

# Resonate RCT Final Report

Megan Lang<sup>1</sup>, Edward Soule<sup>2</sup>, and Catherine Tinsley<sup>3</sup>

## Introduction

Resonate has been delivering workshops to women and girls throughout East Africa for over seven years. In 2019-2020, we were invited to conduct research on the workshops. In response, we designed survey instruments to estimate and evaluate the impacts of two different workshops on participating women. These instruments were administered in a randomized control trial (RCT) in which we gathered pre-and post-treatment data from participants in the two workshops, as well as from a control group. The results of greatest interest included a range of psychosocial and economic outcomes. We studied Resonate's workshops in the context of a partnership with Care International Rwanda, where Resonate worked with women who have been part of Care's efforts to organize cooperatives.

Our findings show that Resonate's Storytelling for Leadership workshop improves participants' psychological well-being and social connectedness **compared to a control group that received the per participant cost of the workshop in cash**. Of the items we tested, Storytelling for Leadership registered improvements on five outcomes: 1) self-value, 2) problem-solving skills, 3) connections to communities, 4) self-assessed Subjective Social Status (SSS), 4) propensity to speak up, and 5) likelihood of identifying as a leader. In contrast, Resonate's Professional Development workshop registered improvements in measurements of economic well-being such as income, participation in paid work, and achieving a stated goal. Additionally, participants in Professional Development workshops, as in the Storytelling for Leadership workshop, are more likely to self-identify as a leader than they were before the workshop.

Further analysis suggests that the two workshops are effective for different types of participants: women under forty derive marginally greater benefits from Storytelling for Leadership, while women over forty derived marginally greater benefits from the Professional Development workshop. These differential effects are consistent with both the internal, psychological constraints we might expect to see in younger women and the external barriers that younger women might face in attempting to locate economic opportunities and achieve their goals. Taken together, our results point to important roles for both workshops, and the possibility of enhanced impact from targeting workshops to specific groups of participants or combining elements of the two workshops into a hybrid model.

## Resonate Workshops

Resonate's model is specifically designed to complement the programs of its partner organizations. The goal is to amplify the impact of the partner organization's work by either addressing internal constraints participants may be facing or providing complementary soft skills.

---

<sup>1</sup> PhD Candidate, UC Berkeley Department of Agricultural and Resource Economics.

<sup>2</sup> Associate Professor, Georgetown University McDonough School of Business.

<sup>3</sup> Raffini Term Professor and Academic Director for the Executive Master's in Leadership (EML) Program.

The Storytelling for Leadership program helps participants shift their mindsets so that they begin to see themselves as leaders who are proactive in the face of challenges. Through the process of identifying their values and learning to reframe and tell their story about times in their lives when their actions reflected those values, they gain the confidence to take on a leadership role in their community and advocate for themselves. This process entails deep self-reflection and requires trust in the other workshop participants as women share stories from their lives. The intention is to empower participants to become confident and advocates for themselves and their communities through this process of collective self-reflection. The Storytelling for Leadership course is based on a proven framework developed by Harvard Professor Marshall Ganz and is used as a community organizing technique worldwide.

Resonate's Professional Development Program centers on equipping participants with tools to help them build leadership and soft skills to help them achieve their goals and advance in their careers or their ambitions. Resonate has more than 12 different Professional Development modules. For this research, Resonate delivered three Professional Development modules: Goal Setting, Effective Communication, and Seeking Out Opportunities. Participants learned how to set SMART goals, how to network in order to identify promising opportunities, and worked on their public speaking skills. While these activities may also increase participants' self-confidence, the focus is more external than it is in Storytelling for Leadership.

