Charlottesville experiences vast philanthropic support and engagement with one community foundation donating \$16.3 million in community grants in 2016 (Charlottesville Community Foundation, 2016).

Despite Charlottesville's established business ecosystem and pool of wealth, a disconnect exists and persists between business owners and the philanthropic base. Racially-motivated, gendered power dynamics and a lack of appropriate applications of readily available capital fuel this divide, creating an under-resourced population with untapped potential to succeed.

EVALUATIVE CRITERIA

I propose policy options aimed to mitigate CIC's most under-resourced entrepreneurs' skills gap and evaluate these options against a standard set of cost, effectiveness, and feasibility criteria. These criteria described herein provide a mechanism for consistent comparison, allowing me to recommend the most appropriate policy option to CIC given the organization's need to meet its missions within steadfast resource constraints.

(1) COST EFFECTIVENESS

CIC relies on multiple funding sources including the government, corporations, foundations, and individuals to support its initiatives. Given this limited pool of resources and the competing priorities of many CIC programs, this cost effectiveness criteria serves as a critical gauge of expenditure per entrepreneur served. I calculate the cost effectiveness of each option by projecting the total population of entrepreneurs developing and operating their own businesses which the option serves and estimating its total annual cost. The most cost-effective option is the one which yields the most entrepreneurs served at the lowest cost.

I measure each option against this criterion using the average cost effectiveness ratio, annual dollars spent per entrepreneur served.

(2) ACCESSIBILITY TO MOST UNDER-RESOURCED

CIC seeks to develop and grow the businesses of under-resourced entrepreneurs. Within this population a spectrum of needs and challenges exists. Unlike many entrepreneurial training programs, CIC chooses not to focus on the "quick-wins," entrepreneurs with well-formulated business ideas and foundational skills, rather CIC aims to empower the entrepreneurs *most vulnerable* to setbacks and failure. These clients often have the least access to resources, require the most tailored assistance and monitoring, and stand to benefit the most from success in their businesses. This criterion measures the extent to which each option is appropriate for and accessible to entrepreneurs in the most need of support.

I measure this criterion using the number of *most* under-resourced entrepreneurs served by each option.

(3) MINIMUM WAGE IMPACT

Many of CIC's entrepreneurs launch their businesses out of necessity, aspiring to escape poverty through self-employment. An effective option not only ensures entrepreneurs have the skills to operate stable businesses but also promotes financially sustainable business models which allow entrepreneurs to pay themselves at or above Virginia's minimum wage of \$7.25 per hour ("Virginia minimum wage for 2017, 2018," 2018). This criterion measures whether an option has a direct, indirect, or no effect on entrepreneurs' wage-earning potential over the following year.

Rather than fragment my analysis by determining each option's impact on each specific skill (i.e. time management, handling sales growth, marketing, paying themselves), I use minimum wage as a proxy for entrepreneurs acquiring a combination of skills. In effect, this second-order criterion provides an aggregate measure of an entrepreneur's acquisition of all skills, allowing for different entrepreneurs to learn different skills.

I measure this criterion against the following scale:

- High: option directly increases wages specifically for those earnings less than \$7.25/hr
- Moderate: option indirectly increases wages for some or all beneficiaries not targeted at below minimum wage-earners
- Low: option has no clear direct or indirect effect on wages

(4) ADMINISTRATIVE FEASIBILITY

This criterion assesses whether CIC can support each option with its current resource pool of five full-time staff members. Each option increases the burden of work on one or many staff members. For an option to be administratively feasible this increase in time and responsibility cannot exceed the number of hours or range of expertise available within CIC's current resource capacity. CIC will not hire additional employees to support the implementation of a policy option.

I measure this criterion using the number of days to complete each option.

METHODOLOGY

As a 501c3 nonprofit, CIC relies on external support to fund its initiatives. Though the organization has increased its annual operating budget consistently year-over-year since its founding in 2012, CIC faces competing priorities for funding among its many programs and initiatives. This financial constraint motivates the primary basis upon which I compare my policy options, cost effectiveness, and renders its calculation methodology critical to my analysis.

I estimate the number of entrepreneur beneficiaries for each option using CIC Alumni Survey Data. CIC administers this survey to its workshop graduates annually. All data are self-reported by graduates. On average, CIC enjoys a roughly 50% response rate from graduates. The organization supplements each year's data with that of the previous year (when available) to account for unresponsive alumni, adding robustness to the data set. My analysis employs three sets of data: 2016 survey results, 2017 survey results, and 2017 survey results with 2016 additions. I present cost effectiveness projections across all relevant and available data.

I focus my analysis on entrepreneurs who have graduated from the workshop; these are individuals who self-report they are “developing” or “operating” their own businesses. This scoped subset represents the population needing skills-based support.

Though classically the “most under-resourced” are those earning below the minimum wage, the structure and granularity of the survey data requires that I broaden this definition to include those who earn the minimum wage and slightly above, reporting themselves within the survey's minimum to \$10 per hour wage bracket. I apply the proportion of respondents in this earnings bracket ($\frac{\# \text{ respondents earning minimum wage to } \$10 \text{ per hour}}{\# \text{ non-blank responses}}$) to those who left the question blank, assuming that a similar percentage of non-respondents will fall within the lowest earning bracket. The “most under-resourced” group therefore equals the sum of those who identify in the lowest bracket plus a proportion of non-respondents. This conservative assumption may underrepresent actual number of non-respondents who fall into the “most under-resourced” category as these individuals may not wish to disclose very low wages or complete the survey in full. Appendix I presents the specific numbers which accompany these assumptions.

