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## Can skills training increase employment for young women? The Case of Liberia

This paper summarizes rigorous impact evaluation results from the Economic Empowerment of Adolescent Girls Project (EPAG) in Liberia and presents long-term project results gathered in an end-line survey.

## THE LIBERIAN CONTEXT

Youth unemployment and youth exclusion are among the main obstacles to development in Liberia, and gender and youth are positioned prominently in the Government of Liberia’s poverty reduction agenda. The country has a very young population—nearly 60% of the population is under the age of 24 —many of whom grew up during the Liberian conflict (1989 to 2003).<sup>i</sup> There are few opportunities to enter in wage employment; most of Liberia’s youth earn income on a day-to-day basis by trading on local markets or as day laborers in precarious conditions. More than a quarter of young people are unemployed (Table 1). Youth are also often excluded from key decisions affecting their lives, often leading to disparities in health, education and income.

**Table 1: Unemployment Rate in Liberia, by Age and Sex<sup>ii</sup>**

	Male	Female	Total
Total Unemployment Rate (Age 15+)	15%	26%	21%
Adult Unemployment Rate (Age 35+)	10%	20%	15%
Youth Unemployment Rate (Age 15-34)	22%	30%	27%

The situation of young women is particularly challenging. Gender-based vulnerabilities are severe in Liberia; more than 30% of 15 to 24 year-old females have experienced physical violence, and in 2007 rape was the most commonly reported crime.<sup>iii</sup> Nearly 40% of girls age 15 to 19 are not in school and cannot read or write.<sup>iv</sup> Sex and motherhood begin when girls are still young; more than 70% of 15 to 19 year-olds have had sex, and more than 30% have been pregnant or have a child.<sup>v</sup>

Youth unemployment is approximately 8 percentage points higher among young women than young men (Table 1). Many young women are economically active, but they face obstacles when it

comes to finding and keeping jobs or starting businesses. A Girls’ Vulnerability Assessment in 2008 found that young women’s livelihoods are threatened on multiple accounts— including lack of productive skills, limited contacts to local business networks, sexual harassment from employers, opposition from husbands and boyfriends, lack of business start-up capital, and a high burden of domestic and family responsibilities.<sup>vi</sup>

*"I am satisfied with the training because the training provided me with new skills and knowledge which will be with me until I die. ... I am now somebody with knowledge, value and skills."*

*—EPAG Graduate*

In 2008 the World Bank launched the Adolescent Girls Initiative (AGI) to help promote young women’s transition to effective employment. The project has been piloted in eight low-income countries—including some of the toughest environments for girls. Each intervention is tailored to the country context, and includes an impact evaluation to build the evidence base to help adolescent girls and young women succeed in the labor market.<sup>vii</sup> The first AGI pilot—the Economic Empowerment of Adolescent Girls and Young Women (EPAG) project—was launched in Liberia in March, 2010. This paper features results from the impact evaluation, showing that EPAG has been very successful in achieving its primary objectives— increasing employment and earnings among young women. The magnitude of the results is impressive when compared to findings from other youth training projects in developing countries, and end-line data from more than one year after the project completion shows that EPAG’s effects are long-lasting.

## THE EPAG PROJECT

The project's pilot phase was implemented in two rounds and included six-months of classroom training followed by six-months of placement and support (including micro-enterprise advisory services and internship and job placement assistance). The aim of the project was to increase wage and self-employment for young women in Liberia. 70% of girls were trained in **business development skills** (BDS)<sup>viii</sup> and 30% in **job skills** (JS)<sup>ix</sup> targeted to sectors with high demand for workers.<sup>x</sup> The JS training primarily focused on wage employment, but also included a short module on self-employment basics in view of the fact that opportunities for wage employment are very limited in the Liberian labor market. All participants receive **life skills** training specifically designed for Liberian girls. In addition, trainees receive small stipends contingent upon classroom attendance and are assisted in opening savings accounts at local banks. Girls who complete the training are awarded a small completion bonus (\$20 USD).

EPAG implementation is led by the Liberian Ministry of Gender and Development (MoGD) with a team of service providers. The EPAG project also includes a capacity-building component for the Ministry of Gender and Development that has resulted in a newly created Adolescent Girls Unit to help mainstream programming and policies sensitive to the needs of adolescent girls and young women in Liberia.

EPAG was originally targeted to young women who were i) between age 16 and 24; ii) possessed basic literacy and numeracy skills; iii) were not in school (although night school was okay); and iv) resided in one of nine target communities in and around Monrovia and Kakata City. Community mobilization campaigns began in September 2009 and trainee recruitment took place from December 2009 through January 2010 in all nine target communities. Recruitment—particularly for younger girls who were both

not in school and literate—proved challenging and the age limit was raised to 27. EPAG originally recruited 2106 trainees.<sup>xi</sup>

EPAG achieved remarkable project participation. The classroom training was held from March through August, during which the project achieved a 95% retention rate (far higher than similar projects in Liberia and elsewhere) and an average attendance rate of 90%. Anecdotally the high participation is attributed to EPAG's innovative design elements (see box). In qualitative focus groups, the trainees credited the stipend and childcare as features that facilitated their full participation. As one trainee commented, "The [childcare] service made it difficult to have any excuse for missing class".<sup>xii</sup>

### Innovative Design Elements

- 1) EPAG is designed around girls' needs: service providers hold morning and afternoon sessions to accommodate participants' busy schedules; trainings are held in the communities where the girls reside; and every site offers free childcare.
- 2) Participation is incentivized creatively through attendance prizes, contests, business plan competitions, etc.
- 3) Girls receive support throughout the program from volunteer EPAG coaches who attend the classroom training and follow-up with girls in their communities during the placement phase. Girls are also organized into peer groups of EPAG girls for social and learning support.
- 4) The M&E framework includes frequent and unannounced visits to ensure that service providers maintain a high-quality learning environment.
- 5) Performance bonuses are awarded to training providers that successfully place their graduates in jobs or micro-enterprises.

# THE IMPACT EVALUATION

The EPAG impact evaluation employed a randomized pipeline research design in which trainees were randomly assigned to receive training in either the first round (March 2010 to February 2011) or second round (July 2011 to June 2012). 1273 trainees were randomly assigned to the treatment group and 769 to the control (Figure 1).

