



# Exploratory Study of the Perceptions of Biasness, Inclusivity, and Team Dynamics in Entrepreneurship Education Training

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# **Exploratory Study of the Perceptions of Biasness and Inclusivity in Entrepreneurship Education & Training**

## **Abstract**

Broadening participation in entrepreneurship is an important topic and critical challenge that continues to gain attention and intervention programs within the STEM entrepreneurial ecosystem. However, the challenges of people of color in STEM entrepreneurship are amplified in technology intensive and the high-growth space of STEM innovation. Researchers, practitioners, academic scholars, and policy-makers have focused on training entrepreneurs of color in an inclusive way that considers both similarities and the uniqueness of the individuals that may be interested in a career as an entrepreneur. The National Science Foundation I-Corps is one such training program. Established in 2012, the I-Corps program brings NSF-funded researchers and industry expert together in an entrepreneurship and innovation training course. The expectation is that the training will lead to a growth in the translation of “deep tech” and in the creation of entrepreneurial ventures. The I-Corps program consists of both regional training as well as a national training program. Participation in the national program requires the formation of a team that consists of a Technical Lead, Entrepreneurial Lead, and a Business Mentor. Under-represented Groups (URGs) and women participation in I-Corps has been relatively low since inception. In this paper, we use survey data to explore the relationship amongst the differing roles and their perception as a participant in the national I-Corps training program. We consider demographics and gender identity to explore the experiences of the National I-Corps program participants. Additionally, we explore the impact of the engagement of the I-Corps staff with the participants and the perception of inclusivity and biasness within the training program.

## **1.0 Introduction**

Entrepreneurs and their ventures are critical to the economy and to the long-run economic growth and productivity of the nation (Gonul, 2018; Bates, 2018; Diez, 2014). It is important that all members of our society have supportive opportunities to establish new ventures and deliver value to stakeholders. Inclusion and support of women and URG entrepreneurship is important to economic growth and competitiveness of the U.S. Bates et al. (2018) finds that nearly 40% of all new firms created nationwide in 2015 were minority-owned (includes women-owners) and around 30% are from under-represented minority populations. Figure 1 shows the distribution of new business ownership in the U.S. in 2015.

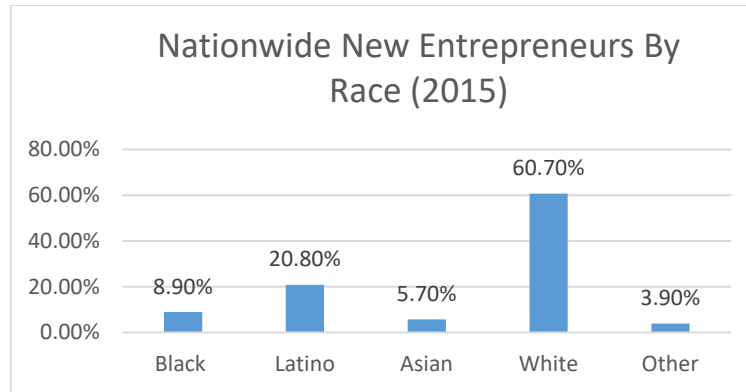


Figure 1: Entrepreneurship Population Survey Data (Fairlie et al. 2016)

Although we see an increase in raw numbers, scrutiny of the data paints a more complicated picture. Approximately 11.4% of the minority-owned businesses had paid employees. Furthermore, nearly 45% of minority-owned firms have less than 20 employees. If we consider those firms that are in high-patenting industries or perhaps high-tech businesses this percentage falls to 13% with Black and Latino businesses representing only a fraction, less than 4% (Bagley, 2013). Additionally, a very interesting observation from the data shows a nearly 12% gap between entrepreneurial ventures between Black and Latino groups. Understanding the potential factors that may be contributing to that difference is also important to this study to identify and support the different needs of URG entrepreneurs.

Broadening participation in entrepreneurship is an important topic and critical challenge that continues to gain attention and interventions within the STEM entrepreneurial ecosystem. However, the challenges of people of color in STEM entrepreneurship (Jackson et al., 2021) are amplified in technology intensive and high-growth space of STEM innovation. Researchers, practitioners, academic scholars, and policy-makers have focused on training entrepreneurs of color in an inclusive way that considers both similarities and the uniqueness of the individuals that may be interested in a career as an entrepreneur. The National Science Foundation I-Corps is one such training program. Established in 2012, the I-Corps program brings NSF-funded researchers and industry expert together in an entrepreneurship and innovation training course. The mission is that the training will lead to a growth in the translation of “deep tech” and the creation of entrepreneurial ventures.

