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# Women in Leadership Indonesia Baseline Study 

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## Chapter 1: Introduction

Women in Indonesia face significant cultural and structural barriers to decent, productive work. The current project aims to improve economic outcomes for women-and, by extension, for their families and Indonesia as a whole-by increasing access to the formal sector and improving conditions within that sector. In this phase of the project, that focus translates into two broad research questions: What are the obstacles to women's access to the formal sector, and what are the obstacles to equitable treatment and pay within that sector? To answer these questions, we have taken a multifaceted and interdisciplinary approach, drawing on research from economics, political science, and psychology, to develop a comprehensive understanding of the cultural and structural factors that affect women's economic outcomes.

We propose a model in which demographic and cultural factors shape attitudes about the abilities and proper role of women-and these attitudes combine with structural factors to affect educational and occupational choices and outcomes. For example, the belief that men are the head of the household may stem from growing up in a cultural, religious, and legal environment in which that belief is promoted. Structural factors, including the automatic payment of head of household benefits to men, occupational and industrial segregation, and wage disparity, make it likely that a husband will earn more than his wife. The combination of these structural factors and cultural beliefs may lead the woman to drop out of the workforce when they have children.

In this report, we focus on two parts of this model: the decision to enter the formal sector, and the role of attitudes and demographic factors in explaining obstacles to fair treatment and pay. We utilized two data sets in our analyses-the 2010 Sakernas labor force survey and the 2012 Women in Leadership (WIL) survey. Wage discrimination analyses used both the Sakernas survey and the WIL survey. The former has many more observations, and the latter has more predictors, so analyzing both creates a more complete picture of wage discrimination. Because the WIL survey was designed specifically to examine the research questions, it was used for the remainder of the analyses.

## Women in Leadership Survey Background

The WIL survey built on the themes identified in the literature review and key informant interviews. These include the difficulty of entering the formal sector, occupational and industrial segregation, wage disparities, verbal abuse and sexual harassment in the workplace, and ideas about women's natural roles and abilities.

Most female workers in Indonesia are employed in the informal sector, and women are more likely than men to work in this sector. Informal employment offers less stability, less prestige, and fewer benefits, however, meaning that the ability to transition to the formal sector is important for women's economic, social, and health outcomes. Significant barriers remain, however, including women's greater domestic responsibilities. Because women are expected to manage the home and take care of the children, they may be unable to commit to the regular
hours required at a formal sector job, and may be deemed less suitable for these positions by employers. Key informant interviews suggested that there are also perceived advantages of the informal sector-for example, some women reported that they thought they could earn more in the informal sector, and that they appreciated the flexibility of informal work.

Those women who do enter the formal sector tend to be clustered in certain industries; this industrial segregation often follows the gendered division of labor at home, with women tending to work in industries that mirror their traditional duties (Weeden \& Sorensen, 2001).
Occupational segregation means that women tend to work in certain jobs within industries-e.g., as sewers rather than supervisors. Stereotypes are one cause of occupational and industrial segregation: Stereotypes about women's abilities limit them to certain types of work, and stereotypes about how women should behave (known as prescriptive stereotypes) limit their ability to advance in the workplace by discouraging assertive, ambitious behavior (Rudman \& Glick, 2001). Occupational and industrial segregation are linked to wage disparities; where there is greater segregation, there is also a greater gender wage gap (Bettio, 2008).

Verbal abuse and sexual harassment serve as another barrier. Studies of the garment industry in Indonesia show that these are common concerns (Better Work Indonesia, 2012), and other research indicates that abuse and harassment can negatively affect workers' health and workplace outcomes (Tepper, 2007). Key informant interviews yielded reports of supervisors yelling at workers and putting garbage in their drinking water; one woman described male workers making holes in the bathroom wall to spy on the female workers. These practices can lead workers to leave the formal sector, and discourage other women from entering it at all.

Finally, cultural and religious beliefs about women are important factors in determining women's opportunities and outcomes. One example is described above-stereotypes about women's abilities and behavior can lead to occupational and industrial segregation. Religious beliefs are also influential, as the two most common religions in Indonesia, Islam and Christianity, have been widely interpreted as promoting a subservient role for women. The extent to which members of those religions share that interpretation, and agree with it, is likely to affect their support for women's full participation in the workforce.

## Women in Leadership Survey Design

The survey contains two types of data: reports of working conditions and outcomes (e.g., prevalence of harassment, type of occupation, and wage) and relevant attitudes and perceptions. For example, using the first type of data, we can examine the prevalence of informal sector work and the actual wage differentials between informal and formal work, and we can complete the picture using the second type of data-that is, by examining perceptions of the wage differential. One type of data tells us whether workers in the formal sector fare better, and the other type tells us whether people think that workers in the formal sector fare better. Because workers may not
have access to objective data, these perceptions are likely to be an important component of their decision to enter the formal sector.