This paper summarizes rigorous evaluation results showing the impact of the project on the treatment group (round 1 trainees) as compared to a statistically similar control group (round 2 trainees).<sup>xiii</sup> Impacts are estimated using a difference-in-difference regression model. Outcomes are measured by a baseline survey completed in March, 2010 and a midline survey completed in May, 2011, six months after the treatment group (round 1 trainees) completed the classroom training (Figure 2).

This paper also presents results on longer-term project impacts gathered in an end-line survey that was completed in July, 2012. By this time, one year and four months had passed since the round 1 trainees (the treatment group) completed the training, and six months had passed since round 2 trainees (the control group) completed the classroom training. The end-line survey therefore does not include a comparison group; rather it presents descriptive statistics of longer-term outcomes among both round 1 and round 2 cohorts that are meant to complement the more robust impact evaluation results. Together, the midline results and the end-line descriptive statistics are presented in the following sections.<sup>xiv</sup>

Figure 1: Summary of Random Assignment Process

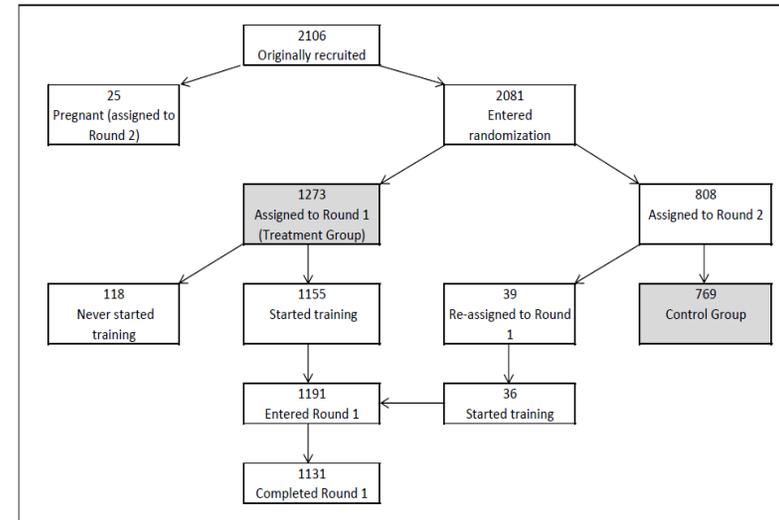
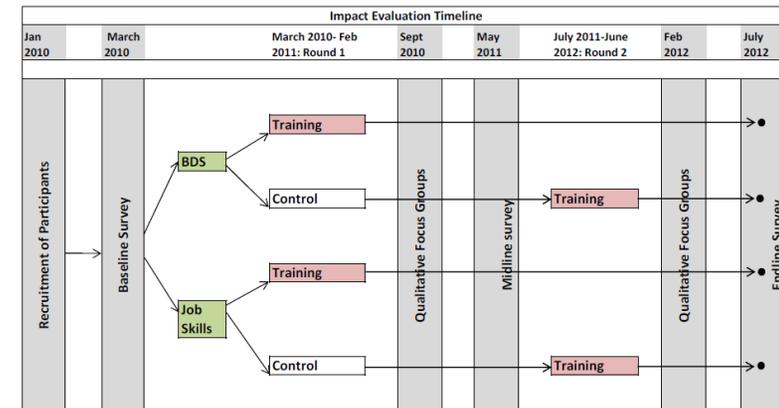


Figure 2: EPAG Evaluation Timetable



## THE FINDINGS

### Did EPAG improve young women's economic well-being?

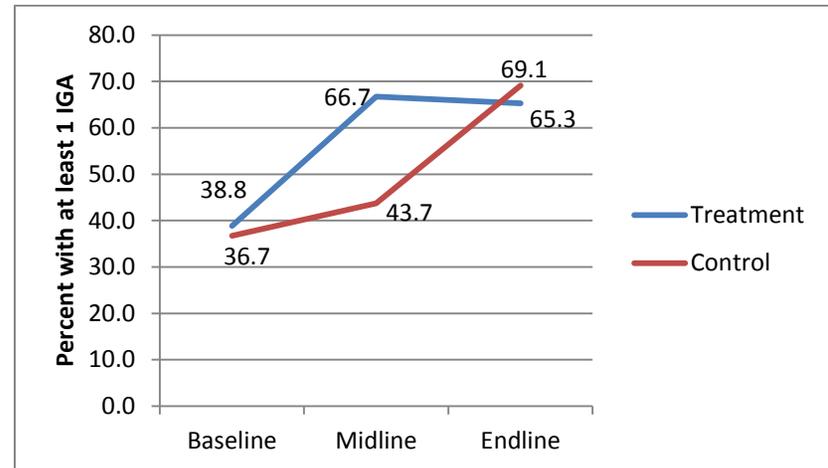
The project led to a 47% increase in employment among trainees, compared to those in the control group. At the baseline, the treatment and control groups were approximately equal: about 38% of young women in both groups reported being engaged in at least one income-generating activity.<sup>xv</sup> Both groups improved by the midline, but the change was significantly larger among the treatment group. The project led to an 18 percentage point increase in the likelihood of working, which is equivalent to a 47% increase from the average baseline level of 38%.

*My favorite part of the training] is painting, because it is strange to see young women painting in Liberia."*

*—EPAG Graduate*

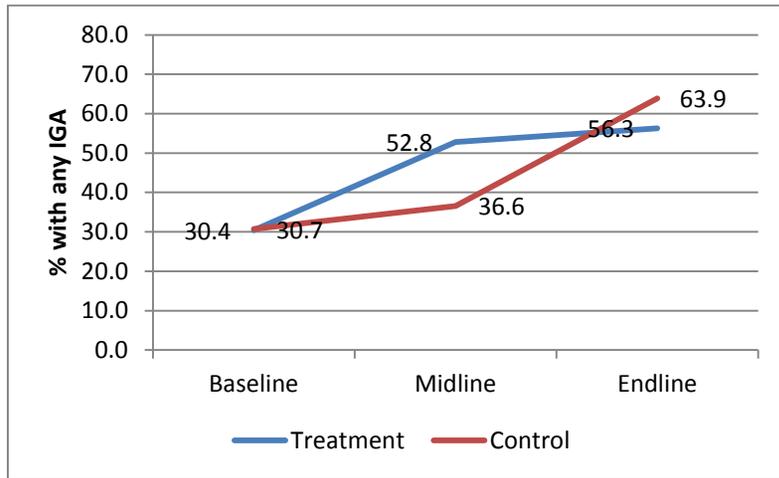
EPAG's economic impact appears to be long-lasting. Among round 1 trainees (the treatment group), end-line survey data showed only a very slight decline (from 67% to 65%) in the likelihood of working over this period. Meanwhile, end-line data confirmed that employment among the control group (who by this point had themselves completed the project) caught up with, and even slightly surpassed, that of the treatment group (Figure 3).