Most studies of women-owned and/or minority-owned firms have considered the firms in aggregate using data collection strategies and methods based on several demographic traits: age, education, family size, multiple types of businesses, etc. This has been effective at shedding light on lack of real economic growth of minority-owned and women-owned firms. Also, research studies have identified and called-out some common barriers to successful minority and women business ownership – Access to

Financing, Access to Markets, Access to Education, Social Networks, and Socio-Cultural Challenges (Gonul, 2018; Bates, 2018; Brewaji et al., 2015; Greenhalgh and Lowry, 2011; Heilman and Chen, 2003). Knowing these factors is important so that we can propose and introduce counter-measures to deconstruct structural and institutional barrier and open channels of access. What seems to be missing is an understanding of the role of the entrepreneurial training and support program on the participants while participating in the training efforts. In this research study, we are focusing on understanding the perception of biasness, inclusivity, and program dynamic of participant in the National I-Corps program. This research has focused on individuals that participated in the National I-Corps program, 2017 – 2021.

More specifically, the focus of this study is to address this main research question.

**RQ1:** What are the experiences of racially marginalized and female participants in the I-Corps™ program?

## **2.0 Literature Review**

Despite a growing attraction to STEM entrepreneurship, URGs and women remain overlooked when it comes to accessing critical assets to growing their STEM-based start-ups. This accessibility issue is often assumed to be to a lack of professional development and training for the pathways toward entrepreneurship and the lack of STEM entrepreneurs to serve as models and role models (Gonul, 2018). However, there are structural barriers and impediments that create complex and challenging pathways for URG STEM entrepreneurship (Bates, 2011). Most relevant research on the entrepreneurship trajectories of STEMers has either: (a) provided statistics on racially or gender disparate entrepreneurship outcomes with a host of deficit-based explanations (e.g., lack of educational background to successfully engage in entrepreneurship practices), or (b) suggested that lack of high-growth is a result of the type of business ventures started by URG entrepreneurs and women (e.g., targeted or focused primarily on customer groups with limited high-growth potential) (Gonul, 2018). This limits our understanding of differences in STEM entrepreneurship opportunities and outcomes across URG groups and our ability to increase the opportunities and reduce negative outcomes (Greenhalgh & Lowry, 2011; Heilman & Chen, 2003; Dayanim, 2011). Additionally, we have insufficient understanding on how URG STEM businesses diverge from their White and Asian counterparts.

The development and translation of “deep tech” is vital to the technological advancement and the global competitiveness of the U.S. However, the pathway to successful translation is complex and has lots of uncertainty. NSF sought to address this issue with the creation of the NSF I-Corps program (Nnakwe, 2018). The basis of the I-Corps program consists of teams of three members engaging in active learning focused

on entrepreneurial training. The team members consists of an Entrepreneurial Lead (typically a graduate student or post-doctoral researcher), Technical Lead (typically university faculty), and the Industry Mentor (mentor with industry experience). Since NSF I-Corps inception in 2012, the program has trained 5800 unique individuals. Of the participants, 19% have identified as female and 25% have identified as a member of an under-represented group – 1) women, 2) race as Black or African American, American Indian, Alaska Native, and/or Native Hawaiian or Other Pacific Islander), 3) Hispanic origin, and 4) disability status of yes (NSF I-Corps Report, 2021).

Forces such as rapid changes in technology, changing racial and ethnic demographics, national security, and globalization have fueled the need to increase and diversify the entrepreneur landscape. STEM-enterprises provide these high-growth opportunities. The participants in training programs such as I-Corps are a targeted cohort of technologist, inventors, researchers, and scientist that can benefit from such training programs. To remain globally competitive, we must attract and retain a diverse pool of STEM entrepreneurs and encourage and support entrepreneurial engagement and pursuit.

To attract and retain underrepresented and underrepresented minority participants, it is critical to understand the experience of past participants in the I-Corps training program. It is important to recognize and to call-out any potential hindrances due to unconscious biases that are embedded into the program unintentionally. When individuals understand the problem of unconscious bias, they are more likely to take steps to address it (Pettigrew & Tropp, 2006). Additionally, we seek to explore if there are any potential challenges to collaboration due to the power dynamics of the team structure that may be an impediment to engagement of women and under-represented minoritized populations' engagement in the training program (Lotia, 2015).