To project the cost of each option I estimate both time and resource costs. I estimate a composite hourly wage for CIC staff members based on 2017 budget materials which I received during Board meetings and on publicly available salary information. I assume CIC employs four full-time employees (FTEs) including the Executive Director.³ As CIC staff is comprised of salaried employees, this crude hourly wage calculation simply serves as a basis for monetizing and comparing staff time across options. I assume volunteers may aid FTEs in implementing the policy options and account for this unpaid assistance in my modeling. I assume CIC faces no constraints on community involvement and the organization's founders, Board, and volunteer base are strong and engaged.

I project outcomes over the course of one year. This time horizon is reasonable as CIC is a relatively new organization with operations of just over 5 years. Projecting beyond a year would challenge the viability of my assumptions.

³ As of 2018, CIC employs five FTEs; 2017 budget numbers do not include this additional employee thus he/she was excluded from the calculation.

CONSTRAINED OPTIMIZATION CAVEAT

As the policy options presented here seek to mitigate the skills-gap for CIC workshop graduates often through modifications to current programming, these options cannot divert financial resources which would otherwise support the workshop, mentor, and secondary training programs. Given the reality of this financial constraint, CIC must choose one policy option which optimizes entrepreneurial outcomes while remaining within reasonable budget projections. In short, CIC cannot implement more than one policy option given its current resource capacity and annual operating budget of less than \$400,000 (Guidestar, 2018).

POLICY OPTIONS

I present four interventions, or policy options, which build business and financial management skills in CIC's entrepreneurs. These options specifically engage CIC's workshop graduates who are developing or have launched entrepreneurial microbusinesses within Charlottesville and the surrounding area. If implemented, each policy option aims to decrease the skills and knowledge gap which prohibits these entrepreneurs from realizing stable and sustainable operations at or above the minimum wage. Options include:

1. Let present trends continue
2. Complete a Needs Assessment of the most under-resourced
3. Implement sensitivity training for mentors
4. Provide a professional networking playbook

OPTION 1: LET PRESENT TRENDS CONTINUE

Table 1: Present Trends Option Summary

Option Summary			
Objective	None		
Fit with Current Programming	No change		
Mechanism for Skill-Building	Maintain current programming		
Evaluation			
Cost Effectiveness	Accessibility to Most Under-Resourced	Minimum Wage Impact	Administrative Feasibility
\$0 / entrepreneur served	0 entrepreneurs served	Low	0 days required

Description

CIC continues to support its workshop graduates with their business management needs on an ad hoc basis. At present, CIC's staff members maintain contact with and often have strong ties to workshop graduates. Graduates confide in CIC's four tenured staff members who answer requests and offer advice as needed. While CIC staff provides tailored assistance to these entrepreneurs, they often lack the capacity and/or functional expertise to respond quickly or efficiently. This option represents the status quo and serves as a point of comparison for my proposed options.

Evaluation

Cost Effectiveness (\$0 per entrepreneur served)

Under the status quo, CIC will neither incur additional costs nor increase its impact. The cost effectiveness of this option is therefore \$0 per entrepreneur served.

Accessibility to Most Under-Resourced (0 entrepreneurs served)

Under this option, CIC will not provide any additional services to the most under-resourced. This option therefore performs poorly against this criterion. Individuals who are lagging behind or systematically hard to reach will continue to fall through the proverbial cracks. CIC programming will focus on the needs of those who take the initiative to express them explicitly.

Minimum Wage Impact (Low)

This option has no clear effect on the wages of CIC's entrepreneurs. Those who earn at or below the minimum wage will not acquire skills that they would not otherwise learn and therefore will not improve their well-being beyond their present trends state. This option ranks Low against this criterion.

Administrative Capacity (0 days required)

This option presents no change to CIC's current staff responsibilities and therefore achieves a superior rank against this criterion. Staff will not need to acquire any additional expertise or dedicate time to additional tasks.

OPTION 2: COMPLETE NEEDS ASSESSMENT OF MOST UNDER-RESOURCED

Table 2: Needs Assessment Option Summary

Option Summary			
Objective	Identify skill-based needs of most under resourced workshop graduates whose businesses are under development or have launched		
Fit with Current Programming	Contributes content and relevant attendees to CIC’s second-stage training workshops; informs changes to mentor, networking, and loan programs		
Mechanism for Skill-Building	Allows CIC to design and deliver targeted content on specific skill sets		
Evaluation			
Cost Effectiveness	Accessibility to Most Under-Resourced	Minimum Wage Impact	Administrative Feasibility
\$81-\$120 / entrepreneur served	40-59 entrepreneurs served	Moderate	19 days required

Description

CIC designs and implements a Needs Assessment, creating a critical feedback mechanism which will allow the organization to collect and align the diverse needs of workshop graduates, prioritize these needs, and tailor programming appropriately. Under this option, CIC will focus on engaging graduates who are the most under-resourced, hardest to reach, or lagging behind. CIC's current feedback mechanism is its annual alumni survey. The survey's response rate falls well below 100% and CIC leadership believes that graduates who are struggling the most are the least likely to respond without encouragement.

CIC will pilot an in-person needs assessment to increase under-resourced participation and gather more detailed qualitative information on their needs. This pilot will (1) probe the behaviors which make some individuals systematically hard to reach, (2) inventory their competency gaps and skills-based needs, (3) and collect preferences for future communication.

The results of this pilot assessment will inform CIC's strategy for engaging all of its graduates in second stage training workshops, not just the most advanced and responsive entrepreneurs. The data CIC gathers will further inform CIC's approach to current mentor and networking support programs. CIC may choose to extend this pilot, creating a more frequent and in-depth assessment on a less personnel-intensive platform.

