



Carolina
Small Business
DEVELOPMENT FUND



PROGRAM EVALUATION REPORT

Innovator's Journey Program: Outcome Evaluation Assessment

Program Supported By:

Wells Fargo Diverse Community Capital
Association for Enterprise Opportunity Innovation Labs

ISSUED IN AUGUST 2020



About this Report

This product has been created as part of Carolina Small Business Development Fund's (CSBDF) commitment to provide transparent and accountable evaluations of its programs and operations. CSBDF's organizational structure gives research staff independence in all work related to program evaluation and data analysis.

The findings presented in this report have not been edited or changed in any way by CSBDF's management, regardless of any negative or positive implications. The program evaluated by this report was given the opportunity to respond to the enclosed findings. That response, if any, is included as an attachment.

All data used to conduct this program evaluation are available to the public upon request for non-commercial use. To ensure the confidentiality of clients, data provided are anonymized. Requests can be made to the email address below.

To learn more, visit carolinasmallbusiness.org/impact/program-evaluation/.

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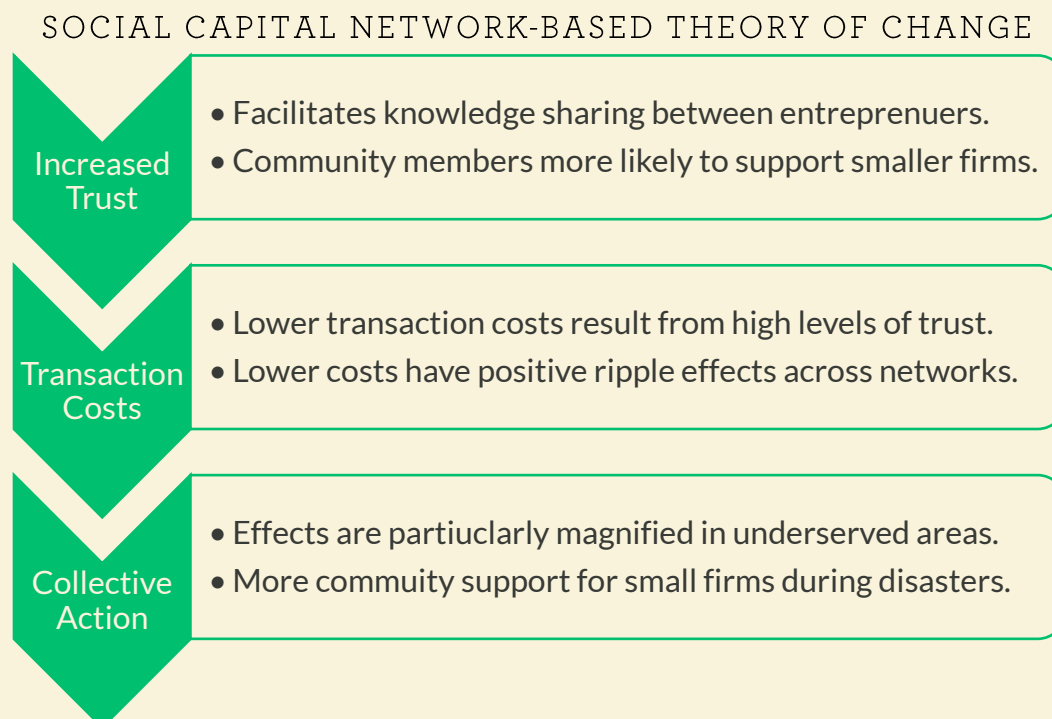
Introduction and Overview

Carolina Small Business Development Fund (CSBDF) has recently completed a multi-year technical assistance program called the Innovator’s Journey (INJ). The INJ program was used as a central part of CSBDF’s network of educational partnerships. The intervention included 12 hours of instruction across 6 weeks. Funding for program operations was provided by Wells Fargo under the Diverse Community Capital initiative.

As a community economic development organization, CSBDF seeks to engage in community programs that improve the lives of the constituencies we serve in ways that are accountable to funders. It is in that spirit that we voluntarily conducted an outcome evaluation of this program. This report assesses whether the INJ intervention met its **primary outcome objective** of promoting entrepreneurship and innovation through small business social capital development.¹

Theoretical Basis for Program

INJ is a proprietary technical assistance curriculum that is designed to bolster small business network ecosystems.² Our review of the scholarly literature does not find any reference to this model. However, its precepts appear to be based on well-accepted network theories on the importance of social capital to small businesses.³ The mechanisms through which social capital promotes small business trust networks are, admittedly, complex.⁴ Though not cited by the creators of the INJ program, we believe the research suggests three causal mechanisms of action:⁵





Though the promotion of social capital has positive economic implications at all levels, there is a large amount of evidence that it is *particularly effective* for small firm networks.⁶ For example, some research shows high levels of social capital boost the ability of entrepreneurs to access capital and other resources.⁷ Small business owners who engage in social capital generating activities are both (1) more innovative and (2) more likely to be successful than those who do not engage in such activities.⁸

Finally, there are strong links between low social capital and economic distress in disadvantaged neighborhoods.⁹ Without strong networks, such communities often face negative outcomes including higher income inequality, net migration outflows, fewer social facilities, lower health standards, and even a degraded physical environment.¹⁰ As an intervention that targeted disadvantaged community members through social capital networks, the INJ intervention is based on a robust body of peer-reviewed literature.