The construct of the I-Corps team is pivotal to the program structure and curriculum. The perception of similarity, diversity, and complementarity amongst the team member may have impact on the experiences of the participants of the I-Corps program.

Previous research has suggested that similarity is one condition that enables team members to identify with another person if she or he feels similar to that person (Bakker, Westman, & Schaufeli, 2007). The similarity may refer to specific characteristics such as gender, race, and ethnicity for example (Torrente, Salanova, Llorens, 2013). The similarity may lead to more positive and meaningful interaction on the team that can likely increase team engagement and cohesiveness (Mehra, et al. 1998).

Research that has focused on team diversity and outcomes often times considers both racial-demographic diversity and cognitive diversity conjointly (Horwitz et al., 2007). Some researchers have the argued that heterogeneity has an adverse impact on team outcomes (Milliken & Martins, 1996). Other have argued that team diversity has a positive

impact on performance outcomes because of the cognitive attributes and contributions from the diverse team (Hambrick, Cho, & Chen, 1996).

In thinking about the team structure along with team member similarity and team diversity, complementarity is observed to be an influencing factor in team performance outcomes as well. Organizations with a diversity of knowledge, experience, and skills among the team may benefit from complementarities that initiate new insights and developments (Dosi, 1982; Quintana-Garcia & Benavides-Velasco, 2008). Complementarity refers to the diverse skillsets that individuals bring to the team; how the team members can attached the skillsets to needed roles; and how other team members value the diverse skillsets of their team members (Lakhmani et al., 2022). Additionally, complementarity refers to the perception of how these differences in skillsets benefits the team as a whole (Piasentin & Chapman, 2007).

Furthermore, the I-Corps program instructors and facilitators may also influence the experiences of the participants. The findings of this research have the potential to affect the way that STEM entrepreneurial training within I-Corps is structured, developed, and delivered.

### **3.0 Methodology**

At the start of this research, the NSF I-Corps ecosystem consisted of 9 I-Corps Nodes – (Bay Area Node; DC/MD/VA Node; South Node, Los Angeles Node; Midwest Node; New England Node; New York City Node; Southwest Node, and UNY Node). Each of these nodes provide local and regional I-Corps training. These regional and local programs serves as a pipeline for teams that can submit a proposal to participate in the National I-Corps training. If the proposal is funded, a team of three consisting of an Entrepreneurial Lead (EL), Technical Lead (TL), and a Business Mentor (IM) are awarded \$50,000 to enroll in a six- to ten-week entrepreneurial curriculum to explore commercialization opportunities for their NSF-Funded research (Nnakwe, 2018). This research only considers individuals and/or teams that participated in this National I-Corps training program over the time 2017 - 2021. The National training program includes I-Corps teams that are from across the U.S. This is important to identify any confounding or correlation that is related to more geographical or regional behaviors or differences. For example, more robust investor and commercialization community in the Bay Area compared to the Lower Midwest.

To collect data, we contacted each of the nodes for a list of the National I-Corps program participants. This list of participants included Entrepreneurial Leads, Technical Leads, and Business Mentors. We received contact information for 513 participants of the National I-Corps Program. After identifying duplicates and any entries with incomplete data, the final list of participants consisted of 484 individuals representing 161 teams that participated in the National I-Corps Program.

The survey is the primary instrument that we used to collect data from the participants for this manuscript. Within the survey, we collected demographics data, team dynamics data, perception data, and opinions regarding the training program experiences. The key themes addressed in the questions were as follows:

### **Personal and Team Focused**

- Motivation to participate in the I-Corps Training
- Similarity and Difference among the team member along the dimensions of – age, gender, race, ethnicity, personality, academic training, work experiences, professional interests, and interpersonal style.
- Complementarity within the team along the dimensions of - age, gender, race, ethnicity, personality, academic training, work experiences, professional interests, and interpersonal style.
- Diversity within the team along the dimensions of - age, gender, race, ethnicity, personality, academic training, work experiences, professional interests, and interpersonal style. In regards to diversity, the survey measure factors of racial-demographic diversity (age, gender, race, and ethnicity) as well as cognitive diversity (academic training, personality, work experience, professional interests, and interpersonal style).
- Business and Commercialization status of the research.
- Feelings and Perceptions while attending the NSF I-Corps workshops.
- Comfortability when interacting with people that may be different along the dimensions of – observable disability, race/ethnicity, country of birth, gender, native language.

