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NGO Aliadas en Cadena

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Achievements and Challenges in Gender Equality

Over the past quarter century, impressive improvements in education, in political participation and in the labor force have been made towards achieving gender equality. In education all developing regions have achieved or are close to achieving gender parity in primary education, and in tertiary education the enrollment rates of women have surpassed the enrollment rates of men in many regions (United Nations 2014). In political participation the proportion of women holding seats in parliament increased in 66% of the chambers renewed in 2013 worldwide. Lastly, in the labor force there have been some improvements in women's access to paid employment in non-agricultural sectors: Women's share increased globally by 5% in the last 12 years (United Nations 2014).

Significant improvements have been made but much remains to be done. Maternal mortality is the leading cause of death for women of reproductive age. One in three women will be raped, beaten or coerced into sex (Aliadas en Cadena, 2014). In education, gender disparity still exists and is more prevalent at higher levels of education. Two thirds of the world's uneducated children are girls and two thirds of the world's 774 million adult illiterates are women, and of 147 countries with data, in 92 countries girls had higher drop out rates than boys (Aliadas en Cadena 2014). Additionally, women tend to have less access to science and technology, and data shows a gender digital gap. This disparity in education contributes to women's higher unemployment rate, and likelihood of only having part time jobs and working in the informal sectors, which provide less economic security and increase the likelihood of women falling below the poverty line (ECLAC 2014).

Specifically in Latin America, only 5 out of 10 working-age women participate in the workforce; the figure for men is 8 out of 10. Additionally, "one third of women depend on others

for subsistence, which makes them economically vulnerable and dependent on income recipients, usually men. This disadvantage is especially critical when violence is not reported because of economic dependence on the perpetrator, with results that are often fatal” (ECLAC 2014).

An Innovative Solution: Aliadas en Cadena

I propose donating to Aliadas en Cadena a Non Governmental Organization established in Caracas, Venezuela, that has created an innovative program to help diminish the repercussions of the existing educational gender gap. Its mission, in line with the third Millennium Development Goal, is to empower women and promote equality through training programs in Information and Communications Technology (ICT), which are intended to empower women by providing them with the tools to achieve economic and interpersonal growth. Aliadas en Cadena’s developmental model focuses on four fundamental pillars: Women’s Human Rights, ICTs, Employment Practical Skills, and Psychosocial Counseling (Aliadas en Cadena 2013).

It was founded in 2006 by the Venezuelan Ileana La Rosa and at present counts with six centers in four of the most populated Venezuelan cities: Caracas, Valencia, Maracaibo, and Barquisimeto (Aliadas en Cadena 2014). The NGO centers are located in favelas and the programs target low-income women. The organization has chosen to target low-income women because it is more difficult for women living in situations of poverty to enter the labor market, given their lower level of education and the obstacles they face in sharing or delegating domestic responsibilities and caring for children and dependents (Aliadas en Cadena 2013). This can be seen in a regional average labor participation rate of 62% among women in the wealthiest quintile and only 38.4% for women in the first quintile (ECLAC 2014).

In an ever more globalized world technology has come to be present in almost all aspects

of our social and professional life. Access to technology is a fundamental right that affects human development, by facilitating communication, management of information, active participation in social and political life and economic growth, thanks to the increase in productivity it generates (The World Bank 2012). Technology has allowed women and men around the world to access markets in growing numbers by lowering information barriers and reducing the transaction costs associated with market work. Because time and mobility constraints are more severe for women than men, women stand to benefit more from these developments (The World Bank 2012).

Aliadas en Cadena's founder and director Ileana La Rosa explains that the organization has chosen to empower women through the use of ICTs because women are frequently excluded from these technologies. "Differences in Internet access and use between developed and developing countries are still very large, and gender gaps are significant in some developed and developing countries " (The World Bank 2012).