Methodology and Scope

The main data to evaluate INJ's outcomes comes from surveys. Each program participant was surveyed at three points in time:

- Pre-Intervention, Time 0 (T0): After enrollment, but before beginning coursework.
- Post-Intervention, Time 1 (T1): Within 1 week of program completion.
- Post-Intervention, Time 2 (T2): Occurring 90 days after program completion.

Response rates varied greatly from T0 (98%, n = 62) to T1 (19%, n = 13) to T2 (35% n = 22). Collection of post-intervention survey data is always a challenge for program evaluation. Once participants have completed a program, they have little incentive to complete follow-up surveys. Innovator's Journey staff attempted to improve follow up using survey incentives. Program graduates were invited to complete the T2 follow up survey 90 days after graduation and, upon completion, were sent a \$10 gift card. Social science research has long validated that the use of nominal monetary survey incentives can help increase response rates.¹¹

Traditionally the major concern with survey data, especially when there are low response rates, is systemic non-response bias.¹² Non-response bias occurs when there is a pattern in the types of program participants who do not respond to surveys. Though newer scholarship has argued low response rates are not *de facto* suggestive of this bias, it is important to test for it with available program data. We estimated three binomial logistic regression models for T0, T1, and T2 where the dependent variable was whether the participant responded to the survey (= 1) or not (= 0).¹³ In each model, the program participant's demographic characteristics were included as the independent variables: gender, race, ethnicity, veteran status, and disability status. No demographic variable was



a statistically significant predictor ($p < 0.05$) on response rates. This suggests that while the T1 and T2 datasets have a low response rate, non-response bias is not a threat to data validity.

The evaluation proceeds as follows. First, we examine the data across all 3 time periods (T0, T1, and T2). Ideally, respondents would have been asked the same questions at all 3 points in time. However, program staff worked with the Association for Enterprise Opportunity on the T2 survey, which resulted in substantial changes to the questionnaire. Thus any examination of survey data at T0, T1, and T2 is confined mostly to descriptive statistics and qualitative analysis. Second, we use a series of difference of means testing to compare changes in outcome metrics across the two time periods which used the same question set (T0 and T1).

Findings and Analysis

DESCRIPTIVE STATISTICS. Data from the T2 survey, which occurred approximately 3 months after program completion, can be summarized into three primary areas:

1. Projections of Positive Outcomes: Participants were asked to indicate how much their small business revenues had changed since starting the program. Mean reported revenues changes were +\$7,027.60. The lowest revenue change indicated was - \$4,000.00, the highest was +\$40,000.00, and the standard deviation was \$13,316.11. Answers to this question displayed an extremely high degree of variance.

The overwhelming bulk of participants reported anticipating positive business growth outcomes. Over the next year respondents reported they would be certain or likely to grow in revenues (100%), add employees (100%), take actions to improve their credit (94%), and participate in other small business technical assistance programs (89%). Most respondents (63%) also indicated they would need a business loan during the same time frame.

2. Leverage of Small Business Networks: Participants rated agreement with several statements, designed to reflect willingness to access resources through network-based behaviors. The majority agreed with each statement, indicating a high degree of self-confidence in these areas. The lowest area of confidence was in the participant's ability to get a loan or line of credit if needed.



PERCEPTIONS OF BUSINESS MANAGEMENT SKILL

T2 Outcome Metric: Leverage of Networks for Resources	Percent Agreeing	Percent Disagreeing
Knows Where to Go For Small Business Help	78%	22%
Has Access to All Banking Services Needed	73%	27%
Comfortable Pitching Business to Investors	72%	28%
Could Get a Bank Loan/Line of Credit if Needed	59%	41%

3. Levels of Trust and Changes in Trust Levels: Finally, participants were asked about their trust levels across a variety of community institutions and entities. They were also asked whether trust levels in each institution/entity had improved or declined due to the program. Although it is hard to assess any changes as there was no T0 or T1 version of this question, it appears as though participants had high levels of trust in small business support organizations and other local businesses. But perplexingly, they were relatively less likely to trust non-profit lenders (57%) over community banks and credit unions (74%).