## Research Methods

Starting in late August of 2019, we sent enumerators to survey 456 women who were part of Care cooperatives in Nyaruguru district. After the baseline survey, Resonate held a series of Storytelling for Leadership and Professional Development workshops throughout September and early October. We randomly assigned one third (n= 153) of surveyed participants to attend a Storytelling for Leadership Workshop and one third (n=148) to attend a Professional Development workshop. The remaining one third (n=155) of participants received cash equal to the approximate per participant cost of delivering the workshops – 32,000 FRW. **Therefore, all of our results are presented relative to a cash benchmark rather than simply comparing the impact of Resonate workshops to the impact of no supplemental activities.**

While we had originally planned to survey participants after six months and one year, COVID-19 regulations prevented us from carrying out the six-month follow-up survey and slightly delayed the one-year follow-up survey. Here, we present results based on the baseline data and data collected in November of 2020: around 13 months after the workshops and receipt of cash. In many of our results, we observe outcomes that are lower during our follow-up survey than they were in the baseline survey, for all three groups. We believe that many of these negative trends between baseline and follow-up are driven by the impact of COVID-19. However, our cash control group allows us to estimate the impact of Resonate's workshops even in the face of these negative impacts from COVID-19, demonstrating the importance of using an RCT.

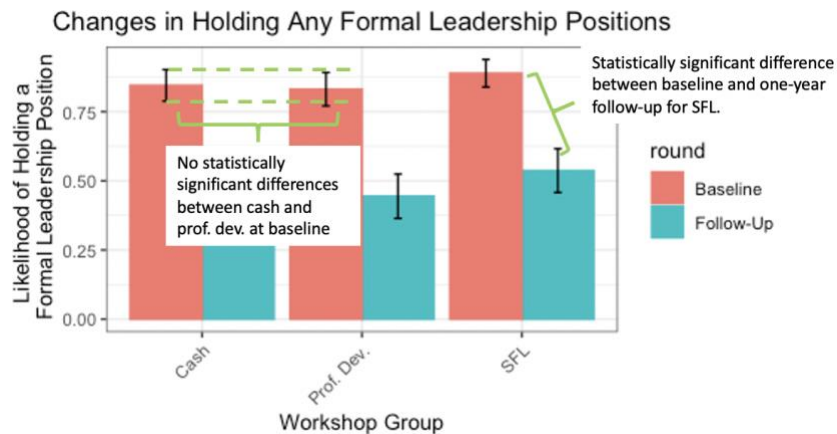
In the remainder of the report, we first present outcomes where we see significant impacts from Storytelling for Leadership (SFL), then we present outcomes where we see significant impacts from Professional Development (PD). We then show evidence on differential effects by age, discuss our results, and conclude. The appendix provides additional information on outcomes that

we included in our survey where we do not see significant effects from either workshop in comparison to the control group.

### Notes on Interpreting Results

Many of the psychosocial outcomes discussed below are measured with two or more questions, a common practice for capturing intangible concepts. We then equally weight responses and combined into an index variable. Having multiple questions measure each concept helps more fully capture the domain of each construct and reduces random noise.

For most outcomes we evaluate, we present a figure with bars showing average levels for each of the three groups at baseline and at the one-year follow-up. Each of these bars has a black 95% confidence interval on it. Whenever the confidence intervals on two different bars do not overlap, it means that the two averages are statistically significantly different at the 5% level. For instance, in the figure below we can see that baseline and follow-up levels are significantly different within each group. However, there are no statistically significant differences *between* groups in a given survey round.



When we estimate the effect of SFL or PD on a given outcome, we are looking at differences in the one-year follow-up between groups, controlling for each woman’s baseline level of the outcome in question. We further control for the fact that we are testing a large number of different outcomes. When testing a large number of outcomes, it is possible that some will look significant just by chance. Therefore, in the remainder of the report we will be highlighting only those outcomes that remain statistically significant once we have controlled for the number of outcomes that we are testing.

### Storytelling for Leadership

We find that Storytelling for Leadership has positive and significant impacts on a range of psychosocial outcomes. These positive impacts are consistent with the structure of the workshop and the ample use of experiential learning techniques. Participants engage in self-reflection and storytelling exercises that encourage a sense of community. Below, we describe our measure of each outcome and present our findings in graphical form.

## Self-value

Survey questions to measure self-value are (measured on a 4-point Likert scale where 1= not at all true and 5= very true):

- 1) I matter.
- 2) There are good things about me.

Figure 1 shows that even though all groups had a significant drop in their self-value scores between baseline and the one-year follow-up, women who participated in SFL have scores that are 7.5% higher than those in the cash group.