The first type of data included measures of demographics (including age, sex, marital status, religion, and education), health and disability status, work status (including informal or formal), and working conditions. The second type included measures of attitudes about women's role in society and traits associated with women, and a series of scenarios. The scenarios were very brief stories about hypothetical workers. There were a few versions of each scenario, with subtle variations between versions. Each participant saw only one version of a given scenario, allowing us to compare responses across versions and isolate which contextual factors affect perceptions of working women. For example, in a scenario designed to determine the effect of disability on perceptions, one version mentioned that the woman in the story had a physical disability that did not interfere with her job, another version changed "physical" to "mental," and the third version did not mention disability at all. By comparing participants' perceptions of the woman in each version, we were able to isolate the effect of disability.

## Measuring Gender Attitudes

Attitude measures included those developed for international attitude surveys (e.g., the World Values Survey, or the International Social Survey Program), and those developed within the United States (and, in some cases, used in international research). Because these measures are key components of research on gender, but not well known outside that area of research, additional background is provided below.

## Stereotype content and endorsement

Gender stereotypes are pervasive and influential; they affect perceptions of women in both direct and subtle ways. For example, an employer evaluating a woman for a job or a promotion might point to stereotypes about women's abilities to justify his or her decision (e.g., "Women are too weak to lead," or "This job is too dangerous for a woman"). Frequently, however, the influence of stereotypes is subtler: Employers might shift their hiring criteria to rationalize a preference for male job candidates, viewing the same traits as more desirable when held by male candidates and less desirable when held by female candidates (Norton, Vandello, \& Darley, 2004; Phelan, Moss-Racusin, \& Rudman, 2008; Uhlmann \& Cohen, 2005). A great deal of research shows that stereotypes influence behavior even when we don't believe them: Simply being aware of a negative stereotype about their ability can lead individuals to underperform in that area (Steele, 1997). For example, being reminded of their gender can lead women to perform worse on math tests; this effect actually explains much of the gender gap in grades and performance on standardized tests (Walton \& Spencer, 2009). Stereotypes about gender differences in ability can lead women to underestimate their ability and lose interest in related career paths (Correll, 2001). Because stereotypes are so powerful in shaping opportunities for women, it is crucial to
understand which stereotypes are present in a culture, and to what extent individuals endorse these stereotypes.

## Essentialism

Essentialism is way of thinking about social groups. Sometimes, group membership seems to tells you very little about a person: We do not assume that all left-handed people have fixed, inherent traits in common, or that their handedness is a meaningful and informative part of their identity. Social groups like gender and race, however, often are believed to be important and fundamental aspects of a person's identity. These groups are frequently seen as natural, discrete, and informative-to have a certain underlying essence that connects their members. The extent to which a given group is essentialized varies from person to person. For example, some people see race as highly essential: They believe that race is a fixed, inherent trait with distinct boundaries (i.e., that a person can be a member of only one racial group), and that knowing a person's race tells you a lot about that person. Gender is even more likely to be seen as essential: Female was rated the most essential of 40 social categories (Haslam, Rothschild, \& Ernst, 2000). This means that people tend to see women as part of a natural, meaningful, coherent group, with shared traits that are innate and stable. Importantly, essentialist thinking about gender also leads people to believe that sex differences are large and unchangeable, and to endorse gender stereotypes (Brescoll \& LaFrance, 2004; Dar-Nimrod \& Heine, 2011). For example, reading an argument for a biological (as opposed to social) theory of gender differences led women to describe themselves with more stereotypically feminine traits (e.g., shy and soft-spoken; Coleman \& Hong, 2008). Similarly, being told that men have a genetic advantage in math performance led women to underperform on a math test (Dar-Nimrod \& Heine, 2006). An understanding of gender differences as essential and genetically based is linked to increased modern sexism, or the belief that discrimination against women is no longer a problem (Keller, 2005). More broadly, essentialism is linked to stereotype endorsement (Bastian \& Haslam, 2006) and acceptance of unequal status between groups (Morton, Postmes, Haslam, \& Hornsey, 2009; Williams \& Eberhardt, 2008).

## Benevolent and hostile sexism

Benevolent and hostile sexism are complementary aspects of bias against women. Hostile sexism refers to the hostility directed at women who are seen as threatening men's status or power (e.g., feminists, career women, and women who try to use their sexuality to control men; Glick et al., 2000). Benevolent sexism is the other side of the coin-an apparently positive view of women that still serves to reinforce the existing power structure. In benevolent sexism, women are seen as more pure and moral than men-deserving of men's adoration-but also as weak and delicate, in need of men's protection. Thus, although benevolent sexism seems positive at first blush-indeed, women are more likely to endorse benevolent sexism than hostile sexism, and have more positive views of benevolent sexists compared to hostile sexists (Barreto \& Ellemers, 2005; Glick \& Fiske, 1996) -it actually works to limit women's role in the public
sphere by portraying women as dependent on men and ill equipped for difficult or dangerous work. Individuals who endorse benevolent sexism also tend to endorse hostile sexism, modern sexism (the belief that discrimination against women is no longer a problem), and old-fashioned sexism (the more blatant belief that women are less capable than men; Glick \& Fiske, 1996, 2001). Because benevolent sexism is seen more positively than these other forms of sexism, its effects are insidious. For example, women performed worse in a job application setting when the job recruiter conveyed benevolent sexism than when the recruiter conveyed hostile sexism (or no sexism at all)—and yet, unlike hostile sexism, the benevolent sexism was not perceived as sexist (Dardenne, Dumont, \& Bollier, 2007).