Figure 3: Likelihood of Working

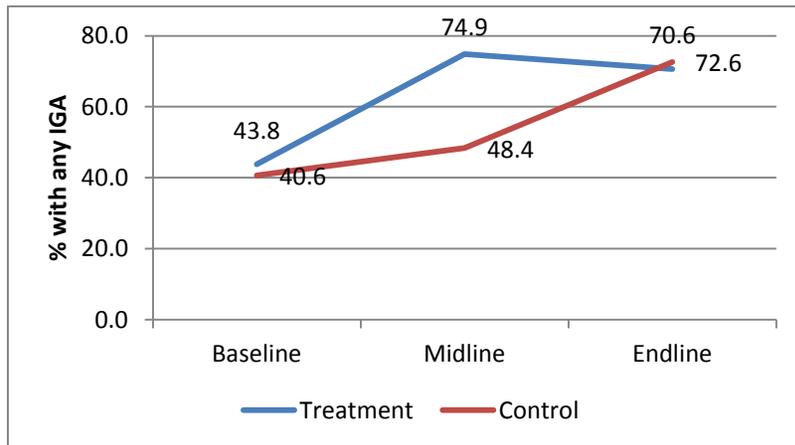


The positive employment outcome was stronger among the business skills trainees. On average, the probability that participants in the BDS track found employment increased twice as much as among those in the JS track. This most likely reflects the structure of the labor market in Liberia; the vast majority of employment is in the informal sector, and in own-account activities. By the end-line, just over 70% of business skills graduates were engaged in at least one income-generating activity (wage or self-employment), compared to just under 60% of job skills graduates (Figures 4 and 5).

**Figure 4: Employment Rates among Job Skills (JS) Trainees**



**Figure 5: Employment Rates among Business Development Skills (BDS) Trainees**



**Among those with any employment, most are self-employed regardless of whether they were trained in JS or BDS.** The training worked, in the sense that JS trainees are more likely to be wage-employed and BDS trainees are more likely to open their own businesses. Still, fully half (49% at midline) of job skills trainees who were employed were self-employed. By the end-line even more working job skills graduates were self-employed (65% of the pooled treatment and control groups). This data reflects the challenges of entering into and maintaining long-term wage employment in Liberia, and supports the project decision to offer basic business skills to job skills trainees.

**Most self-employed EPAG graduates are engaged in petty trade; most wage employed graduates work in a shop, restaurant or hotel** (Figure 6). The Business Development Skills curriculum was designed to support micro-entrepreneurship by teaching entrepreneurship principles, market analysis, business management, customer service, money management and record-keeping. As shown, there is little movement into common female professions that tend to lack market demand in Liberia, such as beauticians, tailors and soap makers. The job skills track emphasized hospitality and professional cleaning/waste management skills (together accounting for 77% of job skills trainees in round 1 and 65% in round 2), so it is not surprising that most job skills graduates are working in shops, restaurants or hotels (Figure 7). Other job skill trade areas included house and office painting, professional driving, office and computer skills and security guard services.