Evaluation

Cost Effectiveness (\$81 - \$120 / entrepreneur served)

This option will cost CIC between \$81 and \$120 per entrepreneur served. Many staff and resource costs accompany this option. Based on best practices for needs assessment design, implementation, and analysis, CIC will incur staff costs of \$3,600 (World Health Organization, 2005). This estimate accounts for the approximate number Assessments staff will conduct equivalent to the population of most under-resourced entrepreneurs (40 to 59 individuals). Further this estimate assumes 2 FTE will complete the in-person assessments, however, as modeled the calculation requires only 1.5 FTE. This reduction implies that volunteer assistance will supplement staff member efforts and reduce overall cost to CIC. Given that these assessments occur in person, this calculation assumes staff and volunteers conduct

three assessments per day. In addition to staff costs, this option presents \$200 of materials cost (i.e. printed guides) and \$1,000 in travel cost. CIC will spread the total cost (\$4,800) of this one-time needs assessment across 40 to 59 under-resourced entrepreneurs thus realizing the above effectiveness measure. I present a fully detailed analysis in Appendix II.

Accessibility to Most Under-Resourced (40-59 entrepreneurs served)

This option specifically targets the most under-resourced and therefore performs relatively well against this criterion. Not only will CIC staff focus solely on these individuals, they will meet them in their home or place of work thus minimizing the opportunity cost of participating in the Assessment. Further, the secondary training workshops and programming modifications which result from the data collected throughout this Assessment will specifically benefit these individuals as their content, length, and timing will arise from their explicitly stated needs and preferences.

Minimum Wage Impact (Moderate)

While this option increases the likelihood that CIC's most under-resourced entrepreneurs will pay themselves at or above the minimum wage, it does so indirectly and with a significant time lag. Upon completion of the Needs Assessment, CIC staff will determine what skill-based training or intervention is most appropriate for these entrepreneurs. Staff must then design, schedule, and deliver this training or programming change. Brookings Institute and Department of Labor evaluations of both simple and complex skills-based interventions provide compelling evidence of positive effects on wages and business survivability particularly for those who were previously unemployed (Grimm, 2016; Benus et al., 2009). Therefore, recipients who practice learned skills increase their likelihood earning higher wages. Importantly, as this option only targets the most under-resourced, it has no impact on the wages of other entrepreneurs developing or operating businesses. This option therefore achieves a Moderate score against this criterion.

Administrative Capacity (19 days required)

Although this option is resource-intensive, it leverages CIC's ties with community members and thus performs moderately against this criterion. In order to effectively implement this option, CIC must complete in-person assessments. This process not only requires staff time but also diverts resources from other activities. Encouragingly, CIC staff has strong rapport with workshop graduates, thus lessening the emotional burden and stress of these visits. CIC's Co-Founder, Wendy Brown, has expressed interest in interviewing the workshop graduates. Wendy and other similarly invested community members, therefore, provide key additions to the CIC staff and will likely participate in this option enthusiastically and willingly.

OPTION 3: IMPLEMENT SENSITIVITY TRAINING FOR MENTORS

Table 3: Sensitivity Training Option Summary

Option Summary			
Objective	Reduce stereotype threat and frictions in mentor pairing to increase trust and relationship duration		
Fit with Current Programming	Strengthens current one-to-one mentor program		
Mechanism for Skill-Building	Creates mentor-mentee relationships which promote skills-based learning and knowledge transfer		
Evaluation			
Cost Effectiveness	Accessibility to Most Under-Resourced	Minimum Wage Impact	Administrative Feasibility
\$15-\$49 / entrepreneur served	9-12 entrepreneurs served	Moderate	4.75 days required

Description

CIC delivers sensitivity training to its volunteer mentors to bolster existing mentor-mentee relationships, foster new and persistent matches, and empower entrepreneurs with ownership over business problem-solving. Under this option, CIC will transform its current one-to-one mentorship program into a more collaborative and motivating experience for entrepreneurs. CIC's supply of mentors currently outpaces entrepreneur demand. These mentors, predominately retired white male executives, are eager to offer their time and expertise. Mentees, under-resourced minorities and/or women, often feel skeptical of, threatened by, or uncomfortable with their assigned mentors due to gendered or racially-motivated stereotype threat. These stress factors constantly pull at the fabric of trust which underlies each mentorship pairing, rendering mentors less effective coaches and skill-builders and sometimes resulting in unproductive or short-lived relationships.

CIC will directly address stereotype threat with volunteer mentors prior to matching by designing and implementing a sensitivity training which unearths potential unconscious biases, reveals tensions mentees may experience, and teaches mentors to coach the entrepreneurs through constructive feedback and wise interventions (Cohen et al., 1999). This training will shift mentors' approach from imposing solutions to listening and diffuse skepticism and distrust from mentees.

Tactically, CIC will deliver this training both in written material and in person. Given the strong-willed nature of many retired executives, CIC will first establish its credibility by priming the mentors with one or many academic articles that highlight the stifling effects of power dynamics in the workplace. CIC will draw upon the Darden School's Leadership Organization faculty to curate this content. CIC will then conduct an in-person pre-match orientation facilitated by CIC staff at or prior to monthly mentor networking lunches.

Ultimately, this training will not only benefit mentors who will likely feel a deeper sense of connectedness to their mentee's businesses but also it will empower CIC workshop graduates with persistent encouragement and approachable advice to build skills and achieve business stability.