Greater understanding and better access to technologies will allow women belonging to vulnerable sectors of the population to acquire the skills to challenge diverse social and economic limitations. The organization is committed to this goal through the implementation of three programs: the ICT Workshop, Community Courses, and Entrepreneurial Workshop. All programs are accompanied by the development of an alumni network.

The ICT Workshops enroll adult women ages 18 to 40 working in the informal sector of the economy, who dropped out of high school or didn't go on to college, in four-month-long IT courses. Upon graduation, the women receive a professional certificate from the well-known Venezuelan "Liberator" Pedagogical and Experiential University. This degree helps to further legitimize their education among employers. While they are completing their IT course the

participants also receive psychosocial counseling and must attend seminars on “Skills for Life.” Obtaining tools for their personal growth and life in areas such as domestic violence prevention, gender education, sexual health, sexual and reproductive rights, birthcontrol, interpersonal relationship management, leadership, entrepreneurship, and teaching methods so that they can teach what they have learned. Upon the successful completion of the courses, the women become certified computer technicians. Aliadas en Cadena then helps place the beneficiaries in internships in the formal sector, where they can apply their acquired knowledge and gain over 320 hours of practical labor training. Internships are intended to lead to full time employment and they work as a trial period for companies and the beneficiaries to determine if they are a good fit for each other (Aliadas en Cadena 2014).

Work in the formal sector provides the beneficiaries, who tend to be single mothers with an average of two to five children and the sole breadwinner’s in their families, with a stable source of income and additional health and state benefits that were unavailable to them when working in the informal sector (La Rosa, Personal Communication) .

The Entrepreneurial Workshop seeks to promote the economic empowerment of women who want to start their own businesses. It seeks to strengthen women’s technical and interpersonal skills in the development of entrepreneurial initiatives that will be self-sustained and scalable. Aliadas en Cadena has made a strategic alliance with the Andres Bello Catholic University (UCAB) and replicates in its own Entrepreneurial Workshop their “Program for Entrepreneurs and Microbusinesses.” This program provides participants the tools necessary to navigate the process of business development. The themes and content of the workshop are customized for the practical application in Venezuela and range from financial accounting, legal frameworks, marketing, to financing options (Aliadas en Cadena 2014).

The Entrepreneurship Workshops target women of any age and education and have

duration of approximately 10 sessions. Having completed the 10 sessions Aliadas en Cadena helps connect the women to financing agencies. Additionally, they organize a business fair and a entrepreneurship conference. In the business fair the entrepreneurs get an opportunity to sell their products and in the entrepreneurship conference Aliada's beneficiaries get an opportunity to meet with other successful entrepreneurs who can provide Aliada's beneficiaries with feedback and advise (Aliadas en Cadena 2014).

Community Courses meanwhile are open to women and men, 15 years or older, with any level of education. They consist of five technical modules lasting 18-hours long each. These modules aim at developing a basic foundation in information services and closing the digital gap. The five modules are: Introduction to computers, Word 2007, Excel 2007, Powerpoint/ Publisher 2007, and Internet and Social Media (Aliadas en Cadena 2014).

Evaluation

Given the constraints on the length of this research paper, I will focus in depth on the evaluation and analysis of only one of Aliadas en Cadena's main programs, their first pilot program: The ICT Workshop. I will first begin by presenting the data that has been kindly provided by the organization:

535 women have completed the 4 month long IT courses. 100% have been placed in internships. 57% have received a full time offer in the formal sector (La Rosa, Personal Communication). The employment rate the program accomplishes is above Venezuela's current female employment rate and above the world's female employment rate (World Bank 2012).

Anecdotal accounts from Aliadas en Cadena report women become more economically independent and earn more secure, steady, well-paid wages, gaining more control over family

finances (Aliadas en Cadena, 2013). Furthermore, they are more likely to leave abusive relations, prioritize their children's education and have healthier families. Additionally, while most women are hired at relatively low or entry-level positions, such as assistants, and operators, most alumni rise in companies in a relatively short period and are offered mid-level jobs (La Rosa, Personal Communication).