Figure 6: Self-Employment, by Type

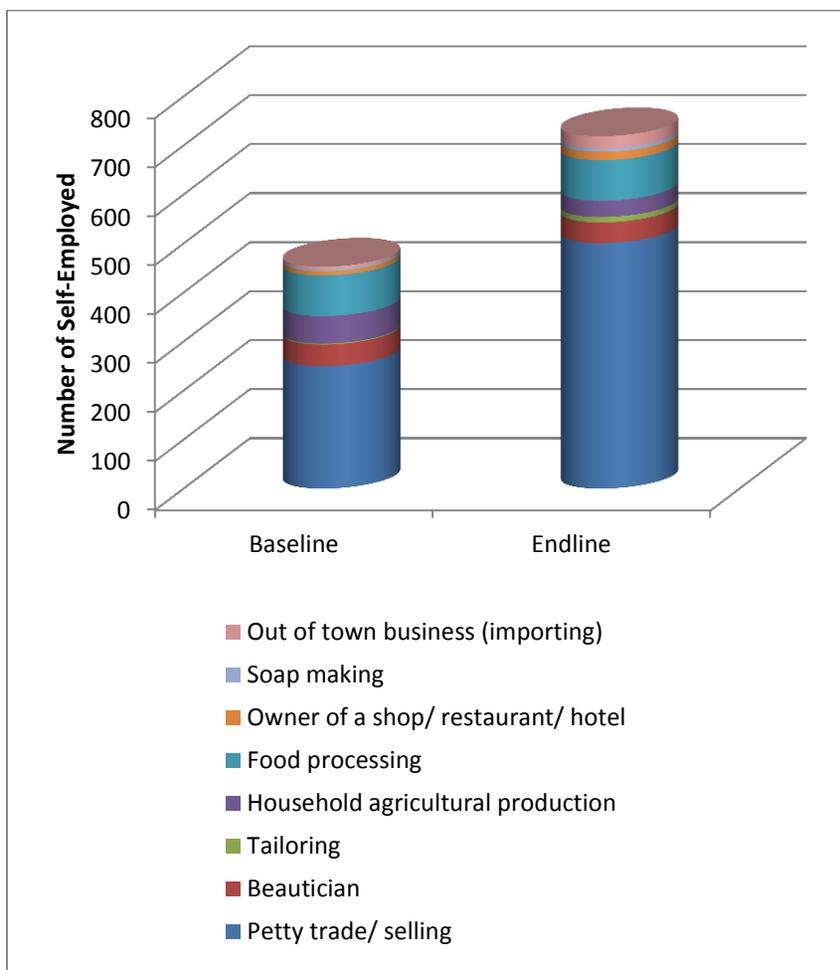
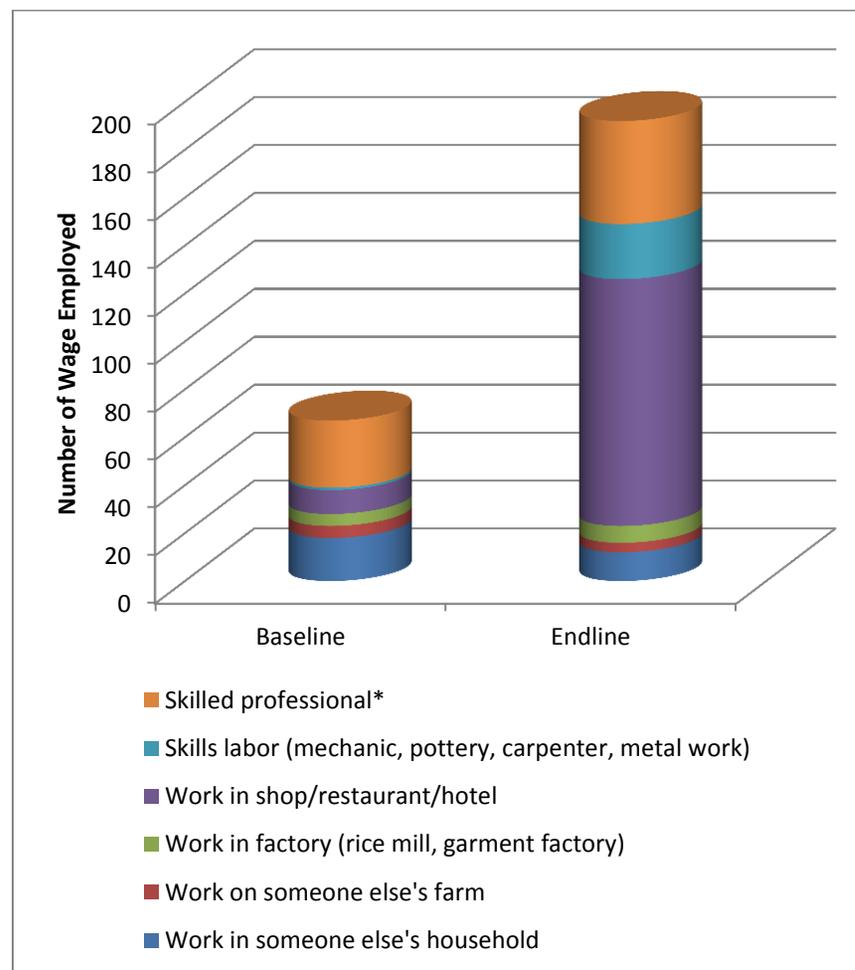


Figure 7: Wage Employment, by Type



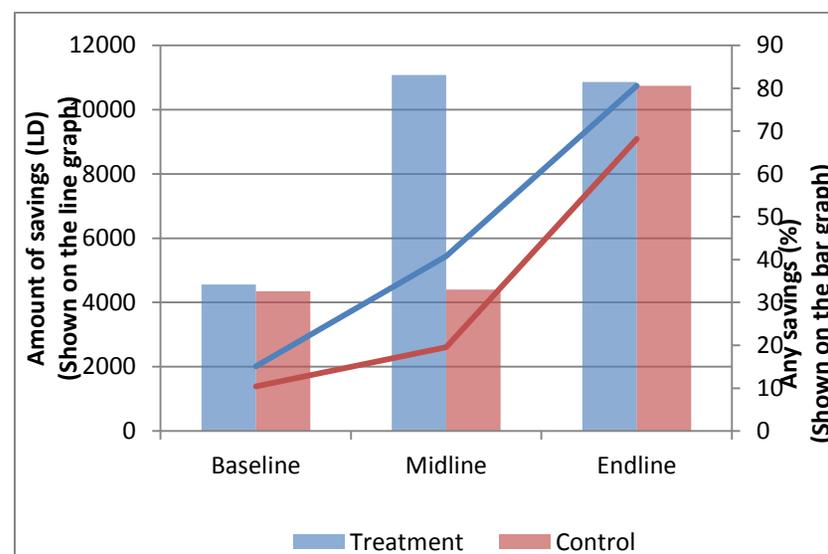
\*"Skilled professional" includes "Midwife", "Educator", "Secretary/clerk/cashier", "Religious worker", "Bus conductor", "Caretaker", "Community worker", "Community clinic", "Community work", "Conductress", "Field agent", "Funeral home worker", "Gas pump attendant", "Jury", "Matron at school", "NGO", "Operating drug store", "Police officer", "Professional cleaner", "Receptionist", and "Teaching".

The EPAG project increased average weekly income by 80%, relative to the control group.<sup>xvi</sup> Between baseline and midline, the treatment group's average weekly earnings increased by 565 LD (approximately \$8 USD) more than the control group's earnings. Given that the commonly accepted minimum wage in Liberia is 25 cents per hour, an additional \$8 USD per week is a large increase. EPAG improved earnings through two channels: primarily, by bringing more people into employment, and secondly by increasing the productivity of those who were already engaged in income-generating activities. These effects are significant, both statistically and economically, and much larger in magnitude compared to other vocational training projects that have been rigorously evaluated.

**EPAG significantly increased girls' savings.** At midline, the treatment group was nearly 50 percentage points more likely to have savings than the control group, and were saving on average LD \$2500 (nearly \$35 USD) more than the control group (Figure 8). The increase in savings amounted to more than the trainees earned through the project's completion bonus of \$20 USD. In addition to saving in banks, the treatment group also reported having increased savings in informal savings clubs.

*"I used to braid hair and just eat the money without thinking about the future, but now I consider saving as being important for the fact that saving helps me to have some money when things become tough."*  
*—EPAG Graduate*

Figure 8: Impacts on Savings



**Savings effects were maintained at the end-line.** Compared to midline, the treatment group roughly maintained the same percentage of participants with any savings at end-line, and their amount of average savings continued to increase (to approximately 82 percent). After the control group completed the project the share of the group with any savings increased to nearly 81 percent, and their average amount of savings rose to more than \$9,000 LD (\$129 USD). Importantly, between baseline and end-line young women increasingly report that their savings are coming from their own economic activities (increases from about 68 percent to 72 percent). Fewer young women report that their savings comes from parents/guardians (falls from approximately 22 percent to 11 percent) or transfers from others (decreases from about 21 percent to roughly 12 percent).