Evaluation

Cost Effectiveness (\$15 - \$49 per entrepreneur served)

Under this option, CIC will incur a cost of \$15 to \$49 per entrepreneur served by a mentor. The primary cost associated with this option is \$633 in staff costs. This estimate represents a roll-up of hourly wages earned by one CIC staff member during the design and delivery of the sensitivity training. Critically, the design phase relies on external resources and assumes four hours of collaboration with experts at the Darden School or in the community. This assumption necessitates expert availability and willingness to participate. CIC may choose to print training materials for mentors, thus the total cost estimate includes \$200 of materials expenses. I present a range of total beneficiaries over which CIC will spread the cost of the sensitivity training. Anecdotal evidence from CIC leadership indicates not all mentors are responsive to training. Further, Cohen et al. (1999) indicate differing levels of impact measured through bias perception and task motivation across recipients of mentor feedback. Specifically, black recipients of wise intervention-based feedback, which invokes high standards and assurances, respond significantly more positively than white recipients. The beneficiary calculation, therefore, incorporates three scenarios for combined responsiveness from mentors and mentees: completely responsive (100% uptake), majority responsive (75% uptake), and somewhat responsive (50% uptake). Dividing the total cost by each of these projected beneficiary totals forms the cost effectiveness range. I elaborate all calculations in Appendix III.

Accessibility to Most Under-Resourced (9-12 entrepreneurs served)

Some of CIC's most under-resourced will benefit from this option, therefore, it receives a moderate evaluation against this criterion. In 2016, only 28% (9 entrepreneurs) in the lowest wage bracket were paired with a mentor. These individuals will likely receive the benefits of this option; however, they do not represent the majority of CIC's most under-resourced population as defined in this analysis. This option ranks somewhat unsatisfactorily against this criterion due to a selection bias. CIC only pairs entrepreneurs with mentors who are personally and professionally ready for the support. The most under-resourced entrepreneurs likely do not meet this readiness threshold and remain unmatched until further development.

Minimum Wage Impact (Moderate)

This option indirectly increases the likelihood that CIC's entrepreneurs will pay themselves at or above the minimum wage. According to Chrisman (2014) and Duggan (2015), effective mentorships or individualized consulting services increase incremental sales revenue and profits, thus allowing entrepreneurs to earn more from their businesses. As the goal of the sensitivity training is to make mentor pairings more effective, many entrepreneurs will experience revenue and profit effects as a result of their mentor's advice. This effect is neither certain nor spread across all of CIC's entrepreneurs, therefore, this option earns a Moderate rank against this criterion.

Administrative Capacity (4.75 days required)

This option is highly feasible as it requires effort from one FTE, leverages outside and existing expertise, and requires less than five full days of additional work, it. This option seamlessly integrates into existing programming thus making content creation its only significant administrative burden. Faculty at both the Batten and Darden Schools who specialize in the areas of unconscious bias and power dynamics will aid in the development of this content. CIC's friendly relationships with the University and willingness by the faculty to contribute to the community (particularly in their areas of specialty) rationalize this assumption. Further, CIC will require little time and effort from these experts (4 hours or less).

OPTION 4: PROVIDE A PROFESSIONAL NETWORKING PLAYBOOK

Table 5: Playbook Option Summary

Option Summary			
Objective	Provide networking training and advice through print material		
Fit with Current Programming	New program		
Mechanism for Skill-Building	Self-directed learning and practice of new skills by recipient		
Evaluation			
Cost Effectiveness	Accessibility to Most Under-Resourced	Minimum Wage Impact	Administrative Feasibility
\$91-\$140 / entrepreneur served	0 entrepreneurs served	Moderate	3.25 days required

Description

CIC provides workshop graduates with a professional networking playbook. By developing and publishing a playbook of aggregate advice and general networking strategies, CIC will provide its entrepreneurs with the motivation and instruction to expand their distribution, reach new customers through network extension, and raise brand awareness in their industry and the community. The playbook will provide entrepreneurs with the tools to grow their businesses through partnerships, positioning them to identify and seize future business opportunities.

The playbook will contain several distinct components assembled to prepare entrepreneurs to locate partners, articulate and tailor their value propositions, and present themselves in a professional manner. As many of CIC's entrepreneurs lack any foundational community or industry network, the first section of the playbook will outline different types of partners (service, distribution, retail) and the value they might bring. This section will emphasize unconventional thinking and opportunities for cross-selling complementary goods and services. The subsequent section will instruct entrepreneurs how to build and communicate the value proposition of their businesses. This section will elaborate strategies for adapting business models to various contexts and partner needs (i.e. through selling on consignment) and explain other levers which might increase self-space, advertising, or brand awareness. Lastly, the playbook will include "rules of thumb" for professional attire, communication, and partner relationship management. CIC will develop, publish, and distribute the playbook to workshop graduates free of charge. Upon publication, the playbook will require infrequent updates thus offsetting the upfront development cost. This option uniquely places the responsibility for skill-building on entrepreneurs, impelling them to test network-building strategies in the field and learn by doing.

Importantly, CIC could increase the scope of this option by adding specific local businesses grouped by size, function, and product/service interest. While this modification would provide more concrete guidance to entrepreneurs on partnership opportunities, it would also increase the ongoing cost for CIC newly tasked with curating and maintaining local business relationships.