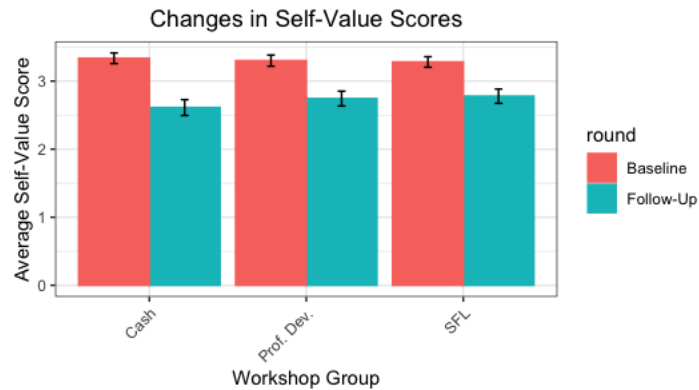


Figure 1: Self-evaluation of value

## Problem-Solving Ability

Survey questions to measure problem-solving ability are (answered on a 5-point Likert scale where 1 = almost never true and 5 = almost always true):

- 1) I can solve problems.
- 2) If I am struggling to solve a problem, there are others whom I can go to for help.

We find that women who participated in SFL have significantly higher scores on problem-solving ability than women in the cash group, with the average score being 8% higher as shown in figure 2.

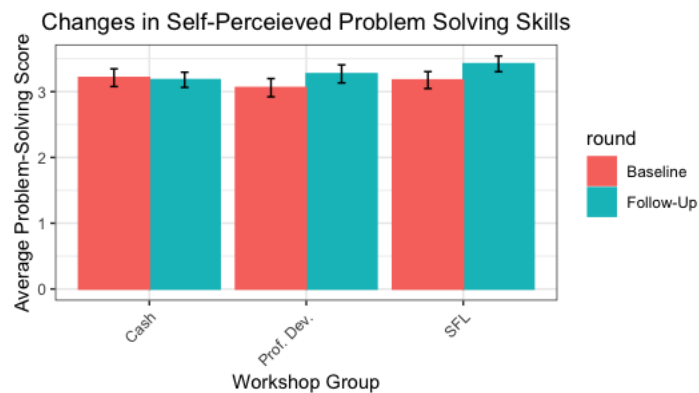


Figure 2: Problem Solving

## Connectedness to Home/Village

Survey questions to measure participants' connectedness to home/village are (all answered on a 5-point Likert scale from 1= almost never true to 5= almost always true):

- 1) People are likely to come to me for advice.
- 2) I help others.
- 3) I have people with whom I feel completely secure.
- 4) There are people who will stand by me during difficult times
- 5) People know a lot about me.

We see significant increases in pre vs. post connections with home and village scores for women who participated in Storytelling for Leadership. Here, women in SFL have scores that are 4.4% higher than the cash group.

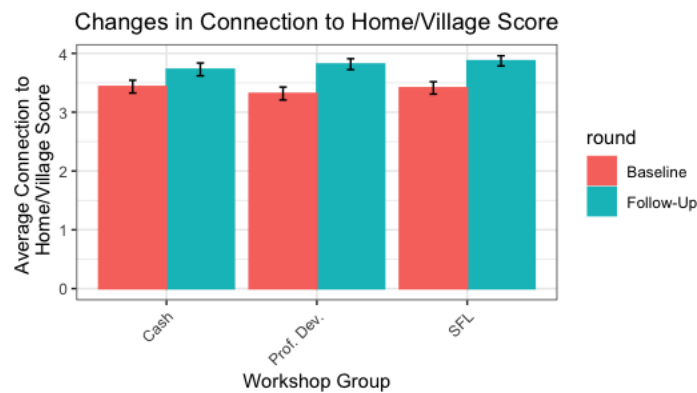


Figure 3: Connections to Home/Village

We do not see significant impacts on connections within cooperatives. This is potentially because our workshop groups each included women from different cooperatives. Thus, any bonding that might have occurred during the workshop was not reinforced with everyday cooperative activities and contact. It is possible that a workshop delivered to a cooperative as a whole may have a positive impact on the sense of connection within the group.

