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NEW INSIGHTS ON WOMEN'S EMPLOYMENT IN ETHIOPIA'S INDUSTRIAL PARKS

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KEY MESSAGES

- **Low take-up of job offers and high early turnover continue to affect employment of Ethiopia's female factory workers.** Only just over half of women who demonstrated interest in factory jobs at the Bole Lemi Industrial Park and passed an initial screening actually started a factory job. Most then left factory jobs very quickly, with ten percent of initial factory starters quitting in the first week, and altogether 30 percent of factory starters quitting within the first month. By fifteen months, just 22 percent of women in our sample were still working in the same factory job, and just six percent were working in a new factory job.
- **Despite starting factory work around the onset of the COVID-19 pandemic, the women in our sample still left factory employment primarily for voluntary reasons unrelated to COVID-19.** This is consistent with early separation being a longer-term feature of factory employment.
- **Women who voluntarily left their factory jobs reported they had received wages close to the minimum of what they were expecting.** They had also earned below what they believe to be a fair wage, and the wage they say they would accept to do similar work in the future. Thus, giving potential factory workers more information about wages before they start might alone not resolve the turnover issue. Instead, wages may need to rise to attract and retain workers.
- **Much of the COVID-related separations we observe are "voluntary", with women choosing to leave factory jobs and mainly staying at home due to personal health concerns.** Therefore, while measures to reinforce input chains and demand for factory orders remain key, immediate interventions to address workers' health and safety concerns are crucial to counter voluntary quitting in times of a public health crisis.

ABOUT THIS STUDY

A team of researchers from the World Bank's Gender Innovation Policy Initiative for Ethiopia (GIPIE) conducted a panel survey of female applicants to factory jobs at the Bole Lemi Industrial Park from February 2020 to June 2021. The purpose was to understand potential explanations for low job take-up and high turnover, as well as women's broader labor supply decisions. This study was part of the World Bank Group's analytical work program on "More, better, and more inclusive jobs: Preparing for successful industrialization in Ethiopia" (funded by the UK Foreign, Commonwealth and Development Office).

This work has been
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MOTIVATION

Ethiopia's Industrial Parks (IPs) have created a large number of job opportunities for low-skilled workers, particularly women, in recent years.¹ These jobs are a key element in the government's strategy for structural transformation and job creation for a rapidly growing labor force. However, existing research on women who receive offers of factory jobs has often found low take-up rates and high turnover, particularly in the very early stages of employment.²

NEW STUDY ON APPLICANTS TO FACTORY JOBS

Factory jobs in the Bole Lemi IP, located on the outskirts of Addis Ababa, attract an applicant pool of young women with relatively little prior factory experience. A team of GIPIE researchers conducted a study of women who presented themselves at the Bole Lemi IP and expressed interest in applying when hiring opportunities were announced in February and early March 2020. After women had passed an initial centralized screening, our enumerators invited them to participate in a voluntary baseline interview. Approximately three months later, we conducted a follow-up phone survey with the same women, to learn about their employment decisions since baseline and how their beliefs or expectations had changed since they applied for factory work.³ A year after that – approximately fifteen months after baseline – we conducted a further follow-up phone survey to understand the same women's longer-term employment trajectories during the pandemic.

Box 1 shows the key characteristics of the female applicants to Bole Lemi jobs, as interviewed at baseline. Since we focus on women who sought jobs at Bole Lemi in early 2020, our sample and findings may not generalize to the full population of women factory workers in Bole Lemi, including those who have worked there for longer; nor to future applicants, as the pool of jobseekers may change over time and with economic conditions. Nonetheless, our sample

BOX 1: WHO ARE THE POTENTIAL FACTORY WORKERS?

The potential workers in our sample are on average 22 years old and have just under 9 years of schooling. 24 percent cohabit with a partner, and 8 percent have one or more children under the age of 5. Most are not from the area, with 89 percent having migrated to Addis Ababa. Altogether, 27 percent have prior factory experience, with 15 percent having factory experience specifically at Bole Lemi (the rest had experience from other IPs, or non-IP factories). Almost half have prior experience in a wage job, while 16 percent have previously been self-employed or worked in a family business.

captures the pipeline of workers seeking factory jobs just prior to the COVID-19 pandemic, which is of prime interest for understanding current employment trends.