Evaluation

Cost Effectiveness (\$91 – \$140 per entrepreneur served)

CIC will spend between \$91 and \$140 per entrepreneur served by this option. Several key cost and effectiveness assumptions underlie this calculation. First, playbook design and distribution costs total \$433, an estimate which follows a development schedule (outlined in Appendix IV) conducted by one FTE. Print and postage costs comprise the majority of this option's cost. Assuming CIC prints 100 ten-page playbooks, a length based on proposed content and scope based on the number of operating and developing businesses accounted for in Alumni Survey results, CIC will likely receive a bulk discount from a local supplier (such as Fedex Print & Office). An online estimate suggests this print cost will be \$590 (Fedex Print, 2018). CIC will also incur postage costs of \$0.98 per large envelope, amounting to \$98 in total postage costs (United States Postal Service, 2017). Mailing the playbooks rather than distributing them in-person will maximize CIC's reach in a time and resource-efficient manner. These personnel, print, and postage costs sum to a total cost of \$1,121.

Though CIC will distribute the playbook to all entrepreneurs developing or operating a business, this total population will not receive the benefits of the playbook as nearly 58% will not read and few who read it will change their behavior (Mansfield, 2017; Grimshaw et al., 2001). I reasonably assume all entrepreneurs have basic literacy skills as they have completed CIC's workshop training program delivered in-part via written curriculum. As the majority of the mixed evidence in Grimshaw et al.'s (2001) meta-analysis on the effectiveness of print materials on behavior change arises from the healthcare field and often deals with addictive substances, I lean toward the optimistic side of the authors' findings and assume a small fraction (25%) of those who read the playbook will practice new networking behavior. I justify this optimism with the following recommendations for playbook design. CIC will invoke elements of McGuire's communication/persuasion model proven effective at changing behavior. Specifically, CIC will tailor the playbook's content to the local context ensuring it is encouraging, easily understandable, and directly applicable (Bull et al., 2001). These design elements are realistic given the small scope of distribution and CIC staff's deep understanding of graduates' motivation and self-efficacy. Accordingly, if 42% of entrepreneurs read the playbook and 25% learn from it, CIC will amortize the cost across 8 to 12 beneficiaries.

Accessibility to Most Under-Resourced (0 entrepreneurs served)

This option produces no targeted benefits for the most under-resourced and performs poorly against this criterion. While CIC will distribute the playbook to all developing and operating business owners, including the most under-resourced, these individuals are the least likely to receive, read, and internalize the material. Many of the most under-resourced entrepreneurs may not have a reliable address at which to receive mail. Further, these individuals likely have low reading comprehension and face high opportunity costs associated with taking time away from other activities to engage in self-directed learning. These individuals may benefit from print material accompanied by a reinforcing intervention, a supplemental set of programming which is out of scope for this option (Grimshaw et al., 2001). Given these factors, CIC's relatively more-resourced entrepreneurs with reliable access to mail, adequate reading comprehension skills, and sufficient leisure time will likely comprise the 8-12 individuals who benefit from this option.

Minimum Wage Impact (Moderate)

This option most directly benefits individuals in the higher wage brackets rather than those at or below the minimum wage (see Accessibility criterion) and thus receives a Moderate rank. Individuals in these upper wage brackets who internalize and practice new behavior learned from the playbook will begin to

establish a network which will allow them to learn behavioral changes from others, reduce transaction and recruitment costs, leverage external economies for scale, and decrease information asymmetries. These benefits enhance businesses' overall competitiveness, increasing their wage potential above the status quo (Deakins & Freel, 1998; Chell & Baines, 2000; Petersen & Rajan, 1994).

Administrative Capacity (3.25 days required)

This option performs strongly against this criterion as it adds less than one week of effort to the workload of one FTE equivalent. Upon developing and distributing the playbook, this option requires little to no ongoing work, thus justifying the upfront effort.

OUTCOMES MATRIX

Table 6: Summary Matrix of Options, Criteria, & Performance

Alternatives	Cost Effectiveness			Accessibility to Most Under-Resourced	Minimum Wage Impact	Administrative Capacity
	Total Cost	# Entrepreneurs Served	Average Cost Effectiveness Ratio	# Under-Resourced Entrepreneurs Served	Score	Days Required
Option 1: Present Trends	\$0	0	\$0	0	Low	0
Option 2: Needs Assessment	\$4,800	40-59	\$81-\$120	40-59	Moderate	19
Option 3: Sensitivity Training	\$833	13-41	\$15-\$49	9-12	Moderate	4.75
Option 4: Networking Playbook	\$1,121	8-12	\$91-\$140	0	Moderate	3.25

DISCUSSION

I conduct a sensitivity analysis to understand the impact of my assumptions on each option's relative performance and confront tradeoffs among my options. As Options 1 and 4 do not serve any of the most under resourced individuals, I focus my analysis on the levers which make Options 2 and 3 more comparable, driving down the cost of 2 and increasing the impact of 3.

Across all options, the average cost effectiveness ratio of Option 2, the alternative which requires the most time and staff resources, responds most dramatically to changes in my average hourly wage assumption. Despite this sensitivity, the presence of other costs and large difference in time required ensures that the range of cost effectiveness estimates for Option 2 remains above the range for Option 3 at all possible wages for CIC staff above the minimum wage. Therefore, after excluding Option 1 which serves zero entrepreneurs, Option 3 remains the most cost-effective option for all CIC wages.

Under current assumptions, Option 2 requires moderate volunteer assistance for data collection. Should CIC reasonably anticipate it could increase volunteer participation and decrease its salaried-resource needs from 1.5 FTEs to one FTE, the organization could realize approximately \$10 savings per entrepreneur, pushing the cost effectiveness ratio down to \$70-103. Conversely, should data analysis under this option require more than the allotted two weeks, this option's cost effectiveness ratio will increase by roughly \$4 per additional day. In short, while CIC could reduce Option 2's cost through resource savings, the organization faces a realistic risk of delay which (if of significant magnitude) may offset resource-based savings. A test of assumptions under Option 3 shows that a sensitivity training with only 30% responsiveness is equivalently if not more cost effective than Option 2 as the upper bound cost estimate under this new assumption is \$81 / entrepreneur served.