No RCT evaluations or any other form of counterfactual evaluations have been used to assess the effectiveness or effects of this program.

Evaluation Analysis

In order to assess if donating to Aliadas en Cadena's ICT Workshop is a good investment, and given the lack of unbiased evaluations on the effects of the ICT Workshop, I examine the academic literature that addresses the anecdotal benefits reported on the move from the informal to the formal sector and the use of ICT training to accomplish that change. I also evaluate Aliadas en Cadena's expected outcome by examining the results obtained by a similar NGO: The Committee for Democracy in Information Technology (CDI). Lastly, because The CDI has not carried out any Randomized Control Trials to assess the effects of its program I also examine an RCT that evaluates the effects of training disadvantaged youth in Latin America.

Academic Literature

The main goal of Aliadas ICT Workshop is to close the digital gender gap as a means to help women move from the informal to the formal sector of employment. In Venezuela 41.8% of women are employed in the informal sector (Aliadas en Cadena 2014). The organization's anecdotal evaluations indicate that the move from the informal to the formal sector provides

women greater economic security (Aliadas en Cadena 2014); the academic literature supports this finding.

The World Bank's 2012 developmental report states that part-time and informal jobs often pay lower (hourly) wages than full-time and formal jobs. Additionally, high concentration of women in these lower-paying jobs weakens the incentives to participate in market work and thus reinforces the specialization in nonmarket (including care) and market work along gender lines within the household. The report goes on to explain that it is precisely this interaction of segregation with gender differences in time use, access to inputs, and market and institutional failures that traps women in low-paying jobs and low-productivity businesses. Breaking out of this productivity trap thus requires interventions that lift time constraints, increase women's access to productive inputs, and correct market and institutional failures (The World Bank 2012). Aliada's program is precisely one such intervention, given that it increases women's access to a productive input—technology.

The literature is also supportive of the use of training programs in ICTs as a means to increase women's employment in the formal sector. A UN Women report states "Trade openness and ICTs have increased women's access to economic opportunities" (UN Women 2013). The demand for female workers in the ex-port and ICT-enabled sectors has increased, and the gender distribution of employment as women have filled these new jobs across sectors and across countries has changed towards greater employment of women in the formal sector (The World Bank 2012).

Results: Committee for Democracy in Information Technology

Examining the results reported by a similar NGO can help shed light on the expected effects of Aliadas en Cadena's ICT Workshop. I had hoped to find several organizations that focused in the use of ICT's for development and had carried out some form of randomized evaluation or RCT. However, all organizations I could find such as Viva Rio, a Brazilian based NGO, and Abantu, a Kenyan organization that like Aliadas trains various women's groups in basic software and Internet skills, had only anecdotal feedback, with the exception of The CDI.

The Committee for Democracy in Information Technology (CDI) is a Brazilian organization present in over 10 Latin American countries, which has served over 400,000 students. Its mission is to reduce the digital gap between the wealthy and poor. It conducts computing training courses in low-income areas (The World Bank 2003). Anecdotal reports state that "The project has generated employment, promoted the inclusion of low-income communities in ICT education, trained business managers, and opened up the employment market to community members" (The World Bank 2003). In 2000 the Institute of Social and Economic Research (ISER)—a consultancy institute with proven expertise in evaluating social programs— prepared a randomized impact evaluation study, which is not the same as a Randomized Control Trial. The study was conducted to determine the profile of CDI students, as well as to measure the impact of the courses offered. It showed that: 90% of the students surveyed believed that the course fulfilled their expectations, 90% wanted to continue studying at CDI, 79% had the hope of achieving better career opportunities after taking CDI's courses, and 87% felt that the courses helped bring about a positive change in their lives, such as finding work, showing motivation to return to regular school, or occupying free time productively. Results for the study were very positive and supportive of Aliadas anecdotal feedback but the study is not a Randomized Control Trial and provides no quantitative information on the difference the CDI has made compared to the counterfactual (The World Bank 2003).