### **NSF I-Corps Experiential Education**

- Interaction with NSF I-Corps Program Facilitator.
- Description of the NSF I-Corps Training Activities.
- Perceived impact of NSF I-Corps workshops.
- Likelihood of connecting with NSF I-Corps Program Facilitators after training

The research question introduced in section 1.0 is addressed by considering demographic stratification and comparing responses. Additionally, we analyzed the data to identify any factors that are influential as it may relate to gender and being a member of an under-represented group as compared to the general population. We also analyzed the direct statement or a single word from participants describing their overall experience in the National I-Corps training program.

In this study, we have classified African-American/Black, Hispanic/Latinx, and Native American as minoritized populations (URM). We are planning to include Asian populations' data in a subsequent study.

#### 4.0 Results

There were one-hundred responses to the survey representing a 20.6% response rate of the targeted 484 National I-Corps program participants. Additionally, there were at least one respondent from sixty-three unique teams representing a 39.1% response rate of the targeted 161 teams that participated in the National program. Twenty-nine of the sixty-three teams had at least two respondents. Table 1 shows the demographic breakdown for the survey respondents (N=100). Table 2 shows the gender breakdown for the survey respondents (N=100).

*Table 1: Respondent Demographics*

<b>Group</b>	<b>N</b>	<b>Percentage</b>
Asian	19	19
Black or African-American	6	6.0
Hispanic/Latinx	9	11.0
Native American	3	3.0
White	63	63.0

*Table 2: Respondent Gender*

<b>Group</b>	<b>N</b>	<b>Percentage</b>
Female	26	26.0
Male	72	72.0
Non-Binary	1	1.0
No Response	1	1.0

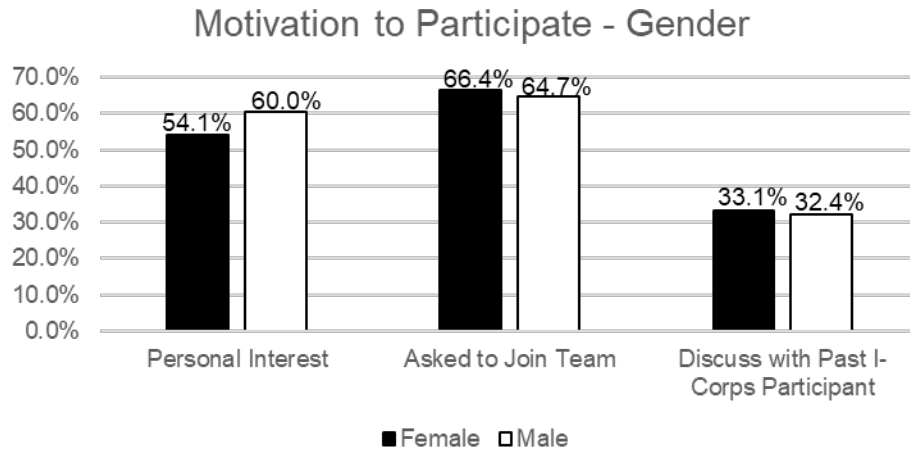
In the analysis, we have grouped Black or African American; Hispanic/Latinx; and Native American within the URG sub-group. This is for comparison when analyzing along racial/ethnicity demographics.

In the following, we discuss the various results related to key questions around experiences within the National program.

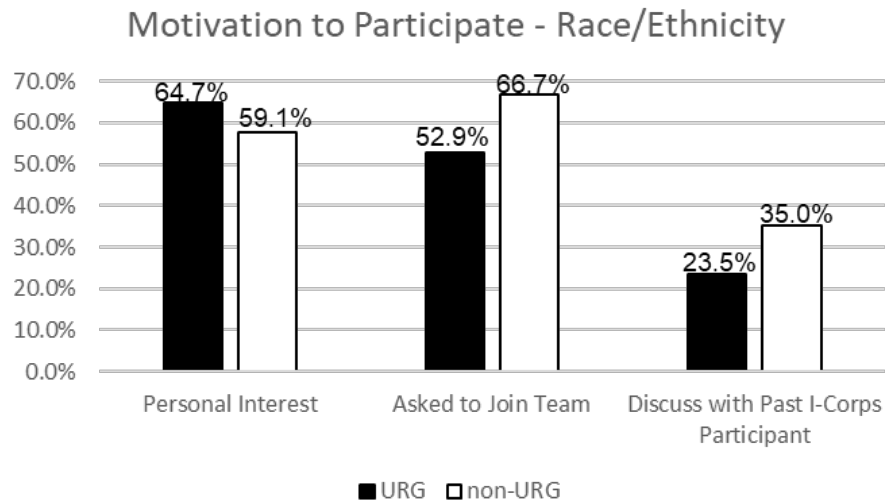
#### *What motivated you to participated in entrepreneurial train through the I-Corps Training Program*