WHO STARTS A FACTORY JOB?

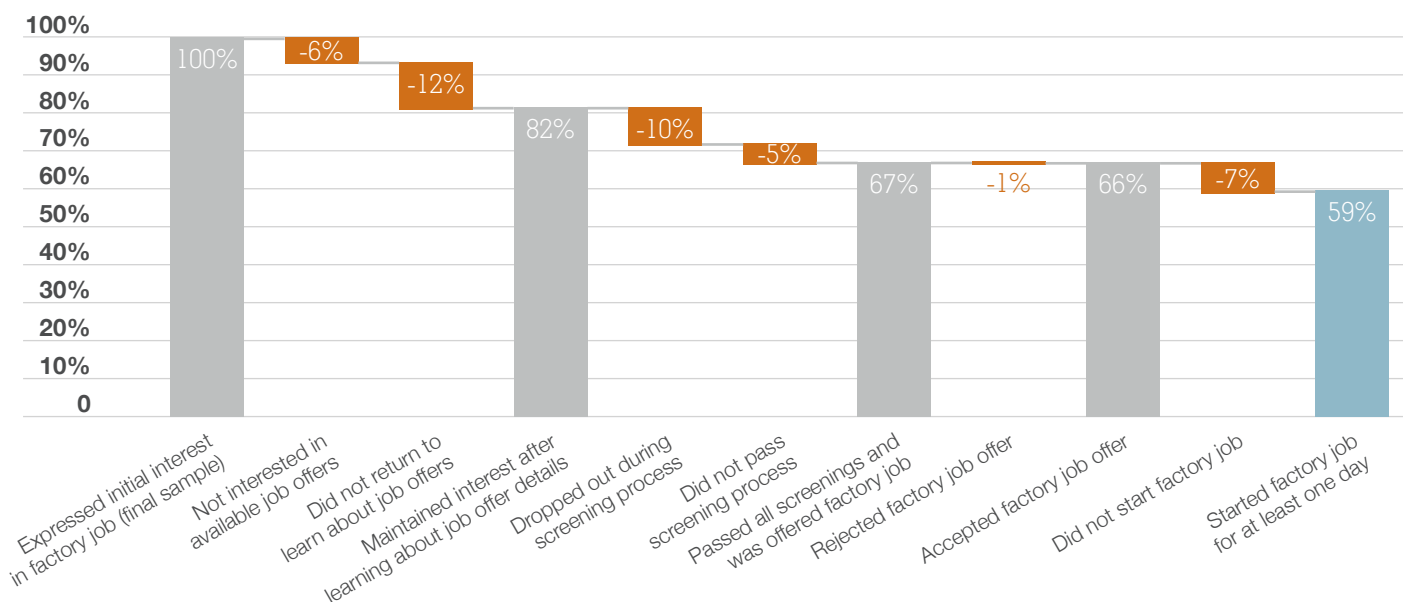
The process from arriving at Bole Lemi in response to job advertisements to actually starting a factory job is not trivial, with 41 percent of women in our sample dropping out in the initial stages. Figure 1 shows the path of respondents from the baseline survey into factory employment. Of the 564 respondents tracked after three months — all of whom had expressed interest in a factory job and passed the first screening as described above — just 59 percent had actually started work at a factory for at least one day. Even among those who had made it through the full screening process and accepted a formal job offer, 11 percent did not begin any factory work. These women represent a loss to factories in terms of the time invested in screening and preliminarily onboarding, although these women did not receive any training from the factories.

¹ Before the pandemic, 14 industrial parks across the country provided employment for about 88,000 workers (Mengistu et al., 2020).

² For example, after Blattman et al. (2018) randomly provided job offers to applicants across five Ethiopian industrial firms, they found that 10 percent of those offered a job never showed up on the first day of work, 20 percent quit in the first month, and only 32 percent were employed in any factory or commercial farm one year later, compared to 20 percent of the control group. In a similar study conducted among female applicants to factory jobs in the Hawassa Industrial Park, Abebe et al. (2019) find that only a third of the applicants remain with the firm after six months, with turnover being the highest in the first three months.