EPAG graduates were more likely to have accessed credit. EPAG graduates were also twice as likely as the control group to have outstanding loans (6 percent versus 3 percent), and have loans from formal lenders (5 percent versus 2 percent),<sup>xvii</sup> although the overall rate of obtaining credit remains extremely low.

### *Did EPAG empower participants?*

*"Before I came to the training I did not have any control over my life. I could not make any decision, my boyfriend was always making decision for me but after the training I have built self confidence in myself. I can make my own decision for my future."*

*—EPAG Graduate*

Because baseline levels were already quite high, only small (albeit significant) improvements were found in girls' control over their own resources. 80 percent of respondents at baseline said they had money of their own that they controlled, with a seven percentage point increase for the treatment group (relative to control) at midline. Similarly, at baseline 80 percent of those engaged in income-generating activities said that they controlled the money they earned. The midline results indicated that among the treatment group, this had increased by roughly eight percentage points.

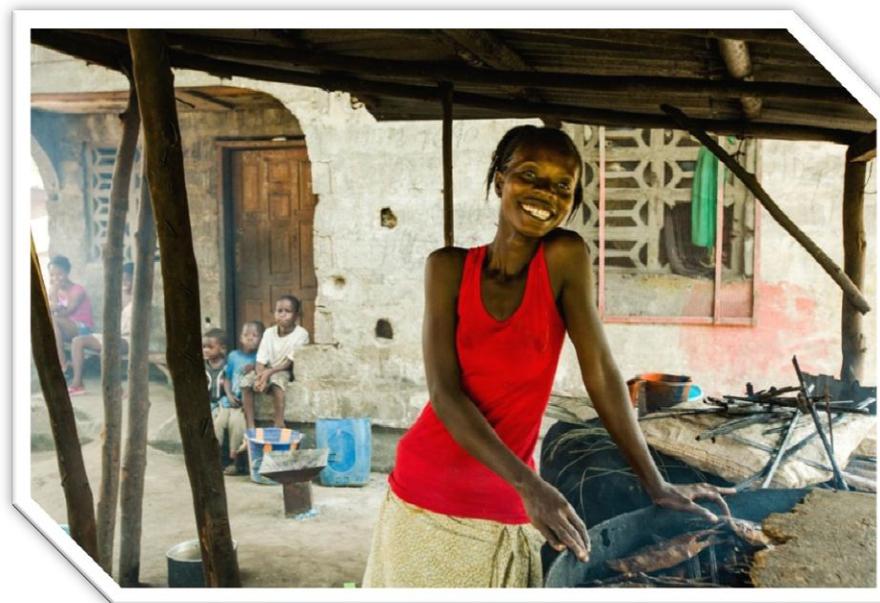
EPAG graduates report that they worry less than those in the control group. They are less likely to worry about their jobs or incomes or that they won't be able to pay for basic necessities, and those with partners are less worried about their relationships breaking up. The impact on subjective well-being, as measured by a series of questions about the respondent's satisfaction with various dimensions on her life, indicate that EPAG was most successful in improving the degree of satisfaction with one's job or business, in line with the project's primary objective. At the end-line, respondents' satisfaction with their jobs and incomes continued to rise, although their job worries increased slightly from the midline.



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**EPAG does not appear to have an effect on young women’s experiences of violence.** The baseline level of violence is quite high—roughly 33 percent of respondents say that arguments with partners result in physical or sexual abuse, and there is no change at end-line. There appears to be an increase over time in the frequency of arguments with husbands or partners, but these arguments are not accompanied by increased physical or sexual violence. An increase in the frequency of arguments may be problematic, or it could be indicative of the empowerment process (young women could feel more confident to express their views and contradict their partners as they become more empowered). More research is needed to understand how to interpret these findings and to learn how training projects can most effectively influence violence outcomes.

**Two measures of non-cognitive skills—self-regulation and a task-oriented measure of self-efficacy—were administered at baseline and midline and showed positive change.** Self-regulation<sup>xviii</sup> is thought to be very important for success in the labor market; it is the ability to formulate a goal, make a plan, stay on course despite setbacks, modulate intense emotions, and so on. EPAG had a small (about a tenth of a standard deviation), but statistically significant effect on young women’s ability to self-regulate.<sup>xix</sup> Task-oriented self-efficacy—that is, belief in one’s own ability to succeed in specific situations—is likewise thought to be important for labor market outcomes. The EPAG evaluation calculated an “entrepreneurial score” based on questions asking how well the respondent believes she could perform a series of six tasks related to starting or running a business. There were large and significant effects among EPAG graduates compared to the control group; the aggregate measure of entrepreneurial ability increased by roughly eight percentage points, equivalent to a quarter of a standard deviation.



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**At the midline, EPAG graduates were more confident than the young women who had not yet participated in the project.** Questions on attitudes and self-confidence were only asked during the midline survey (hence no panel analysis is possible). EPAG graduates reported a more positive attitude: they felt more in control and more comfortable, and they had greater confidence in their own business abilities as well as in their personal and social lives. They were also more confident than the control group in their personal relationships with spouses and partners. Both treatment and control group respondents reported equally high confidence in their ability to return to school “should [she] decide to do so.”

These quantitative findings on empowerment complement qualitative results reflecting EPAG graduates' soaring aspirations and visions for the future. Focus groups discussions were conducted after the close of the classroom training phase, sampling approximately 25 percent of trainees, as well as a smaller sample of trainers, coaches, parents, husbands/boyfriends and community members. Overall, the focus group discussions provide qualitative evidence of many positive changes among the EPAG girls, indicating both their social and economic empowerment. For example, they reported being more independent and self-confident, and having improved their relationships to others and their position in the household. Trainees also cited that they now use their time to engage in economic activities instead of hanging around in video clubs or going out with men. The quantitative data on time use supports this claim, indicating that at the end-line EPAG graduates spend about 12 more hours on working for pay than they did before the project began.