For this question, we were curious as to what lead to the participation in I-Corps. We asked questions related to personal interest in entrepreneurship, whether the participants was asked by someone to join a team, and/or whether the participant discussed I-Corps with someone who participated in the past.





*Figure 2: Motivation to Participate - Gender Factor*



*Figure 3: Motivation to Participate - Race-Ethnicity Factor*

When considering the motivation along gender identity, there was not any significant difference. The most significant difference was in terms of motivation due to personal interest in entrepreneurship. In this case 54.1% of respondents identifying as female selected personal interest as a motivating factor and 60.0% of respondents identifying as male selected personal interest as a motivating factor. In regards to racial/ethnicity as factors, we find that the most significant difference was observed regarding being asked to join a team and talking to past participants in the I-Corps program. We find that 52.9% of the respondents identifying as a member of an URG were approached by others forming a team as compared to 66.7% of the respondents identifying as member of a non-URG. Additionally, we find that 23.5% of the respondents identifying as a member of an URG discussed with past participants in I-Corps. This is compared to 35.0% of the respondents identifying as member of a non-URG.

*How satisfied were you with the intellectual diversity of the I-Corps participants and the racial/ethnic diversity?*

For these questions, we were considering both the opinions on cognitive diversity as well as demographic diversity. This was in reference to the learning and interacting with members from the various teams participating in the National I-Corps Program.

*Table 3: Diversity - Gender Factor*

<b>Diversity</b>	<b>Female</b>	<b>Male</b>
Cognitive Diversity	76.9%	94.4%
Racial-Ethnic Diversity	58.3%	76.8%

*Table 4: Diversity - Race/Ethnicity Factor*

<b>Diversity</b>	<b>URG</b>	<b>non-URG</b>
Cognitive Diversity	94.1%	87.9%
Racial-Ethnic Diversity	68.7%	72.7%

We do observe some noticeable difference when gender is considered as a factor. We find that 76.9% of respondents identifying as female were satisfied or very satisfied with cognitive diversity and 58.3% were satisfied or very satisfied with racial-ethnic diversity. In comparison, 94.4% of respondents identifying as male were satisfied or very satisfied with cognitive diversity and 76.8% were satisfied or very satisfied with racial-ethnic diversity. When comparing URG and non-URG, we find that 94.1% of respondents identifying, as members of a URG were satisfied or very satisfied with cognitive diversity and 68.7% were satisfied or very satisfied with the racial-ethnic diversity. In comparison, 87.9% of respondents identifying as members of a non-URG were satisfied or very satisfied with cognitive diversity and 72.7% were satisfied or very satisfied with racial-ethnic diversity. Another, observation that we notice was that if we breakdown the race-ethnicity factor into sub-groups, we find that 33.3% of respondents identifying as black or African American were satisfied or very satisfied with the racial-ethnic diversity. In comparison, 88.8% of respondents identifying as Hispanic/Latinx were satisfied or very satisfied with the racial-ethnic diversity.

*How personally connected and beneficial were the NSF I-Corps Program Workshop Activities?*

For this question, we were interested in understanding the perceived benefit and how connected the participant felt regarding the workshop activities. When the respondents were asked *whether they agree that the workshops connected with their*

*personal background and experience*, we find that 61.5% of the respondents identifying as female agree or strongly agree with the statement. We find that 69.4% of the respondents identifying as male agree or strongly agree. *When asked if the workshop activities seem to promote diversity and inclusion*, we find that 26.9% of respondents identifying as female agree or strongly agree with the statement. We find that 56.7% of the respondents identifying as male agree or strongly agree. *When asked if the workshop activities helped the team become more cohesive*, we find that 65.3% of the respondents identifying as female agree or strongly agree with the statement. We find that 73.6% of the respondents identifying as male agree or strongly agree. We compared URG to non-URG participants. When the respondents were asked *whether they agree that the workshops connected with their personal background and experience*, we find that 76.4% of members of a URG agree or strongly agree with this statement. This is in comparison to 63.7% of members from a non-URG. *When asked if the workshop activities seem to promote diversity and inclusion*, we find that 41.1% of the respondent that identify as a member of a URG agree or strongly agree with the statement. We find that 50% of the respondents identifying as non-URG agree or strongly agree. *When asked if the workshop activities helped the team become more cohesive*, we find that 76.4% of the respondent that identify as a member of a URG agree or strongly agree with the statement. We find that 65.5% of the respondents identifying as non-URG agree or strongly agree.