Finally, as projected, Option 3 serves fewer most under-resourced entrepreneurs than Option 2 with estimate ranges which differ by 28 individuals or more. If *all* non-respondents paired with a mentor fall into the minimum wage bracket (as opposed to only a proportion) and if all developing businesses paired with a mentor also fall into this bracket, Option 3 has the potential to reach not 9-12, but 27 most under-resourced individuals. This increased scope of impact assumes 100% responsiveness from mentors and mentees. While larger, this impact still falls below the reach of Option 2 by 13 individuals.

RECOMMENDATION

Based on my evaluation of each option's performance (Table 6) and sensitivity analysis, I recommend CIC undertake **Option 2: Complete a Needs Assessment of the Most Under-Resourced**. While this option is the most expensive, the scope and immediacy of its impact combined with its long-term potential for initiating broad programming improvements justify the upfront cost.

Scope In absolute terms this option serves the greatest number of entrepreneurs, all of whom are the most under-resourced. These individuals will benefit directly from the Needs Assessment as the cost to participate is low, CIC assessors come to their place of work, and there is no immediate expectation for follow up action. Further, explicit and implicit cut offs do not narrow this option's scope; for example, an entrepreneur need not be able to read or be paired with a mentor to benefit.

Immediacy A Needs Assessment will immediately benefit those individuals who lack motivation and lag behind. Simply implementing this option provides them with assurance and individualized attention. Although not intended to provide business solutions, the act of speaking with CIC staff or volunteers may provide instant psychological benefits to discouraged entrepreneurs. Further supporting this option's immediacy, CIC could design and implement this assessment within the calendar year as its

timing and objective align with expressed volunteer interest from Wendy Brown, one of CIC's co-founders.

Secondary benefits The results of the Needs Assessment will inform changes to CIC's current portfolio of programs such that these offerings better equip the most under-resourced with the skills needed to grow stable, sustainable businesses and earn at or above the minimum wage. Most relevant to this analysis, these findings will likely impact CIC's criteria for mentor pairings and focus areas for networking assistance.

To meet the challenge of preparing CIC's most under-resourced entrepreneurs with the financial and business management skills they need to succeed, CIC's Needs Assessment will have the following objectives:

1. Probe why some individuals are systematically hard to reach. Are they not ready for support services, uncomfortable using the services offered, or disinterested for other reasons?
2. Inventory the most pressing needs of these entrepreneurs. What is the gap between "what is" and "what should be"? What skills or competencies do they lack?
3. Collect entrepreneurs' preferences for future communication. Could these individuals benefit from a more frequent and in-depth assessment on a less personnel-intensive platform?

DESIGN

CIC will adapt Witkin and Altschuld's (1995) three phase model for its Needs Assessment design, conducting Pre-Assessment, Assessment, and Post Assessment activities as described in Table 7 below.

Table 7: Needs Assessment Design

Phase	Activities	Considerations
Pre-Assessment	Identify project leadership and volunteer support	One CIC staff member to own and coordinate all activities.
	Reach consensus on Assessment goals	Suggested goal: identify gaps in skills needed to achieve business stability, business sustainability, and minimum wage. Appropriate measurement of these three objectives to be determined by CIC.
	Inventory data sources and types of information to know or observe	Potential data include personal demographic, business performance, and external environment.
	Define target group	Likely target for initial Assessment is most under-resourced workshop graduates self-reported in minimum wage bracket & non-respondents determined to be most in-need.
Assessment	Gather data in interviews	Each CIC staff member to conduct 3 one-hour in-person interview per day for 2 weeks. Implement ethnographic techniques and use Appreciative Inquiry format.
Post Assessment	Analyze data and define needs	Focus on similar gaps in behaviors or competencies.
	Identify attributes of needs	Causes, consequences, difficulty to correct, and criticality.
	Prioritize needs	Determine priority based on <ul style="list-style-type: none"> • magnitude (size of gap from "should be"), • causes and contributing factors, • cost of solutions, • risk of ignoring, and • impact on other parts of system.
	Select solution strategies and propose action plan	Construct two distinct sets of solutions, (1) modifications to current and (2) new programming.

Source: Adapted from United States Department of Education, 2001

The Assessment Phase In-Depth

The Assessment phase will reveal contributing behaviors and gaps in competencies which prevent the most under-resourced from acquiring necessary business and financial management skills. The Assessment will seek to understand these entrepreneurs' limiting behaviors, including low take up, attrition, poor follow through, and false beliefs or misconceptions (Darling et al., 2017). Further, the Assessment will examine three categories of competence: general entrepreneurial, social, and functional with the goal of identifying competence gaps (Nicklaus, 2011). Appendix V outlines detailed criteria within each competency category. These criteria provide CIC with a basis for selecting competencies to include in its Needs Assessment, however, all competencies listed in Appendix V may not be relevant to CIC's most under-resourced graduates.

CIC staff and volunteers will collect these data via in-person observation and interviews. Each interview, or Assessment, will follow a standard protocol to streamline data collection across all participants and facilitate more seamless identification of needs. Mirroring CIC's mentorship approach, the tone of interview questions will be in the spirit of Appreciative Inquiry (AI), an affirmational organizational change approach which focuses on energizing and motivating individuals around their strengths and a vision of the future (Whitney & Trosten-Bloom, 2003). Further, as most entrepreneurs will not explicitly know the skills they lack, the interviews will be ethnographic in nature. CIC staff will immerse themselves in entrepreneurs' environments to collect descriptive information which, through analysis, will help identify skill gaps. The following broad topic areas and sample questions provide instructive material for formulating a comprehensive, data-rich, and AI-based ethnographic Needs Assessment.