³ Overall, 94 percent of the women who participated in the baseline were tracked after three months, and 87 percent after fifteen months. Whether a woman was tracked after three months was not correlated with her observable characteristics; while women tracked after fifteen months were slightly older and more educated.

FIGURE 1: MANY OF THE WOMEN WHO ARRIVE AT BOLE LEMI DO NOT START A FACTORY JOB



Notes: Sample of 564 women who expressed interest in a factory job at baseline and were surveyed at three-month follow-up. All outcomes shown are measured at three-month follow-up.

WHY DO WORKERS LEAVE FACTORY JOBS, AND WHERE DO THEY GO?

Most women who started and worked at least one day in a factory job left within three months, primarily for voluntary reasons. Figure 2a shows the outcomes of the 333 women who started a factory job for at least one day after baseline—subsequently referred to as “factory starters”. Less than a third (31 percent) were still employed in the same factory after just three months. After fifteen months, only just over one in five (22 percent) were still employed in the same factory, while a further six percent were employed in a different factory job.

A significant determinant of labor supply and labor demand in Bole Lemi during our study period was the COVID-19 pandemic.⁴ From March onwards, firms in Bole Lemi saw a large drop in orders and a dramatic reduction in the availability of foreign inputs and of labor, leading to unprecedented drops in production and sales, and temporary closure of some factories (Mengistu et al., 2020). Thirteen percent of factory starters report having left involuntarily at three months, with fifteen percent having left involuntarily at fifteen months. Not all women’s accounts of their involuntary separation specify whether it was directly or indirectly linked to COVID-19 — for example, women report being laid off due to reduced labor

demand — but many of these involuntary separations do appear to be linked to the COVID-19 pandemic. The fact that the share of involuntary separations remains relatively constant between the two surveys suggests that the shock of COVID-19 on pushing individuals out of employment stabilized over time.

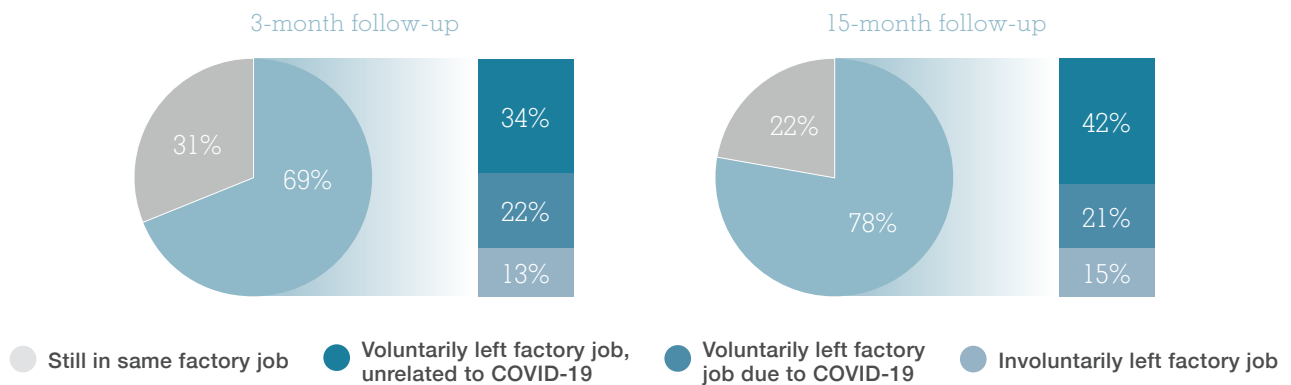
Strikingly, a larger share of women report that they underwent “voluntary” separations for COVID-related reasons, many of whom report qualitatively that they are staying at home due to personal health concerns. The proportion of factory starters who “voluntarily” quit for COVID-related reasons remains relatively constant — 22 percent after three months, 21 percent after fifteen months — suggesting that most “voluntary” quitting due to COVID-19 took place early in the pandemic. Notwithstanding the COVID-19 pandemic, the most common reason for leaving factory employment is voluntary quitting for other reasons (34 percent of all factory starters within three months, and this rises to 42 percent by fifteen months) which women specify as including low pay, family concerns and care duties, and health concerns related to factory work.

⁴ Ethiopia saw its first confirmed COVID-19 case on March 13th. Educational institutions were closed on March 16th and a transportation ban began on March 30th, with a state of emergency eventually being declared on April 8th.