## Subjective Social Status

We use the MacArthur Scale of Subjective Social Status (SSS) to elicit participants' assessments of their social status at present, five years in the past, and five years in the future on a scale between one and ten. While we do not see impacts on assessments of future SSS, figure 4 shows that women who participated in SFL have significantly higher evaluations of their current SSS, both relative to women in cash and PD and relative to their own baseline responses.

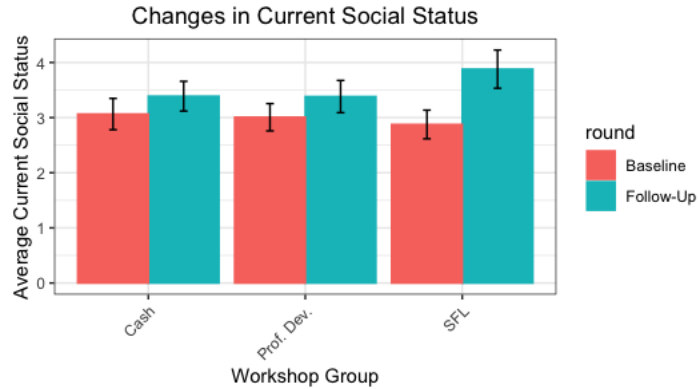


Figure 4: Current Social Status

Interestingly, the increases in participants’ SSS in the present may have had some spillover effects for their responses evaluating their past social status of 5 years ago. All follow up respondents reported higher levels of SSS 5 years ago than they reported at baseline, and participants in SFL show more of an increase in this measure than did participants in the PD or cash groups (Figure 5). While unexpected, this result may directly reflect the activities that take place during SFL. Participants share stories from their past that demonstrate times when they took actions that reflected their values. Sharing these stories may cause participants to update and increase their assessments of their past SSS.

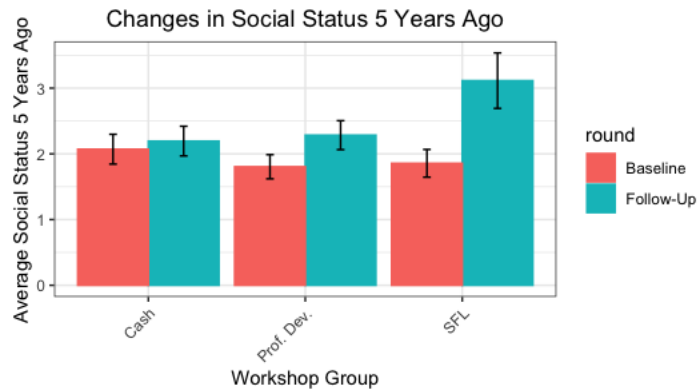


Figure 5: Past Social Status

### Identifying as a Leader

We ask how much participants identify with being a leader using a visual series of increasingly overlapping circles. This visual scale is equivalent to a 6-point Likert measure.

We see a positive and significant increase in how much participants in both SFL and PD identify as being a leader. In both cases, these effects are large. After controlling for baseline scores, women who participated in SFL have a 31.4% higher score on this measure than women in the cash group, and women who participated in PD have 20.2% higher scores than those in the cash group.



Figure 6: Identify as a Leader

We do not find significant differences in the number of formal leadership roles that women take on. While this may seem counterintuitive, the large increase in self-identifying as a leader with no significant differences in formal leadership roles may point to Resonate’s effect on peer leadership (or “leading without authority”). SFL in particular emphasizes the many forms that leadership may take that go far beyond formal roles. Large changes in our self-identified measure suggest that participants effectively internalized that portion of the workshop.

### Speaking Up

We ask whether each woman has spoken up in a group situation where she did not know everyone present in the last two weeks. We find significant improvements among women who participated in SFL. Figure 4 shows that women who participated in SFL are 67.3% more likely to speak up than those in the cash control group, and 57.3% more likely to speak up than women who participated in PD.