Diversity	Female	Male	Sig
Workshops connected with personal background and experience	61.5%	69.4%	.108
Diversity and Inclusion demonstrated in workshops	26.9%	56.7%	.009
Workshops helped team become more cohesive	65.3%	73.6%	.134

Figure 4: Perception of Diversity - Gender Factor

Diversity	URG	non-URG	Sig
Workshops connected with personal background and experience	76.4%	63.7%	.260
Diversity and Inclusion demonstrated in workshops	41.1%	50.0%	.120
Workshops helped team become more cohesive	76.4%	65.5%	.497

Figure 5: Perception of Diversity - Race-Ethnicity Factor

*Did you feel valued as a member of the National I-Corps Team?*

For this question, we wanted to understand if the participant felt valued as a member of team, was supported by the I-Corps program facilitators, and was comfortable asking questions. *When asked if you felt welcomed as a contributor to the team*, we find that 80.7% of the respondents identifying as female agree or strongly agree that they felt welcome as a contributor. We find that 92.9% of respondents identifying as male agree or strongly agree. In addition, for this question we find that 94.1% of respondents identifying as a member of an URG agree or strongly agree. We find that 82.7% of respondents identifying as a member of a non-URG agree or strongly agree. *We asked if you felt supported by the I-Corps program facilitators and instructors*, we find that 80.7% of the respondents identifying as female agree or strongly agree that they felt supported. We find that 82.8% of respondents identifying as male agree or strongly agree. We find that 94.1% of the respondents identifying as a member of a URG agree or strongly agree. Additionally, we find that 75.4% of respondents identifying as a member of non-URG agree or strongly agree. *When asked how satisfied you were with the level of engagement with the I-Corps facilitators*, we find that 69.2% of respondents that identify as female were satisfied or very satisfied with the level of engagement. We find that 81.1% of the respondents that identify as male were satisfied or very satisfied. We find that 88.2% of the respondents that identify as a member of an URG are satisfied or very satisfied with the engagement. We find that 69.6% of respondents that identify as a member of a non-URG are satisfied or very satisfied.

<b>Facilitator Engagement</b>	<b>Female</b>	<b>Male</b>	<b>Sig</b>
Welcomed as a valued contributor	80.7%	92.9%	.002
Supported by facilitators and instructors	80.7%	82.8%	.064
Satisfied with level of engagement with facilitators and instructors	69.2%	81.1%	.061

*Figure 6: Facilitator Engagement - Gender Factor*

<b>Facilitator Engagement</b>	<b>URG</b>	<b>non-URG</b>	<b>Sig</b>
Welcomed as a valued contributor	94.1%	82.7%	.431
Supported by facilitators and instructors	94.1%	75.4%	.491
Satisfied with level of engagement with facilitators and instructors	88.2%	69.6%	.489

*Figure 7: Facilitator Engagement - Race-Ethnicity Factor*

*What is the status of your entrepreneurial pursuit or traction?*

One of the goals of the NSF I-Corps training is to increase and support the commercialization and translation of deep tech through new company formation. In this question, we hope to learn the status of any entrepreneurial ventures focused on the technology that was introduced during the national I-Corps training. We inquired about whether or not a new venture had been started or not. We find that 42.3% of the respondents identifying as female had not started a venture, 57.6% had started a venture. We find that 43.7% of respondents identifying as male agree had not started a venture, 56.2% had started a venture. When considering race-ethnicity as a factor, we find that 52.9% of the respondents identified as members of an underrepresented minority group, 47.0% had started a venture. For the groups identified as non- underrepresented minority group, we find that 40.9% had not started a venture and 59.0% had started a venture.