Most women who leave factory jobs do not return to factory work. Figure 2b shows that regardless of the reason for their quits, the vast majority of factory starters did not immediately re-enter employment after they left their factory jobs. At the 15-month mark, however, employment levels have risen considerably. In both surveys, those who left voluntarily for reasons unrelated to COVID-19 are most likely to have re-entered employment. This makes sense if some of these women quit their jobs because they had

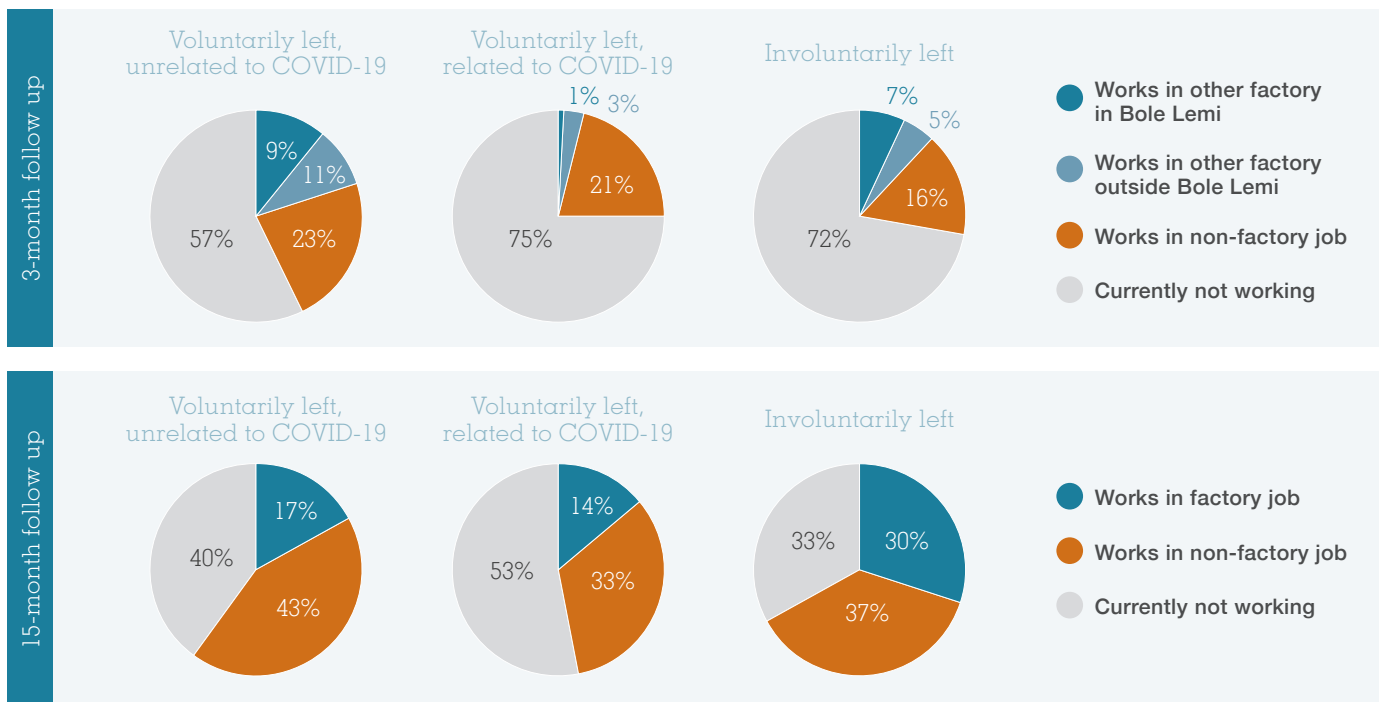
secured or expected to secure better outside options for employment. In contrast, those women who quit “voluntarily” due to COVID-19 are the least likely to be re-employed in both surveys. Again, this makes sense if the concerns these workers had surrounding COVID-19 are also present in other occupations. Finally, in both surveys those who left factory jobs (regardless of whether they quit or were let go) and re-entered employment are more likely to have accepted non-factory jobs than factory work.