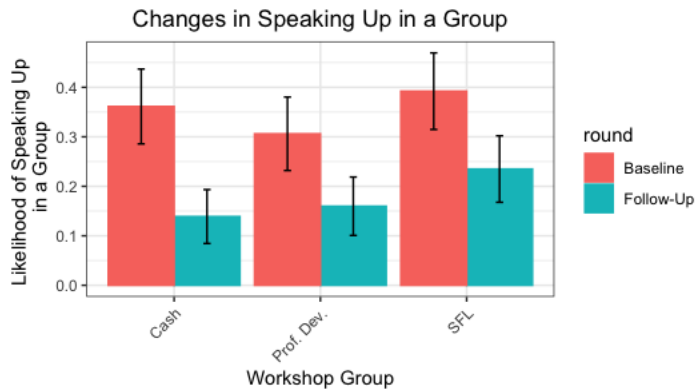


Figure 7: Likelihood of Speaking Up

Interestingly, when we ask women where they spoke up, they report the following types of places:

- 1) Markets – interacting with customers, helping to sensitize and enforce COVID regulations,
- 2) Family or neighbor dispute resolution meetings,
- 3) Savings group meetings (when there were new members present).

This further supports the notion that SFL is particularly effective at promoting peer leadership, as we can see women speaking up and leading in situations where they may not hold a formal leadership role.

Taking all of these results together, it appears that Storytelling for Leadership has positive and lasting impacts on participants' psychosocial well-being. A full year after the SFL workshop, participants experienced a boost in their self-esteem as demonstrated through the positive effects we estimate on self-value and current and past social status. The estimated impacts on connectedness to homes and villages suggest that SFL is effective at building a sense of community. We interpret positive effects on problem solving, identifying as a leader, and speaking up as evidence that participants leave SFL with a higher sense of their own agency and their ability to advocate for change.

## Professional Development

We find that the Professional Development workshop has positive and significant impacts on economic outcomes as well as participants' ability to achieve a goal set at baseline, although we see no significant impacts on our psychosocial outcomes. This suggests that PD is effective at providing skills and strategies that help women identify and take advantage of opportunities to achieve their goals, but that it does not carry the same impacts on internal outcomes as SFL.

## Monthly Income

We ask all participants to report how much income they earned in the previous month at baseline and during the one-year follow-up. For all women who did not engage in any income-generating activities in the previous month, we record earned income as zero.

Figure 8 shows that income dropped between baseline and the one-year follow-up for women in all three groups. However, when we control for baseline levels of income, women who participated in PD earn 116% more than women in the cash group at the one-year follow-up, an effect which is significant at the 10% level.<sup>4,5</sup> At a minimum, this suggests that PD helped women regain income more quickly than women in the cash group after the economic shocks due to COVID restrictions were lifted.

---

<sup>4</sup> We point out that this result is only significant at the 10% level to communicate that the effect is estimated with less precision than our other outcomes. This is due to the relatively high variance we observe in reported monthly incomes (the error bars in this chart are very large).

<sup>5</sup> The estimated impact on monthly income for SFL is 68.9%; however, this effect is measured imprecisely and is not statistically significant.



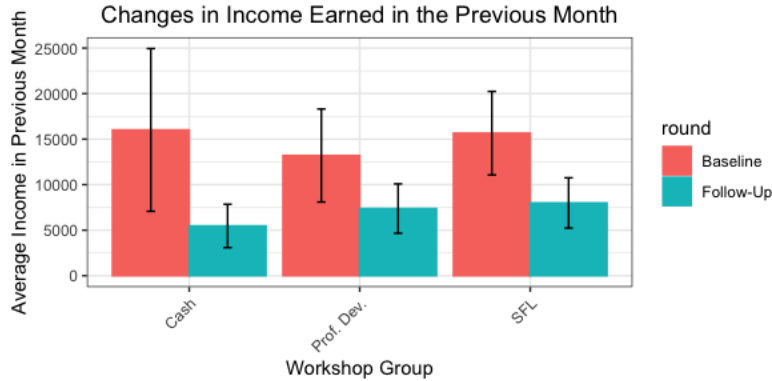


Figure 8: Income the Previous Month

### Participation in Income-Generating Activities

We ask women whether they have engaged in any income-generating activity in the past month during both surveys. Similar to what we see in figure 8, figure 9 shows that women in all three groups are less likely to be earning any income at the one-year follow-up than they were at baseline. However, women who participated in PD are 12.3% more likely to be engaging in income-generating activities at the one-year follow-up than women in the cash group, after controlling for whether each participant was engaged in income-generating activities at baseline.<sup>6</sup>