PERCEPTIONS OF TRUST IN INSTITUTIONS AND ENTITIES

T2 Outcome Metric Levels of Trust & Changes in Trust Levels	Has Trust in Entity/Institution ¹	Intervention Improved Trust Perception ²
Small Business Support Organizations	79%	70%
Community Banks and Credit Unions	74%	50%
Friends and Family Members	68%	54%
Non-Profit Lenders	57%	54%
Government Agencies	57%	50%
Other Local Businesses	57%	62%
Neighbors	57%	50%
Large Banks	47%	38%

¹ Operationalized as the percent of respondents indicating they agreed or strongly agreed that the listed entity/institution would treat them fairly and provide them with the right information if asked for small business assistance.

² Operationalized as the percent of respondents indicating a significant or moderate improvement in their level of trust in the listed entity/institution due to the program intervention.



QUALITATIVE ANALYSIS. Participants were asked to express their goals at the start of the program (T0). At program graduation (T1), participants were shown their stated goals and asked to indicate if they felt they had met their goals. Almost all (89%) of respondents indicated that they had met their stated goals. At T1 and T2, participants were also invited to share any open-ended comments they wanted about the program. Each comment was analyzed and coded by 3 independent reviewers to determine the underlying sentiment (positive, negative, or neutral).³ Intercoder reliability of the comments was very high at 93%. Though number of total comments received was low, they suggest a generally positive perception of the INJ program itself:

RESPONDENT SENTIMENT IN OPEN-ENDED COMMENTS

Sentiment Analysis Period	Comments	Positive	Neutral	Negative
Program Graduation (T1)	8	63%	25%	13%
90 Days After Graduation (T2)	8	88%	12%	0%

QUANTITATIVE ANALYSIS. Because the T0 and T1 surveys asked the same questions, it is possible to determine whether respondent changes in answers are statistically significant. Respondents were asked to answer questions about three primary outcome areas:

1. Measures of Social Capital: If the program intervention is successful, we would expect the level of agreement with statements that represent a positive relationship toward social capital constructs would increase. The only significant change was that the intervention appeared to create a slight *decline* in how interested participants were in connecting with other entrepreneurs (-8%, $p < 0.01$).

CHANGES IN MEASURES OF SOCIAL CAPITAL

Percent Agreeing With Statement	Time 0	Time 1	Change ⁴
Interested in Connecting with Other Entrepreneurs	97%	89%	-8%
Feels Community Wants Small Firms to Succeed	78%	88%	NS
Believes Small Businesses Should Work Together	49%	44%	NS
Knows Where to Go For Small Business Help	57%	67%	NS

³ Reviewers are composed of CSBDF volunteers and interns who have expressed an interest in research and have received a brief training on how to code sentiment.

⁴ The test used to detect changes in measures of social capital was a difference of proportions/z-score. Changes that were not significant are labeled as “NS.”



2. **Awareness of Resources:** The theory of change behind INJ is that network resources are vital for entrepreneurship. The program seeks to increase awareness and access to networks, so we should expect increases in knowledge about inter-sectoral resources available to small business owners. Though changes in awareness went up across the board, only participant knowledge in banks/credit unions increased in a statistically significant manner (from 10% at T0 to 44% at T1, $p < 0.01$).

CHANGES IN AWARENESS OF SMALL BUSINESS RESOURCES

Percent Stating Very/Extremely Knowledgeable	Time 0	Time 1	Change ⁵
Chamber of Commerce	23%	33%	NS
Community Banks and Credit Unions	10%	44%	+33%
Community Colleges	26%	55%	NS
Small Business Development Centers	20%	44%	NS
Nonprofit Lenders	10%	33%	NS

3. **Perceptions of Business Growth:** Ultimately, the INJ program should help participants to grow their small business. Participants were asked to indicate their expected changes revenues, expected employment hiring, needs for capital, and confidence levels in starting a business. The INJ program resulted in an increase across each of these metrics, but no change was statistically significant.

CHANGES IN PERCEPTION OF BUSINESS GROWTH

Metrics of Anticipated Business Growth	Time 0	Time 1	Change ⁶
Projected Revenues Next 12 Months	\$193,413	\$246,923	NS
Projected Job Creation (FTEs) Next 12 Months	3.44	10.82	NS
Percent Stating a Need for Capital Access	51%	55%	NS
Mean Confidence Score (1 to 10 Range) ⁷	8.78	9.00	NS

⁵ The test used to detect change in awareness of resources was a difference of proportions/z-score. Changes that were not significant are labeled as “NS.”

⁶ A difference of means/t-test was utilized for changes in respondent expectations for their business growth, with an unequal variance test used for projected job creation due to multiple extreme outliers. Changes that were not significant are labeled as “NS.”

⁷ Mean score to a question involving how confidence the participant was in their ability to start a business. Possible ranges were from 1 to 10, with higher scores indicating more confidence.