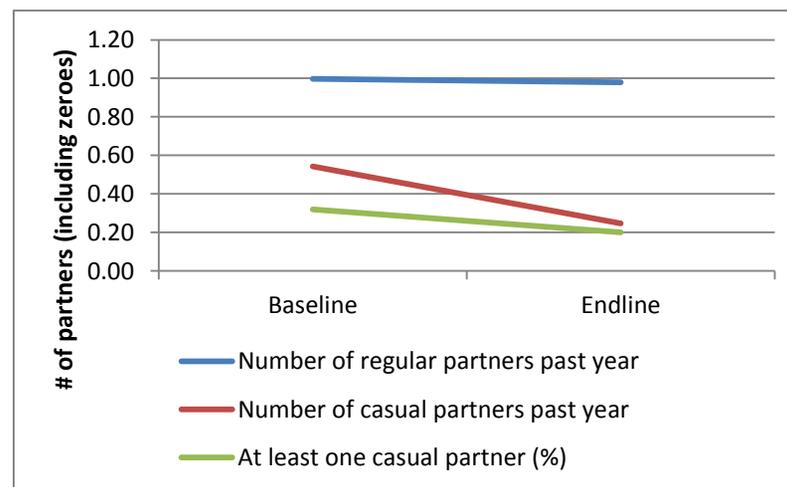
*"I have better communication with my brother because before, when our mother is talking about her business and I tried to talk, he would say: 'Have you done business before?' But since I entered EPAG project when he hears me talk about business he can enjoy it and even this time he shares ideas with me on the line of business."*

*—EPAG Graduate*

## Did EPAG affect sexual behaviors or fertility?

The EPAG project did not affect young women's sexual behaviors. No impacts were found on the number of sexual partners or the decision to use a condom. On average in both the treatment and control groups, these young women have one regular partner, and report that they use condoms about half the time (much higher than among similar age groups in nationally representative surveys such as DHS). However, by the end-line there are some reductions in the number of casual sexual partners and increases in condom use with casual partners (Figure 9). Evidence from qualitative focus group discussions and anecdotes from project implementers suggest that the survey may underestimate changes in sexual behaviors (particularly reductions in sexual partners). This could be due to imperfections in the survey's measurement tools, or it is also possible that such behavior change may only be revealed over a multi-year horizon.

Figure 9: Self-reported Number of Regular and Casual Sexual Partners, and Percent Reporting at Least One Casual Partner



**The project did not lead to any changes in desired or actual fertility.**

Three outcomes were used to explore fertility that, when taken together, indicate no net impact on actual fertility: a weak reduction in the likelihood of having any children, a significant reduction in the number of children, and a significant increase in pregnancy among the treated. These results are consistent with the treatment group simply delaying pregnancy during their participation in the project (which may demonstrate empowerment over the timing of pregnancy). Among both the control and treatment groups, respondents reported wanting roughly 3.5 children at baseline, this remains unchanged at end-line. It is possible that the evaluation timeframe was too short to see changes in fertility.

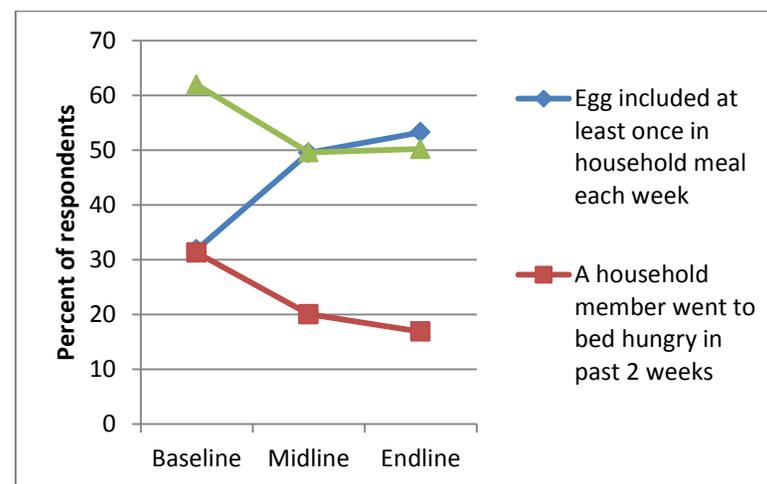
***Does investing in young women lead to economic gains for their families?***

**There is no consistent or strong evidence that EPAG led to changes in household size or significant asset purchases or sales by households.** The EPAG evaluation hypothesized that successful graduates might support additional non-resident family members in their households (thereby increasing average household size), however no evidence was found to support this. Across fifteen types of assets, from land to poultry to furniture and electronics, there were significant effects on only two: a three percentage point decrease in the share of households that report owning any shops/stalls (from the low base of 6%) and a three percentage-point increase in ownership of beds and/or mattresses (from the very high base of 92%). This is consistent with the previous finding that asset ownership for the participants themselves did not change.

**EPAG significantly improved household food security and dietary composition.** Household food security was measured using two methods: dietary frequency of high-value protein-rich foods, and two subjective questions on food shortages.<sup>xx</sup> In three out of four of the dietary frequency questions and on both of the food shortage questions, the treatment

groups' dietary situation improved as a result of the project. Weekly consumption of fish and meat rose significantly by three percentage points in treatment households (from a high baseline value of 84% for meat/chicken and 90% for fish), and weekly consumption of eggs (a relatively scarce source of protein consumed weekly in only 31% of households at baseline) rose more weakly, but still significantly, by almost four percentage points (Figure 10). Household heads report worrying less about insufficiency of household food supplies, and the reported incidence of household members going to bed hungry also decreased in treatment households relative to control. Improvements in food security and dietary composition continued between midline and end-line.

Figure 10: Food Security



**EPAG did not impact the attitudes of household heads toward the economic or social activities of young women living in their households (including suitable age of marriage), but did have a small significant impact on their attitudes toward gender norms regarding domestic duties.** From a baseline share of 12%, there was a 6 percentage point

impact in the likelihood of respondents reporting that both men and women should be responsible for washing, cooking, and cleaning. Similarly, from a baseline share of 16%, there was a 4 percentage point increase in responses of “both” for the task of feeding and bathing children. When asked about specific activities in relation to the young women in their household, the household heads’ responses did not change over time, but when asked about sharing of household duties in theory (not in relation to their particular household), there was a significant difference by treatment group. Given that the EPAG participants themselves do not report any change in the amount of time spent on domestic work, there is no evidence that these shifting norms impacted the division of labor in practice.