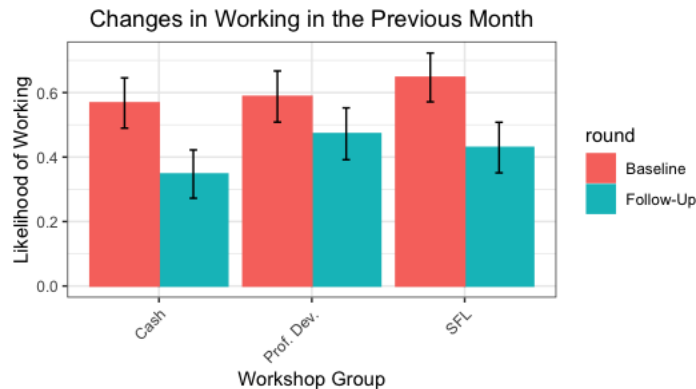


Figure 9: Likelihood of Engaging in Income-Generating Activity

### Achieving Goals

During the baseline survey, each woman told us whether she had a goal for the next six months and, if so, what the goal was. We used baseline data to specifically ask each participant whether they had achieved their goal at the one-year follow-up. We find that women who participated in PD are 31.3% more likely to have achieved the goal they set at baseline than women in the cash group, suggesting that the types of skills emphasized during the PD workshop were effective at helping women achieve their goals even in a year that included the challenges of COVID-19.

<sup>6</sup> The estimated effect for SFL for participating in income-generating activities is 7.2%; however, this is not statistically significant.

The combined results for Professional Development suggest that it is effective at providing tools that participants can use to set and achieve goals, and that these goals may have material impact on participants’ economic wellbeing. However, it does not have the same positive effects on psycho-social outcomes that we see from Storytelling for Leadership. In the next section, we explore which types of participants benefit the most from each workshop given that SFL and PD demonstrate impact in different domains.

## Effects by Age

While it is useful to understand the impacts of Resonate’s Storytelling for Leadership and Professional Development workshops on average, we also ask which types of participants benefit the most from each workshop. In this section, we present suggestive evidence on differential impacts of SFL and PD for women who are over versus under forty years old. We also checked for differential effects on the basis of baseline social status, self-value, connectedness to home/village, and participation in work. However, age was the only variable that displayed consistently differential patterns between groups.

The charts below show differences in selected **one-year follow-up outcomes** for women who are over versus under forty. We find that women under forty who participate in SFL have significantly higher effects on current social status (figure 10) and the likelihood that they achieve the goal that they set relative to women over forty (figure 11). These differences are consistent with our theoretical expectations, that younger women might benefit more from the SFL workshop since it targets improving the types of internal constraints that younger women are more likely than older women to face. For example, younger women may suffer from lower self-esteem or beliefs about their own agency and abilities compared to older women. Similarly, younger women may feel less embedded in a community of support or network of people for whom they are an integral source of care and sustenance and hence who look up to them. If so, then the SFL training will be particularly powerful for younger women.