Results: RCT Youth In Action

Youth in Action is a Colombian government intervention that began in 2005. It provides three months of in-classroom training and three months of on-the-job training to young people between the ages of 18 and 25 in the two lowest socio-economic strata of the population. The intervention's goal is to reduce youth unemployment (Attanasio, O., Kugler, A., Meghir, C 2008).

The intervention combined with a randomized experiment, gives a unique opportunity to offer reliable evidence on the value of training in developing countries (Attanasio, O., Kugler, A., Meghir, C 2008). Given that Aliadas ICT Workshop is also a type of training intervention, which targets individuals in the lowest socio-economic strata and even has a comparable internship component, we could expect similar results.

In this RCT the treatment group is constituted of a random sample of individuals from the pool of qualifying applicants. The control group is constituted by all other individuals who applied and qualified but for whom there was no space in the program (Attanasio, O., Kugler, A., Meghir, C 2008).

Results on the impacts of the program show large effects. In particular, being offered training increases paid employment by about 14% and increases days and hours worked by about 11%. The monthly wage and salary earnings of women offered training are about 30,000 Colombian pesos (US\$15) or 18% higher than those of women not offered training (Attanasio, O., Kugler, A., Meghir, C 2008). Moreover, the likelihood of being employed in jobs that offer non-wage benefits and of having a written contract is 0.05 higher for women offered training. In fact, the gains from training seem largely linked to employment in the formal sector, as wage and salary earnings gains after training are only linked to those in the formal sector but not for informal sector

workers. Men also benefit from being offered training, but the effects for men are more limited (Attanasio, O., Kugler, A., Meghir, C 2008). The monthly wage and salary earnings of men offered training are 22,600 Colombian pesos or 8% higher than the salaries of those not offered training. Training offers also double the likelihood of getting a formal sector job and a job with a written contract for men. Also, as for women, wage and salary earnings gains after training are due to earnings increases for those employed in the formal sector (Attanasio, O., Kugler, A., Meghir, C 2008).

The academic literature, CDI study and especially the Youth in Action RCT provide strong evidence that support the anecdotal results reported from Aliada's ICT Workshop. The most convincing evidence is that the wage increase which comes primarily from the insertion of beneficiaries into the formal sector in the Youth Action RCT is greater for women than for men, which means it would be more cost-efficient to fund a training program that targets women, such as Aliadas en Cadena's program. Additionally the social marginal returns on investing on women tend to be higher because women are more likely to invest what they earned in their own households in ways that benefit their children (UN Women 2013). All these particulars seem to suggest that it would be a good idea to invest in Aliadas en Cadena. However, the fact remains that we do not know the Workshop's full impact, nor do we know what the return on Aliadas investment is; and although we know the ICT Workshop Centers are self-sustained through training fees and recruiting fees without comparing the Workshop's return on investment to the return of that same amount of money in programs that seek similar results we cannot know how cost-efficient Aliadas en Cadenas Workshops are.

RCT and Conclusion

I propose Aliadas en Cadena sets up a Randomized Control Trial. Currently, admission to Aliadas en Cadena's ICT Workshop is based on certain qualifying characteristics such as age, education, and income and given the limited amount of computers a first come, first served basis. For the RCT the admitted will not be chosen on a first come, first served basis instead they will be chosen randomly from the pool of women who have qualified. The women who are selected to participate in Aliadas Workshop will be the treatment group. The control group will be constituted of the remaining women who qualified for Aliadas Workshop but were not randomly selected. We would start our evaluation with a survey given before the treatment—the training—that would serve as a base line survey, in order to provide an information base against which to monitor and assess progress. After we would carry out surveys every two years. The surveys would pose questions on the women's monthly salary and earnings; years employed in the formal sector; number of children; age and level of education of children; episodes of domestic violence; and child mortality and morbidity. It should be noted that there will be a self-selection bias in the RCT, given that women have to apply to the program to be randomly selected; the presence of a selection-bias means that the results of this study are conditional on women choosing to participate in the Workshops.