Table 8: Needs Assessment Topics & Questions

Topic	Sample Questions
Identifying gaps What is?	<ul style="list-style-type: none">• What energizes you?• What makes your business unique?• Describe what you most value about your business or how you have gotten to this point today.
Examining causes What could be?	<ul style="list-style-type: none">• Describe an example of a success.• What CIC entrepreneurs or local business owners do you admire?
Creating solutions What should be?	<ul style="list-style-type: none">• Think of a high point when you felt most accomplished or inspired, what made this moment possible?• If you could transform your business in any way what would you do?• When have you felt most supported by CIC? What was it like?
Planning for action What will be?	<ul style="list-style-type: none">• Describe three wishes for yourself or your business in the future.• Where do you see opportunities for CIC to partner with you to reach these goals?• Where do you see room for mentor support or networking advice?

Source: Adapted from Shuayb, n.d.; Darling et al., 2017

IMPLEMENTATION

As designed, CIC will implement this option as a pilot. CIC will then iterate and improve the Assessment's design based on lessons learned from field interviews, data analysis, and subsequent programming results. As the ultimate goal of the Assessment is to gather information which helps CIC tailor its programming more directly to the needs of the most under-resourced, the effectiveness the changes to

existing and/or creation of new programs provide critical feedback for fine-tuning of the Assessment's design. CIC must ensure a close link between the Assessment's results and its current practices by taking deliberate steps to translate Assessment insights into iterative and monitored programming changes.

In the short term, this Needs Assessment pilot will benefit a significant number of the most under-resourced, increasing their motivation and providing them with opportunities to build critical skills. In the long term, continuing a modified Assessment and developing support services which evolve based on its findings will allow CIC to empower all, but specifically its most under-resourced graduates with skills to grow stable and sustainable businesses and earn the minimum wage or more.

APPENDIX

I. COST ANALYSIS ASSUMPTIONS

BUSINESS DATA				
	2017 Annual Report	2016 Alumni Survey	2017 Alumni Survey (filtered)	2017 Alumni Survey (with 2016 fill ins)
CIC Entrepreneurs				
Operating Businesses (# of Entrepreneurs)	69	60	65	91
Developing Businesses (# of Entrepreneurs)	26	16	22	26
Total Entrepreneurs in Scope	95	76	87	117
Resource Level of Operating Entrepreneurs				
Minimum Wage to \$10/hour		12	11	15
\$10/hour - \$15/hour		14	18	24
\$15/hour - \$20/hour		5	7	8
More than \$20/hour		7	3	6
No response		22	26	38
Total Operating Entrepreneur Responses		38	39	53
Percent of total responses at minimum wage bracket		32%	28%	28%
Percent of total above minimum wage bracket		68%	72%	72%
CIC SALARY DATA				
Employee Annual Salary Calculation				
Leadership Positions ⁴	1			
Number of Employees ⁵	3			
Total Annual Salary Expense (rounded) ⁶	\$ 167,000.00			
Average Exec. Director Salary ⁷	67,000			
Remainder for 3 employee annual salaries	\$ 100,000.00			
Composite Hourly Salary Calculation				
Average employee annual salary (composite)	\$ 33,333.33			
Work weeks per year ⁸	50			
Work hours per year ⁹	2000			
Average hourly wage	\$ 16.67			

⁴ Stephen Davis, Exec. Director

⁵ Used historicals for payroll calculations (Keir, Waverly, Shannon); sourced from Community Investment Collaborative, 2017c

⁶ Actual \$166,561.60; sourced from Community Investment Collaborative, 2017c

⁷ Rounded data from Payscale.com research., actual \$66,406

⁸ Assumes 2 weeks vacation each year

⁹ Assumes 5 days/week at 8 hours/day

MENTOR PROGRAM DATA

Total Pairings 2017	2017 Mentor Report
Mentor Pairings	26
Mentors	22
Operating Business Mentor Pairings	2016 Alumni Survey ¹⁰
Minimum Wage to \$10/hour	9
\$10/hour - \$15/hour	8
\$15/hour - \$20/hour	3
More than \$20/hour	3
No response	9
Total Operating Businesses Paired	32
Total Developing Businesses Paired	9
Total Mentor Pairings 2016	41

¹⁰ Field not recorded in 2017 survey

II. NEEDS ASSESSMENT COST ANALYSIS

COST					
Personnel Breakdown, Cost by Phase	Time required (days)	# FTEs	Hours required	Average Hourly Wage	Cost
Design and planning	2	2	16	\$ 16.67	\$ 533.33
Training & internal alignment	1	2	8	\$ 16.67	\$ 266.67
Data collection ¹¹	10	1.5	80	\$ 16.67	\$ 2,000.00
Data processing	3	1	24	\$ 16.67	\$ 400.00
Data analysis	3	1	24	\$ 16.67	\$ 400.00
Total	19		152		\$ 3,600.00

Cost Roll-Up	
Total Personnel Cost	\$ 3,600.00
Materials Cost	\$ 200.00
Transport Cost	\$ 1,000.00
Total Cost	\$ 4,800.00