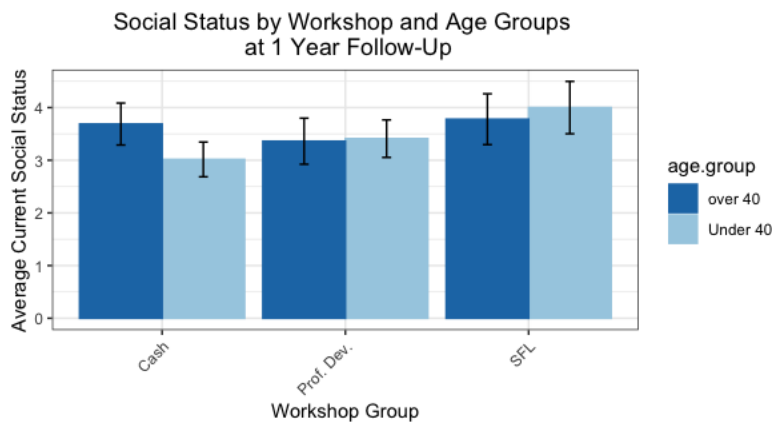


Figure 10: Social Status by Age Group

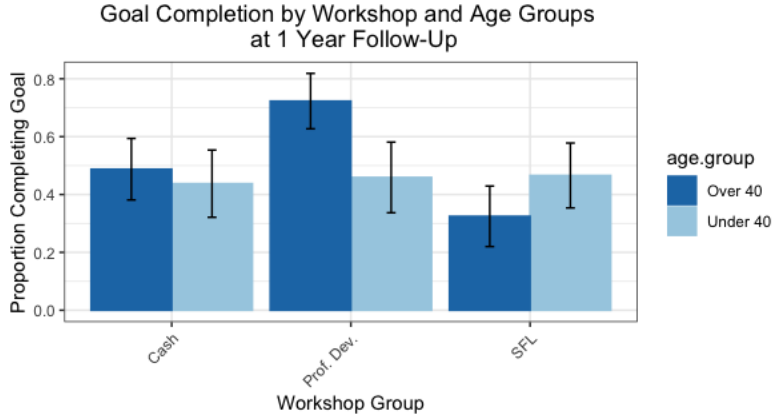


Figure 11: Goal Completion by Age Group

When checking for differential impacts by age for Professional Development workshop participants, we find the opposite. As shown in figure 11, women over forty who participated in PD are significantly more likely to achieve their goal than those who are under forty. While not statistically significant, we also see that women over forty appear to be driving the positive effects that we observed on income and participation in income-generating activities (figures 12 and 13, respectively).

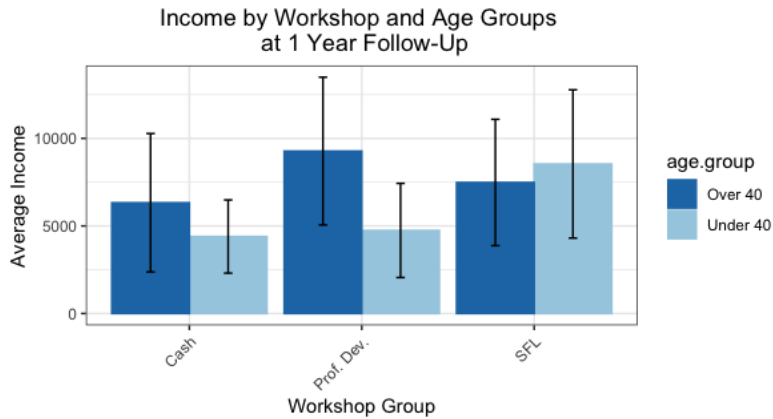


Figure 12: Income by Age Group

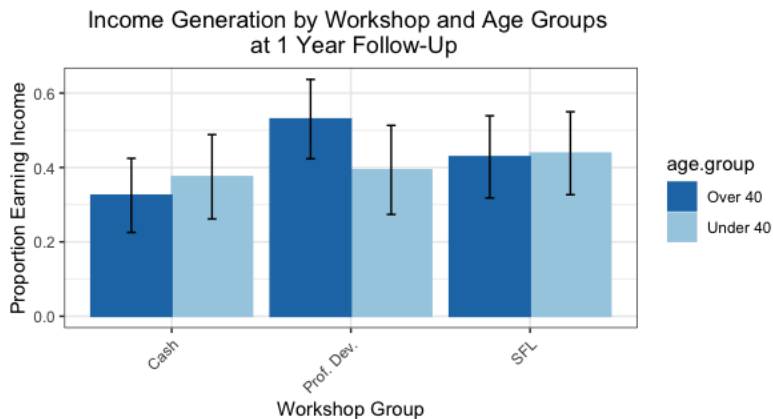


Figure 13: Income Generation by Age Group

We hypothesize that these differential effects could be driven through two possible channels. For one, women over forty may face fewer internal constraints, thereby allowing them to benefit more from the skills-based PD workshop. However, women over forty may also enjoy more respected positions in their communities, lowering some of the external barriers that younger women may face when trying to achieve their goals.