FIGURE 2A: OF THE WORKERS WHO STARTED FACTORY JOBS BUT THEN LEFT, MOST DID SO VOLUNTARILY



Notes: On the left, sample of 333 “factory starters”, i.e. women who started a factory job for at least one day between baseline and three-month follow-up, surveyed at the three-month follow-up. On the right, sample of 310 “factory starters” surveyed at the fifteen-month follow-up. “Still in same factory job” refers to women who are still working at three months in the same factory job they started since baseline. The remaining women left their initial factory job either for (i) voluntary reasons unrelated to COVID-19 (e.g. low pay, tedious work), (ii) voluntary reasons related to COVID-19 (e.g. personal health concerns), or (iii) due to involuntary separations (e.g. factory closures due to COVID-19, firing).

FIGURE 2B. MOST FACTORY WORKERS WHO LEFT DID NOT RETURN TO A FACTORY JOB



Notes: At the top, sample of 230 women who started a factory job for at least one day since baseline and left this job by the three-month follow-up. At the bottom, sample of 243 “factory starters” who had left their initial factory job by the fifteen-month follow-up. At follow-up, these women are either currently (i) working in a factory job, (ii) working in a non-factory job (e.g. salaried employment, self-employment), or (iii) out of work (e.g. looking for a job, out of the labor force). At the three-month follow-up, we are able to further distinguish factory employment into inside and outside Bole Lemi.

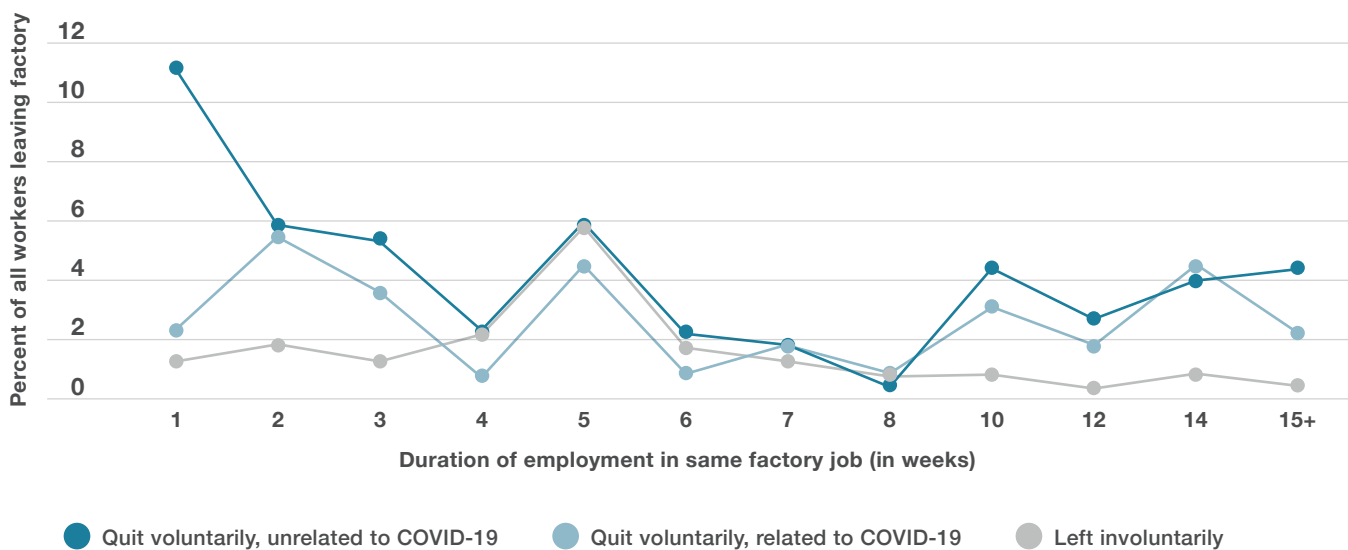


WHEN DO WORKERS QUIT?

Worker separations typically occur within the first six weeks of starting a factory job. Figure 3 shows that ten percent of initial factory starters quit in the first week, and altogether 30 percent of factory starters quit within the first month. Involuntary separations peak around 4-6

weeks into women's factory experience; although this also coincides with the large number of COVID-19-related involuntary separations which took place around a month after our baseline interviews, and hence may not be a permanent feature of employment in Bole Lemi.