### ***Who benefitted most and least from EPAG?***

**Among the pool of EPAG participants, the project was most effective for girls in the middle of the wealth distribution or with moderate education.<sup>xxi</sup>** Although significant and positive impacts are seen across the entire wealth distribution, the project was significantly more effective among participants in the middle wealth quintiles than among the very poorest and very wealthiest. There is no discernible impact among those with no education<sup>xxii</sup>, and the greatest impact is found among those who have completed high school. These findings are not surprising in that EPAG was not designed to reach the poorest or most vulnerable. Subsequent rounds of EPAG are making design adjustments to effectively serve poorer and less educated girls outside the capital city.

**Young women’s relative success in EPAG was not influenced by their past exposure to conflict.** That is to say, the project worked as well for trainees who reported being affected by conflict as for those who did not. The vast majority of EPAG trainees did report being affected by the Liberian conflict; 78% said that they were displaced and 74% said there was fighting in the area where they lived. This means that EPAG is an appropriate intervention

for young women in a post-conflict setting, regardless of whether or not they were personally affected by past events.

## **FROM PROJECT RESULTS TO POLICIES**

**The EPAG evaluation provides strong evidence that skills training can be an effective policy option for increasing employment among young women in Liberia.** The EPAG project increased employment by 47%—a greater increase than has typically been found for similar projects. Recent reviews suggest that training projects increase the likelihood of employment by 6 to 12%, and in rare cases as much as 30%, but that most projects are not significantly effective, particularly in the absence of robust private employment growth.<sup>xxiii</sup>



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### Cost-Benefit Analysis of the EPAG Pilot

Type of training	Cost per participant (USD)	Avg. monthly income increase (USD)	# Years required to cover costs
Job skills	1650	11*	12
Business	1350	44	3

Assumptions: In addition to the assumption of persistence of earnings gains, other assumptions include income accruing from month 7, no discounting, and an exchange rate of 70 LD= 1USD. With an annual discount rate of 5%, the Business Skills training costs are still recouped within 3 years while the Job Skills training costs would take 17 to 20 years to recover.

\*Note: the increase in earnings for Job Skills participants was not statistically significant at midline.

**The EPAG experience validates the importance of delivering business skills training along with job and life skills training in contexts where wage employment is limited.** The positive employment results are driven by the business skills trainees. In contexts like Liberia where opportunities for wage employment are limited, it is important for projects to provide basic entrepreneurship skills to all participants and to have a realistic assumption of how many trainees can be placed in wage employment.

**EPAG demonstrates the importance of developing a holistic understanding of the profile and needs of participants in employment and empowerment projects.** EPAG's design was informed by assessments of the local economic and social conditions. Based on these assessments, the project made informed decisions about the trainee profiles, and was able to design services that were tailored to meet the needs of these participants (e.g. offering childcare, stipends, etc.). EPAG has also continued to fine-tune the design and delivery of services on a continuous learning-by-doing basis, always with the needs of trainees at the forefront of project decision-making.

**EPAG's effects are long-lasting.** A frequent limitation of impact evaluations is that they track only very short-term outcomes. This evaluation tracks outcomes over 30 months, and shows that the positive project effects persist at the same or higher levels.

**Project costs during the pilot were approximately \$1350 per girl for business skills training and \$1650 per girl for job skills training.** This per-participant cost reflects the holistic approach of the project and the costs associated with starting a project from scratch. All categories of project expenses are included (contractual services, personnel, equipment, transportation, overhead, etc.). The cost also reflects the persistent inflation in the Liberian economy and the high cost of goods and services in this context.

**The expected returns of the business skills training are compelling.** Under realistic assumptions, it will take three years for business skills participants to increase their earnings in an amount equal to the original investment.<sup>xxiv</sup> For the JS training, given the higher costs and lower benefits, it would take approximately 12 years to recoup the training costs. The much lower return on investment for the job skills training is not surprising given the limited opportunities for wage employment in Liberia. EPAG is currently making design changes to maximize employment outcomes for future job skills trainees.<sup>xxv</sup> The project has also further reduced the percentage of girls in the job skills training track.

*"With the skills I got I am sure that if I apply for work in my area of training I will get the job, but if I do not find a job I can try to start my own business with the business training I got." --EPAG Graduate*

**Compared to similar skills training projects that have been evaluated to-date, EPAG’s impacts are greater and the costs are similar.** For example, compared to the *Jóvenes* projects in Latin America, EPAG has had greater impacts on employment and incomes for a similar price (participant costs in *Jóvenes* projects range from about \$700 to \$2,000). While the costs of public works or cash transfer projects are typically much lower than comprehensive skills training, the impact of these interventions on long-term earnings and employment has not proven comparable to EPAG.

**These cost estimates are likely reflecting an upper bound, and EPAG’s costs are expected to decrease in future rounds of training.** EPAG service providers have become more efficient and more effective in implementing the project as they have gained experience. Furthermore, there are significant costs associated with project start-up that become less resource intensive in later phases of the project (e.g. curriculum design, community assessments, capacity-building for service providers, etc.). Finally, several key design changes are already making Round 3 more cost-effective, including nationalizing the project team and condensing the classroom training timetable (from six months to four). EPAG will continue to improve its cost-effectiveness, while maintaining the high-quality services.

**The EPAG project should be promoted within the broader youth development agenda in Liberia, and drawn on as a source of learning for other projects.** Supporting Liberia’s young people into healthy, productive livelihoods is a challenge that will demand multiple solutions. EPAG fills a particular policy niche in that it addresses young people’s immediate needs for income-generation, and also invests in skills needed for long-term success in the labor market. Rigorous evaluation techniques have proven that EPAG’s comprehensive skills training, together with placement and support services, can have large and long-lasting impacts. EPAG should continue to be supported as part of the portfolio of projects and policies to address youth development, and other projects should draw on EPAG’s lessons and successful strategies.