Through the information obtained from the study we could learn the effect of the ICT Workshop on women's formal sector employment participation rate; economic security; fertility rates; incidence of domestic violence; family health; and generational improvements in child education. After obtaining this information we should gain access to Aliadas financials and determine what the average cost per women enrolled is, noting that as more women are enrolled and go through the program the cost per women enrolled decreases as sunk costs are shared by

more people. Following this step we can compare the average cost per beneficiary to the average income change of the treatment group minus the income change of the control group to determine the return on the investment made by Aliadas. To determine the cost efficiency of investing in Aliadas Workshop we should compare its return on investment to the return on investment of similar NGOs. When evaluating cost efficiency we must keep in mind that economic returns might be underestimated because there might be long term generational economic benefits resulting from an increase in education and a decrease in child mortality and morbidity that are not accounted for. Additionally, we must recognize the importance of benefits that cannot be evaluated economically but are as important, such as an increase in equality.

Having this quantitative information would be very useful in making our decision to donate or not to donate to Aliadas. However, the lack of quantitative data should not deter people from donating to Aliadas. As Fukida-Parr explains in relation to the MDGs: Measurability has led to the choosing of targets and goals based on the ability to quantify progress, and the availability of data, rather than the importance to human development (Fukida-Parr et al, 2013, p. 23). In the case of choosing an organization to donate to so too the lack of quantitative data can discourage investments in programs that anecdotal accounts have shown to be beneficial to some aspect of human development. Ultimately, considering that “gender equality is a core development objective in its own right and greater gender equality can enhance productivity, improve development outcomes for the next generation, and make institutions more representative” (World Bank 2012), I would choose to donate to Aliadas program today with the condition that they must use the money to pursue a RCT in the near future.

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An intervention in Colombia, combined with a randomized experiment, gives us an almost unique opportunity to offer reliable evidence on the value of training in developing countries. The program “Jóvenes en Acción” (which translates as Youth in Action) was introduced between 2001 and 2005 and provided 3 months of in-classroom training and 3 months of on-the-job training to young people between the ages of 18 and 25 in the two lowest socio-economic strata of the population. Training institutions in the seven largest cities of the country chose the courses to be taught as part of the program and received applications. Each institution was then asked to select more individuals than they had capacity for. Subsequently, the program randomly offered training to as many people as there were slots, among the individuals initially chosen by the training institutions. The remaining youths attempt to capture the process of trainee selection as it would take place in practice, rather than force the training institutions to train individuals they would otherwise not choose to train.

Comparisons between those offered and not offered training show that both women and men offered training do better in the labor market. The comparisons between individuals offered and not offered training are known as intention-to-treat (ITT) effects. In the case of “Jóvenes en Acción,” the intention-to-treat effects are likely to be very close to the average effects of training because there is

close to full compliance. In particular, the probability of receiving training is about 0.96 higher for those who were initially offered training relative to those who were not. Few individuals who are not initially offered a slot in a course are eventually trained, and even fewer of those individuals who were offered a slot turn down the opportunity to train.

Intention-to-treat effects show that women offered training are more likely to be employed and work more days and longer hours. In particular, being offered training increases paid employment by about 14% and increases days and hours worked by about 11%. The monthly wage and salary earnings of women offered training are about 30,000 Colombian pesos (US\$15) or 18% higher than those of women not offered training. Moreover, the likelihood of being employed in jobs that offer non-wage benefits and of having a written contract is 0.05 higher for women offered training. In fact, the gains from training seem largely linked to employment in the formal sector, as wage and salary earnings gains after training are only linked to those in the formal sector but not for informal sector workers. Men also benefit from being offered training, but the effects for men are more limited. The monthly wage and salary earnings of men offered training are 22,600 Colombian pesos or 8% higher than the salaries of those not offered training. Training offers also double the likelihood of getting a formal sector job and a job with a written contract for men. Also, as for women, wage and salary earnings gains after training are due to earnings increases for those employed in the formal sector.