FIGURE 3: MOST VOLUNTARY QUILTS OCCUR WITHIN THE FIRST SIX WEEKS



Notes: Sample of 230 women who started a factory job for at least one day after baseline and left the job between baseline and three months. This figure shows how many workers left their initial factory job after how many weeks. These women left their initial factory job due to either (i) voluntary reasons unrelated to COVID-19 (e.g. low pay, tedious work), (ii) voluntary reasons related to COVID-19 (e.g. personal health concerns), or (iii) involuntary separations (e.g. factory closures due to COVID-19, firing).

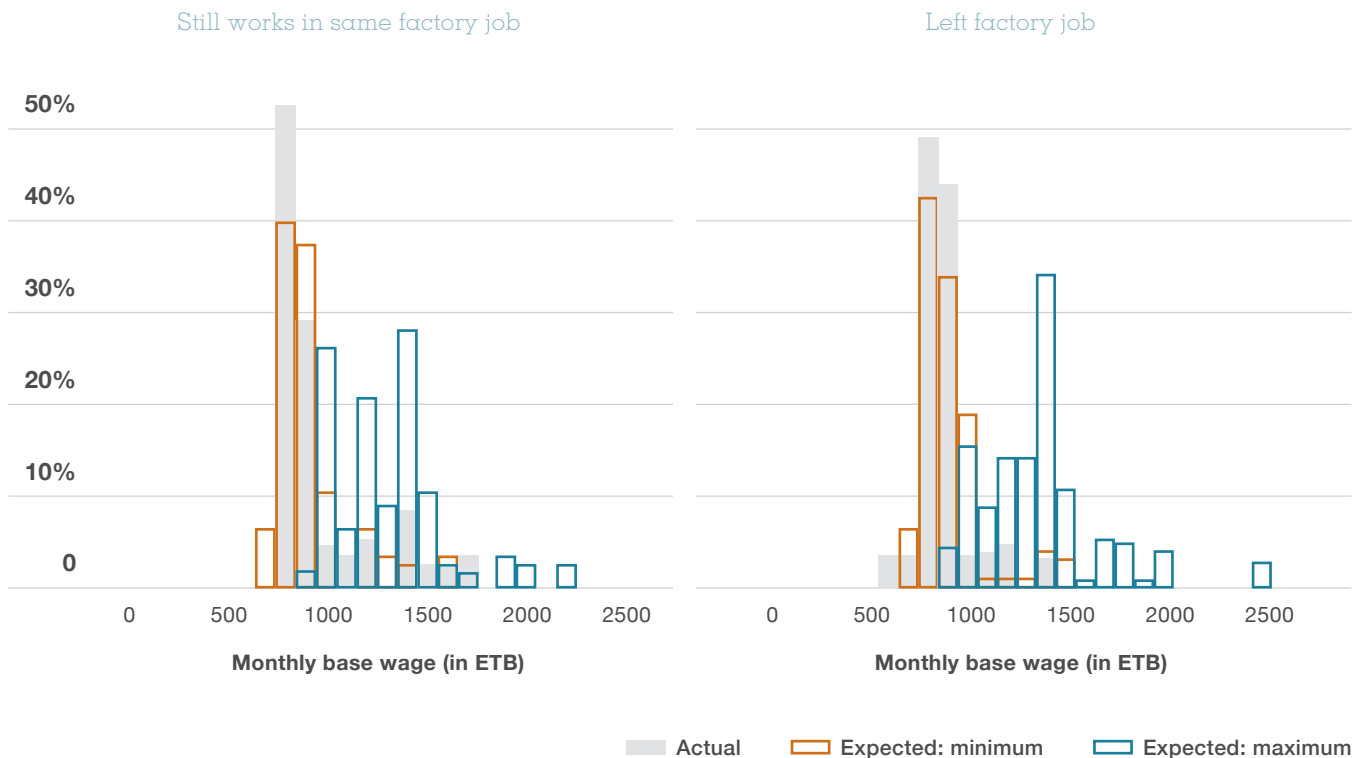
WHAT MIGHT DRIVE VOLUNTARY QUILTS?