## Discussion and Conclusion

The results of our RCT illustrate that Storytelling for Leadership and Professional Development are both effective workshops, but their benefits occur in different domains and for different types of participants. Storytelling for Leadership has meaningfully positive and significant impacts on a range of psycho-metric outcomes along with the measures of peer leadership. Some of these impacts are largest for women under forty, suggesting that SFL may be particularly effective and important for younger women who do not yet view themselves as persons of stature and ability within their communities. Conversely, Professional Development has large and significant impacts on economic outcomes and participants' ability to achieve their stated goals, with effects being driven largely by women who are over forty.

We view these results as overwhelmingly positive evidence of the impacts of Resonate workshops as well as tools for increasing impact even more moving forward. Targeting Storytelling for Leadership younger women may maximize the impact of the workshop, while Professional Development will likely have the largest benefits for older women who already enjoy a certain level of respect or status in their communities or workplaces. However, it is important to place all of our results in the context of the economic and social disruption caused by COVID-19. For instance, SFL and PD may both improve outcomes for young women when there are more opportunities available. Given our limited ability to understand the impacts of SFL and PD under more normal circumstances, it could be optimal to offer the workshops as a sequence or combine the content into an extended, hybrid workshop. Storytelling for Leadership could raise self-esteem and strengthen a participant's connection with her community, then Professional Development could provide her with the tools necessary to identify opportunities and pursue her goals.

## Appendix: Outcomes with Insignificant Effects

Beyond the results discussed in this report, there are a number of outcomes where we do not observe any statistically significant effects for either group. First, we have a number of measures of aspirations for the future. These include having a role model, believing that you can one day be as successful as your role model, and how long you think it will take you to be as successful as your role model. We do not observe significant effects on any of these outcomes. Second, we create a resilience score and do not detect any significant effects on our measure of resilience. However, we find that our resilience score has low reliability, indicating that these insignificant results could be the result of mismeasurement in our survey design. Third, we create a self-advocacy score and find no significant effects. Fourth, we build a measure of consumption expenditures based on the amount spent on a range of food items over the past week, and we do not find any significant effects on spending. Again, this could reflect mismeasurement, as this was an experimental application of a relatively new measure. Fifth, we build a communication score but find no significant effects using this score.

Finally, when we ask whether respondents have gotten a new job or taken on a new local leadership role in the past six months (a question we only ask during the one-year follow-up survey), there are no significant differences between the three groups. This is consistent with our findings on holding formal leadership roles. As shown in figures 14 and 15, the likelihood of holding any formal leadership role and the number of formal leadership roles held both declined dramatically for all groups between baseline and the one-year follow-up. The decline likely represents a lower number of overall leadership positions during the COVID-19 lockdown when in-person gatherings are not permitted.



Figure 14: Hold a Leadership Position

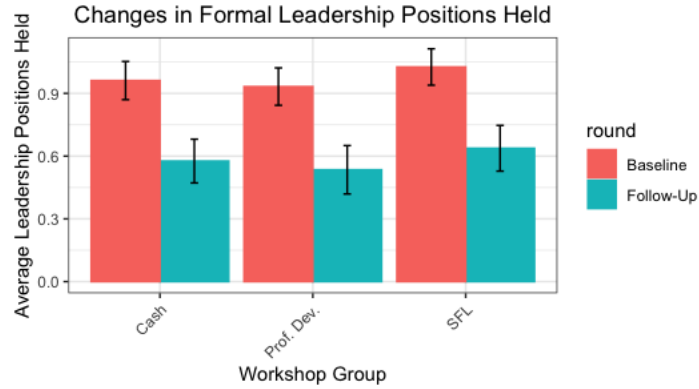


Figure 15: Number of Leadership Positions Held