Conclusions and Recommendations

Even in the best case, evaluations of community economic development interventions are challenging.¹⁴ The nature of programmatic interventions of this type means that outcome metrics are hard to operationalize and subject to a great deal of endogeneity.¹⁵ The cause and effect pattern between an intervention like the INJ program and positive socioeconomic outcomes is difficult to measure and trace. In this case an evaluation of outcomes is particularly challenging because the T2 survey instrument was changed, so it is only possible to assess statistically significant changes at T0 and T1.

Based on the descriptive statistics (T0/T1/T2), qualitative data (T0/T1/T2), and difference of means testing (T0/T1), we make the following findings:

1. Theory of Change is Evidence-Based: Though the INJ website, white papers, and program materials do not reference sources, our assessment is that its mechanisms of action are based in the well-validated social capital literature.
2. High Levels of Trust in Institutions: Though there is no base line to compare the data to, the T2 survey shows that participants tended to have high levels of trust in community institutions. This is a positive outcome, and participants indicated their sentiment changes were at least partially due to the INJ program.
3. Positive Sentiments Towards Program: Qualitative comment analysis shows participants had positive sentiments toward the INJ coursework and program staff. Though the number of comments received was low, this is a positive outcome and suggests participants enjoyed the content.
4. Insufficient Evidence to Determine Outcomes:⁸ Comparing the T0 and T1 survey data shows almost all changes in metrics were not statistically significant. The only significant change directly related to the INJ program's theory of change was program participants being *less likely* to want to interact with other small business owners.

The goal of CSBDF's program evaluation work is to improve the effectiveness and efficiency of programs. Based on our assessment of the data, we recommend that CSBDF management implement the following changes to improve the operations of programs that rely on a similar mechanisms of action:

1. Use Similar Questions for Longitudinal Surveys: To comprehensively assess whether changes in outcomes happen over time, survey assessments must remain substantially similar. Surveys of program participants should ask about the same constructs in the same way at each time period.

⁸ Notably, this finding does not mean that the program had no positive effect. But it is not possible to tell either way given the data.



2. Encourage Funders to Support Evaluation Costs: Response rates at T1 and T2 were very low. While we did not detect any non-response bias, these low rates can pose a threat to survey data validity in many ways. Increasing survey response rates using nominal financial incentives is recommended. Though this comes with a cost, we believe funders will be more likely to support such efforts if they are educated on CSBDF's desire to provide meaningful evaluations.
3. Emphasize Need for Data Follow-Up to Program Staff: Intentional efforts must be made by program staff to collect data from program participants. We recommend adherence to data collection standards become a formal component of program staff's annual performance evaluations.
4. Utilize Alternative Programs for Technical Assistance: Though the INJ model appears to be based on a well-established theory of change, we found little evidence of its use in other contexts. Because the data were also not able to clearly establish the effectiveness of the intervention, we recommend CSBDF consider different programs when performing this type of technical assistance in the future.

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CC: Stephanie Swepson-Twitty, Chair of the Board of Directors
W.A. Tony Hayes, Vice-Chair of the Board of Directors

August 10, 2020

Dear Mr. Dick,

This letter serves as the department response regarding CSBDF's outcome evaluation of the Innovator's Journey (INJ) program. CSBDF maintains its thought leadership position amongst CDFIs in part because we, as an organization, are committed to a cycle of continuous improvement. We appreciated the opportunity to ensure our efforts are reflective of the best practices for small business technical assistance.

Major Findings Summary

Though the evaluation made many findings, the major conclusions were that:

1. The INJ program has an evidence-based theory of change, but there are limited objective assessments of its effectiveness.
2. In general, the data show that program participants increased their trust levels in community institutions and were more likely to understand the importance of small business networks.
3. But due to low response rates and inconsistent data collection practices, it is difficult to determine whether outcome metrics changed in a material (statistically significant) manner.

Additionally, the evaluation makes several recommendations about how CSBDF should improve technical assistance interventions of this type. Those suggestions include more

consistent use of data collection procedures, emphasizing the importance of data collection to staff, and considering alternative programs in the future.

Business Solutions Response

I have reviewed the document and concur with both the findings and recommendations. The Business Solutions division believes that the INJ program's intended goals were consistent with CSBDF's mission to promote sustainable community economic development. Its use of social capital networks is innovative, but the data show a need to explore other more well-validated models in the future. We also agree that consistent and timely follow-through on data collection is imperative to show the impact of our work. Moving forward, Business Solutions staff working on grant programs will have an assessment of their compliance to CSBDF's data collection standards included in their personnel evaluations. In the next 3 months, I will work closely with research & evaluation to ensure these recommendations are implemented.

Sincerely,

Lori Diaz
VP, Business Solutions
Carolina Small Business Development Fund