Women’s wage expectations for factory jobs at baseline exceeded the average wages they went on to receive, and receiving lower wages is associated with more voluntary quitting. At baseline, we elicited the minimum and maximum wages women expected for job offers at Bole Lemi. Figure 4 shows the misalignment between these expectations and the actual wages factory starters ended up receiving after baseline: actual wages received are very close to the minimum that women expected to earn, and far below the maximum. The fact that realized wages were low compared to expectations appears to be a factor in voluntary quits unrelated to COVID-19: the average monthly wage received by initial factory starters overall was 870 ETB; but it was 911 ETB among those who

stayed compared to 860 ETB for those who quit voluntarily for reasons unrelated to COVID-19, which is significantly lower than 911 ETB statistically. Meanwhile those who did not start a factory job but instead found work elsewhere earned an average of 1,809 ETB per month. However, these women may of course differ from factory starters in their employment opportunities and skills, despite having turned up at Bole Lemi to express interest in factory work at the same time.

Most women who started a factory job perceive their wages to be lower than what they consider to be fair compensation for factory work, and their reservation wage. At the three-month follow-up, we also ask factory starters what wage they perceive as fair for the kind of factory work they

FIGURE 4: ACTUAL WAGES RECEIVED ARE CLOSE TO THE MINIMUM THAT WOMEN EXPECTED TO EARN AT BASELINE



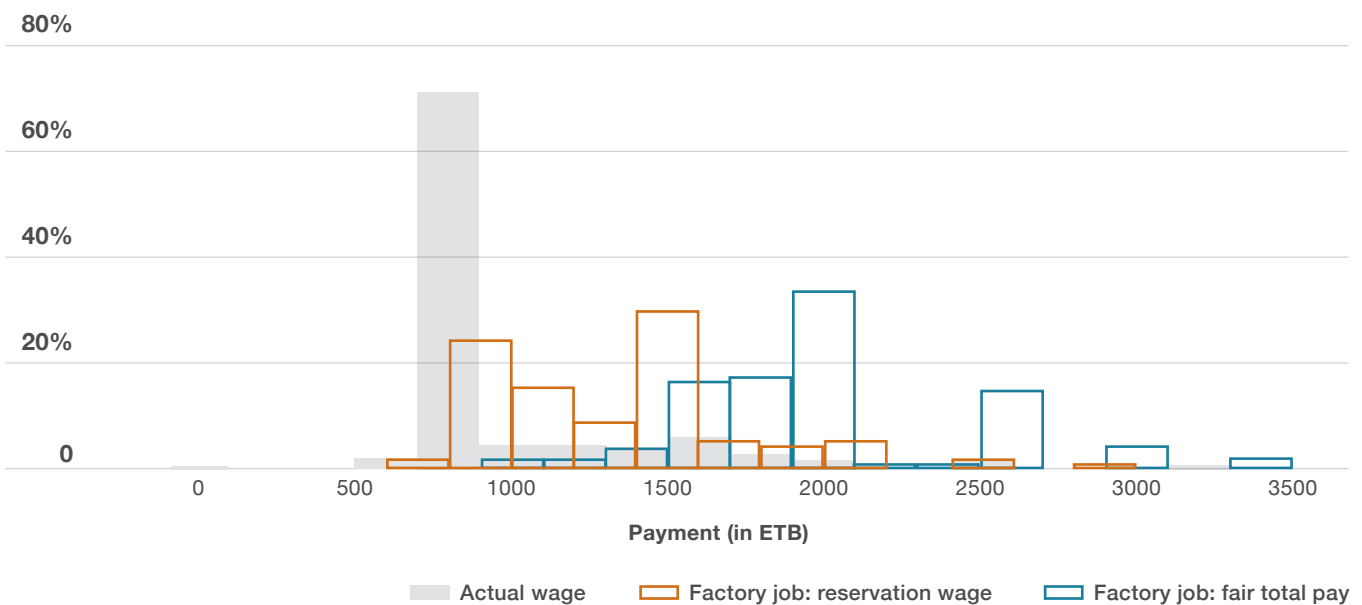
Notes: Left panel shows sample of 103 women who started a factory job for at least one day between baseline and three-month follow-up and still work in the same Bole Lemi job at the three-month follow-up. Right panel shows sample of 230 women who started a factory job between baseline and three-month follow-up but left this job by three-month follow-up. “Actual” refers to the monthly base wage women received when they started their factory job between baseline and the three-month follow-up. “Expected: minimum” and “Expected: maximum” refer to the lowest and highest monthly base wage women expected to receive for an entry level position in any of the factories in the Bole Lemi Industrial Park at baseline. Wages are in Ethiopian Birr.