Status of Venture	Female	Male
Have not started, not sure when	42.3%	43.7%
Started before I-Corps Program	26.9%	30.9%
Started during I-Corps Program	0.0%	7.0%
Started after I-Corps Program	30.7%	18.3%

Sig = .260

*Figure 8: Status of Venture- Gender Factor*

Status of Venture	URG	non-URG
Have not started, not sure when	52.9%	40.9%
Started before I-Corps Program	11.8%	31.8%
Started during I-Corps Program	5.8%	6.1%
Started after I-Corps Program	29.4%	21.2%

Sig = .238

*Figure 9: Status of Venture - Race-Ethnicity Factor*

*What is the one word that describes your experience in the National I-Corps Program?*

For this question, we did not provide any prompts. This question was open-ended and the respondent could use whichever word or in some cases phrase that came to mind. Based on the data we identified three words that were most common in the description – stressful, exhausting, and intense. We tested for the presence of these words in the respondent comments. From our analysis, we find 46% of the respondents that identified as female describe their overall experience using one or more of these words; 17.6% of the respondents that identified as under-represented minority describe their overall experience using one of these words; and 9.7% of the respondents that identified as male describe their overall experience using one or more of these words.

Table 3 shows other statements or phrases highlighted in the data by the different team members based on their role.

Table 5: Phrase and Statements from Team Members

Entrepreneurial Lead (EL)	Technical Lead (TL)	Industry Mentor (IM)
<i>"I-Corps transformed me into an entrepreneur and took our business from a hobby to a serious pursuit"</i>	<i>"Alienating. I was told by the NSF rep on the first day that because I was the technical lead, I was supposed to sit back and "let the entrepreneurial leads learn"</i>	<i>"It met the objectives of the program"</i>
<i>"Curriculum is great, faculty were boorish without cause where they could have been helpful"</i>	<i>"Insufficient"</i>	<i>"Compressed and purposely stressful, but sometimes too academic"</i>
<i>"How to bridge the gap between lab and real-life"</i>	<i>"The experience opened my eyes to a different way of thinking about my research"</i>	<i>"Valuable workshop with measurable results"</i>
<i>"Mind-expanding"</i>	<i>"Superficial"</i>	<i>"Not very beneficial personally and somewhat disrespectful of my experience and qualifications as a mentor"</i>
<i>"Rigorous"</i>	<i>"Disappointing"</i>	<i>"Great experience to allow academic researchers to explore their entrepreneurial opportunities"</i>
<i>"Ineffective"</i>	<i>I learned quite a bit about entrepreneurship and had a chance to gain knowledge on the business side of things. The instructors made the sessions interactive.</i>	<i>"Good but mostly irrelevant to what I do"</i>

## 5.0 Conclusion

The research questions introduced in section 1.0 are addressed by considering survey respondents using on racial-ethnicity and gender identify as units of analysis. In this exploratory study, we were focused on capturing the perceptions of experiences of National I-Corps program participants. The primary intent was to assess the climate within the training program along the dimensions of biasness and inclusivity.

From the data analysis, we do observe that the I-Corps program delivers a good introductory training in "deep tech" commercialization. However, there seems to be different perceptions of the climate and some group feel connected others feel disconnected, at times, to the training process. One challenge that the I-Corps program has identified and articulated is the need to increase the participating of under-represented minorities and women. In regards to motivation to participate in I-Corps training, respondent identified as members of a URG selected "personal interest" at about the same percentage as non-URG. However when considering other motivating factors particularly being asked to join a team or discussing I-Corps with a past participant before choosing to participate, we find that the difference is much greater. Based on the data in this study, we find that 52.9% of members are approached regarding joining a team (66.7% non-URG). We find that 23.5% of respondents identifying as URG speak with past members in comparison to 35% of non-URG members. Analysis of this data is still in its early stages.

## **6.0 Future Work**

Of the 484 recipients of the initial survey, 100 recipients complete and submitted the survey. One of the questions on the survey asked if we could contact the respondent for a 1-on-1 interview. Of the 100 respondents, 62 have agreed to an interview. We have completed 25 interviews and planning to finish the remaining 37 over the Spring. The interview data along with the survey data will allow us to deploy a mix-methods approach that will potentially provide new insights. Additionally future works will explore the team dynamics. We have data from 62 unique teams with 23 teams having multiple respondents to the survey agreeing to the 1-on-1 interview. This may allow us to gain some insight in the relationship of “deep tech” commercialization and team dynamics and/or perceptions. Additionally, we will reconsider the data analysis classifying respondents identifying as Asian as members of an underrepresented minoritized group.

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