## **AREAS FOR FURTHER RESEARCH**

**Further implementation research is needed to inform EPAG design and targeting in the scale-up.** Based on the pilot success, EPAG is now gradually expanding to geographical areas outside the capital city and adjusting the project targeting to work with young and less literate girls. The project is also exploring targeting scenarios for young men and promising models for agriculture. Further implementation research and analytical work is being conducted to inform the process of going to scale and improving cost-effectiveness, without sacrificing project quality.



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**Future evaluations of comprehensive projects should disentangle the effects of the various project components.** The EPAG evaluation is not able to compare the relative impact of the technical training versus the life skills training, nor is it able to shed light on the impacts of specific project strategies, such as the EPAG coaches. There are also important questions around the intensity and duration of placement assistance that are not answered in this evaluation. Future evaluations should try to unbundle comprehensive projects in order to pin-point the most effective elements and provide cost-benefit information by project component.

**There are still many unanswered questions related to female youth empowerment and the process of transforming gender norms.** For example, further research is needed to disentangle the issues of changing gender norms in theory versus practice, and to understand whether and how short-term interventions can contribute to longer-term changes in gender relations. Additionally, better measures of female youth empowerment that are validated in the Liberian setting are needed. The empowerment measures used in this evaluation were adapted from other contexts and show limited relevance for this population. Furthermore, the lack of impact on sexual behavior and fertility in this study points to a need for further research in Liberia on the conditions under which economic empowerment may lead to reduced fertility, the drivers of change, and the length of time required for changes to manifest.

**Further research is also needed to understand whether or not investing in young women leads to economic gains for their households, and under what conditions and time horizon.** Evidence suggests that adult women tend to invest more of their income in their families, especially their children, than do men.<sup>xxvi</sup> Extrapolating from this evidence, the promise of spillovers is often cited in advocacy efforts calling for increased investment in adolescent girls. Given the short-term nature of the outcomes in this study, it is not surprising to see fewer spillover impacts. These indirect outcomes likely take longer to manifest than individual changes among the

participants themselves. Furthermore, the study looked at spillovers to households generally; future research should explore the potential benefits to the children of young mothers more explicitly.



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about the AGI please visit  
[www.worldbank.org/gender/agi](http://www.worldbank.org/gender/agi)



## Notes

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- <sup>i</sup> United Nations Population Division: <http://esa.un.org/unpd/wpp/index.htm>
- <sup>ii</sup> 2010 Liberia Labor Force Survey (LFS), cited in: World Bank Group Africa Region Human Development. 2013. "Liberia Vulnerable Youth Profile Note." Washington DC: World Bank.
- <sup>iii</sup> The Population Council and UNFPA. 2007 Demographic and Health Survey: Adolescent Dataset.
- <sup>iv</sup> Ibid.
- <sup>v</sup> Ibid.
- <sup>vi</sup> Abril, Maria Elena Ruiz. 2008. "Girls' Vulnerability Assessment." Government of Liberia-Nike Foundation-World Bank.
- <sup>vii</sup> The AGI pilots in Laos and Rwanda do not include impact evaluations.
- <sup>viii</sup> BDS includes training in entrepreneurship principles, market analysis, business management, customer service, money management, and record-keeping.
- <sup>ix</sup> When possible, the participant's track preference was honored; however, there was excess demand for the JS track so many participants were placed into BDS.
- <sup>x</sup> 1) hospitality; 2) professional cleaning / waste management; 3) office / computer skills; 4) professional house and office painting; 5) security guard services; and 6) professional driving.
- <sup>xi</sup> Additional recruitment was carried out in 2011 because the project was designed to train 2500 girls. Participants recruited in the second batch, some of whom also received additional literacy training, are not included in the impact evaluation.
- <sup>xii</sup> Exit Poll Report from Round 1. SBA and GOPA Consultants. December 2010.
- <sup>xiii</sup> The full impact evaluation results are reported in: Adoho F, S Chakravarty, DT Korkoyah, M Lundberg, and A Tasneem (2013). "The Impact of an Adolescent Girls Employment Program: The EPAG project in Liberia."
- <sup>xiv</sup> The figures reported in this paper differ slightly from those reported in the *Policy Research Working Paper* because they are based on the 1375 respondents for which there are three data points available (baseline, midline and end-line). The midline report was based on a sample of 1601 respondents for which baseline and midline data were available.
- <sup>xv</sup> An income-generating activity encompasses the full range of activities through which people earn money, e.g. wage employment (jobs), self-employment (either in a small business or through petty trade) or a combination.
- <sup>xvi</sup> Respondents reported their cumulative earnings across all income-generating activities over the past week, in addition to the value of an in-kind compensation.
- <sup>xvii</sup> "Formal" loans are those from banks, credit groups, susu, or money lenders; "informal loans" are those from parents, friends, relatives, or business partners.
- <sup>xviii</sup> Questions adapted from the Adolescent Self-Regulation Inventory, developed and validated for youth in the United States by Moilanen, 2006. The questions were revised and translated into an 11-item scale for the Liberian context.
- <sup>xix</sup> The limited impact on this measure might be explained by psychologists' lack of consensus on the extent to which self-regulation is a personality trait that tends to stabilize early in life, or something that can be learned and improved throughout adolescence and into adulthood.
- <sup>xx</sup> Adapted from USAID's FANTA questions (Coates 2007).
- <sup>xxi</sup> These findings are not indicative of the respondent's wealth or education relative to the overall population of Liberia; only their position relative to other EPAG trainees.
- <sup>xxii</sup> The estimate is large but insignificant, possibly due to the small number of respondents with no education.
- <sup>xxiii</sup> Ibararán P and D Rosas Shady. 2009. Evaluating the Impact of Job Training Programs in Latin America: Evidence from IDB funded operations. *Journal of Development Effectiveness*. Betcherman G, M Godfrey, OS Puerto, F Rother, and A Stavreska. 2007. "Global Inventory of Interventions to Support Young Workers: Synthesis Report." World Bank. Washington, D.C.
- <sup>xxiv</sup> We assume that the gains persist at the same level, which seems reasonable based on the end-line findings. The BDS training cost is recouped within 3 years even under the assumption of a 5% or 10% annual discount rate.
- <sup>xxv</sup> In Round Three, 82% of participants learn business skills and 18% study job skills.
- <sup>xxvi</sup> World Bank 2001, Hodinott 1995, Pitt 1998, Borges 2007.