ENTREPRENEURS SERVED			
Operating Beneficiaries		2017	2016
A	Total operating businesses	91	60
B	Respondents in minimum wage bracket	15	12
C	No response	38	22
D	Percent of respondents in min wage bracket	28%	32%
E	Non-respondent minimum wage bracket (C x D)	11	7
F	Total operating in min wage bracket for assessment (A + E)	26	19
Developing Beneficiaries			
G	Total developing businesses	26	16
H	Minimum wage bracket (G x D)	7	5
I	Total developing in min wage bracket for assessment (G + H)	33	21
Total Most Under-Resourced Beneficiaries (F + I)		59	40
Average Cost Effectiveness Ratio		\$ 81.20	\$ 120.00

¹¹ Assumes each individual conducts 3 assessments per day, leverages Wendy Brown or other volunteer assessors

III. SENSITIVITY TRAINING COST ANALYSIS

COST					
Personnel Breakdown, Cost by Phase	Time required (days)	FTE	Hours required	Average Hourly Wage	Cost
Design: Best Practices Research	2	1	16	\$ 16.67	\$ 266.67
Design: Meeting with Experts (Darden Leadership Faculty) ¹²	0.5	1	4	\$ 16.67	\$ 66.67
Design: Curriculum Assembly	2	1	16	\$ 16.67	\$ 266.67
Delivery: Networking Lunch/Orientation	0.25	1	2	\$ 16.67	\$ 33.33
Total	4.75		38		\$ 633.33

Cost Roll-Up	
Total Personnel Cost	\$ 633.33
Materials Cost	\$ 200.00
Travel Cost	\$ -
Total Cost	\$ 833.33

ENTREPRENEURS SERVED			
	Responsiveness to Training Scenarios	2016	2017
A	Pairings	41	26
	Mentor uptake & mentee responsiveness range ¹³		
B	completely responsive	100%	
C	majority responsive	75%	
D	somewhat responsive	50%	

Total Beneficiaries by scenario	2016	2017
completely responsive (A x B)	41	26
majority responsive (A x C)	31	20
somewhat responsive (A x D)	21	13

Cost Effectiveness Ratio by Scenario	2016	2017
completely responsive	\$ 15.45	\$ 24.36
majority responsive	\$ 20.60	\$ 32.48
somewhat responsive	\$ 30.89	\$ 48.72

Average Cost Effectiveness Ratio (min max range)	\$ 15.45	\$ 48.72
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¹² Four one-hour meetings with faculty

¹³ Anecdotal evidence from CIC; Cohen et al., 1999

IV. PLAYBOOK COST ANALYSIS

COST					
Personnel Breakdown, Cost by Phase	Days required	FTE	Hours required	Average Hourly Wage	Cost
Design: Where to start (partner opportunities)	0.5	1	4	\$ 16.67	\$ 66.67
Design: Defining value proposition	1	1	8	\$ 16.67	\$133.33
Design: Networking "rules of thumb"	0.5	1	4	\$ 16.67	\$ 66.67
Distribution: Printing	0.25	1	2	\$ 16.67	\$ 33.33
Distribution: Mailing	1	1	8	\$ 16.67	\$133.33
Total	3.25		26		\$433.33
Materials Breakdown					
Total copies of playbook	100				
Cost to print 1 copy including bulk discount ¹⁴	\$5.90				
Cost of large envelop postage stamp ¹⁵	\$0.98				
Cost Roll-Up					
Total Personnel Cost	\$ 433.33				
Print Cost	\$ 590.00				
Stamps Cost (\$0.98 per large envelope stamp x 100)	\$ 98.00				
A Total Cost	\$ 1,121.33				

¹⁴ Estimate from FedEx for 10 page document in on standard paper color (bulk discount of \$1 off / copy for 50 copies or above); Fedex Print, 2018

¹⁵ Sourced from United States Postal Service, 2017

ENTREPRENEURS SERVED				
	2016 Survey	2017 Alumni Survey (filtered)	2017 Alumni Survey (with 2016 fill ins)	2017 Annual Report
Total Businesses				
B Total operating and developing Businesses	76	87	117	95
Assumptions				
C Literacy rate ¹⁶	100%			
D Percent likely to read direct mailing ¹⁷	42%			
E Percent likely to change behavior ¹⁸	25%			
	2016 Survey	2017 Alumni Survey (filtered)	2017 Alumni Survey (with 2016 fill ins)	2017 Annual Report
F Total Beneficiaries (B x C x D x E)	8	9	12	10
Cost effectiveness by scenario (A / F)	\$ 140.52	\$ 122.75	\$ 91.28	\$ 112.41
Average Cost Effectiveness Ratio (min max range)	\$ 91.28	\$ 140.52		

¹⁶ Estimate reasonable given all entrepreneurs completed training program with written curriculum

¹⁷ Estimate sourced from Mansfield, 2017

¹⁸ Assumes CIC uses McGuire persuasion techniques (Bull et al., 2001), Grimshaw et al., 2001 find very small or no effect for health outcomes

V. COMPETENCY CRITERIA

Selected from Nicklaus, 2011

General Entrepreneurial

1. Conceptual and analytical
2. Innovation
3. Enforcement
4. Flexibility
5. Self-knowledge and confidence
6. Learning ability
7. Communication

Social Entrepreneurial

1. Teamwork
2. Leadership
3. Networking

Functional Entrepreneurial

1. Commercial management (marketing, market analysis, sales)
2. Technology management (internal technology development, information security, and technology utilization)
3. Financial management (strategic financial, finance sourcing, liquidity and cash flow)
4. Strategic management (opportunity development, future orientation, competitive positioning, and contextual awareness)
5. Organizational management (planning and controlling)

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