experienced, and what wage they would accept to do similar work in the future (i.e. their future reservation wage). Figure 5 shows that the distribution of actual wages lies far below women’s reported perceptions of a fair wage for factory work, and of their future reservation wages. This pattern suggests that there is not only a misalignment between wage expectations

before starting a factory job and wages received upon starting as described above, but also a perception after experiencing factory work for a short time that wages are too low. Therefore, giving potential factory workers more information about wages before they start might not alone resolve the turnover issue. Instead, wages may need to rise to retain workers.

FIGURE 5: WAGES RECEIVED ARE FAR BELOW PERCEIVED FAIR WAGES AND FUTURE RESERVATION WAGES



Notes: “Actual wage” refers to the monthly base wage women received when they started their first factory job between baseline and three-month follow-up. “Factory job: reservation wage” refers to the minimum monthly base wage that women would accept for an entry-level factory job in Bole Lemi at three-month follow-up. “Factory job: fair total pay” refers to the total monthly payment (base wage plus additional benefits) that women would consider a fair compensation for an entry level factory job in Bole Lemi at three-month follow-up. The reservation wage and fair total payment was elicited from all women at three-month follow-up, regardless of whether they ever started a factory job for at least one day since baseline or not. Payments are in Ethiopian Birr.

GENDER INNOVATION POLICY INITIATIVE FOR ETHIOPIA

The Gender Innovation Policy Initiative for Ethiopia (GIPIE) is a country-level unit of the Africa Gender Innovation Lab (GIL) based in the World Bank Ethiopia Country Office. GIPIE aims to increase takeup of effective policies and programming to address the underlying causes of gender inequality in Ethiopia. GIPIE works towards this goal in three main ways. First, GIPIE identifies and prioritizes key constraints faced by women, and how these challenges may hinder progress towards national development goals. Second, GIPIE generates evidence on the extent to which programs and policies are successfully addressing these constraints by designing, experimenting, and evaluating possible solutions using rigorous impact evaluations. Third, GIPIE equips policymakers with state-of-the-art evidence to strengthen programs and policies, ultimately aiming to maximize impact on women's economic empowerment.

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CONCLUSIONS

This project provides new insights on women's employment in Ethiopia's industrial parks. We find that much of COVID-related quitting is “voluntary”, due to concerns about safety and related issues. Therefore, while measures to reinforce input chains and demand for factory orders remain key, immediate measures to address workers' health and safety concerns are crucial to counter voluntary quitting in times of a public health crisis. Meanwhile our findings that wages received are close to the minimum women were expecting — and below what they report as their future reservation wage or what they perceive as a fair wage — suggest that giving women information on wages before they start factory jobs may alone not be effective at increasing retention, since women still perceive wages as too low even after experiencing factory work.

Our ongoing analysis will aim to understand whether non-wage characteristics of factory jobs influence take-up and turnover, and whether women's psychological traits might be associated with staying in factory jobs, also highlighting relevant policy recommendations.

For more information on this work program, including related studies, see: <https://www.worldbank.org/en/country/ethiopia/brief/more-better-and-more-inclusive-jobs-preparing-for-successful-industrialization-in-ethiopia>

References

Abebe, Girum, Niklas Buehren, and Markus Goldstein. “Short-run welfare impacts of factory jobs: experimental evidence from Ethiopia.” *World Bank Policy Research Working Paper* No. 9325 (2020).

Blattman, Christopher, and Stefan Dercon. “The impacts of industrial and entrepreneurial work on income and health: experimental evidence from Ethiopia.” *American Economic Journal: Applied Economics* 10.3 (2018): 1-38.

Mengistu, Andualem, Pramila Krishnan, Koen Maaskant, Christian Johannes Meyer, and Eduard Krkoska. “Firms in Ethiopia's Industrial Parks: COVID-19 Impacts, Challenges, and Government Response.” (2020).

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