Benevolent sexism is also linked to sexual harassment (Fiske \& Glick, 1995; Pryor, Giedd, \& Williams, 1995) and endorsement of gender stereotypes (Glick \& Fiske, 1996.). Research with 15,000 participants across 19 countries shows that benevolent and hostile sexism are relevant across cultures (Glick et al., 2000). Countries with high levels of hostile sexism also have high levels of benevolent sexism, and have higher levels of objective gender inequality, as measured by United Nation indices (the GEM and the GDI).

In most countries, men endorse hostile sexism more than women do, and this gender difference shrinks or disappears for benevolent sexism (Glick et al., 2000). That is, men are generally much more likely than women to think that women are trying to usurp men's power, but equally likely (or only slightly more likely) to think that women should be adored and protected by men. In a few countries (Cuba, Nigeria, South Africa, and Botswana) women endorse benevolent sexism more than men. To our knowledge, there has been no research examining these constructs in Indonesia.

## Zero-Sum Beliefs

One potential obstacle to the inclusion and fair treatment of women in the workplace is the belief that gains for women necessarily mean losses for men-i.e., a zero-sum view of gender equality. The zero-sum view could include the belief that as discrimination against women lessens, discrimination against men increases-that as women gain rights, men lose them. For example, proponents of this view might argue that if women have greater power within relationships, men necessarily have less power. Zero-sum beliefs can also apply to the workplace: More jobs and pay for women means fewer jobs and less pay for men. In a highly segregated workforce, with women working in separate industries and occupations than men, women's economic success may actually be less threatening-but those with zero-sum beliefs may resist integration of the workforce. For example, research in the United States shows that men who take a zero-sum view of women's progress show less interest in gender inclusiveness training than men who see women's progress as a win-win (Prime, Moss-Racusin, \& Foust-Cummings, 2009).

In sum, the WIL survey measured attitudes and perceptions in a variety of ways, capturing participants' understanding of gender, perceptions of women in the workplace, and beliefs about
the gender wage gap, the formal sector, and sexual harassment. The survey also investigated working conditions, wages, work status, and demographics. By examining these factors in combination, we were able to characterize the key barriers to women's ease of access and equitable treatment and pay in the formal sector.

## Chapter 2: Procedure and Characteristics of the Data Set

The survey was conducted in East Java and North Sumatra. Two teams of students served as enumerators (13 from Universitas Negeri Medan, in North Sumatra, and 15 from University of Brawijaya, in Malang, East Java). Target locations were selected to ensure a representative sample in each province, using BPS methodology. Enumerators received a map with a subset of the locations, and, because women were intentionally oversampled, instructions on whether to try to interview a man or a woman at each location. Enumerators went from house to house, explaining who they were and what the survey was, until they found an adult in each location who agreed to participate. All participants were required to be at least 18 years old.
Enumerators explained the purpose of the study and the participant's right to withdraw at any time, and if the participant consented, proceeded with the survey. At the conclusion of the survey (or whenever the participant elected to stop), participants were thanked and provided with an information sheet and contact details.

## Demographics

There were 790 participants ( 547 women, 240 men, and 3 unknown). Participants lived in East Java ( $58 \%$ ) and North Sumatra ( $42 \%$ ); $75 \%$ of participants lived in rural areas, and $25 \%$ lived in urban areas. About half were Javanese (51\%); the rest identified as one of the Batak ethnic groups ( $20 \%$ ), Madura ( $15 \%$ ), or another ethnicity ( $15 \%$ ). Most of the participants were married ( $66 \%$ ); $28 \%$ were single, and few participants reported being divorced, separated, or widowed. Participants' ages ranged from 18 to $73(M=34, S D=11)$. Participants were fairly well educated; the average number of years of education was 11 , with a range from 0 to 27 years. Men and women did not differ in average years of education.

Religion. The majority of the sample identified as Muslim (84\%), 15\% identified as Christian, and less than one percent identified as belonging to another religion. The proportion of Muslims was higher in East Java, while the proportion of Christians was higher in North Sumatra.

Table 2.1. Religious affiliation in East Java and North Sumatra.

| Do you identify with any of the <br> following religions? | East Java |  | North Sumatra |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Islam | 22 | $5.3 \%$ | 87 | $29.8 \%$ | 597 | $84 \%$ |
| Christianity | 394 | $94.3 \%$ | 203 | $69.5 \%$ | 109 | $15.4 \%$ |
| Other | 2 | $0.5 \%$ | 2 | $0.7 \%$ | 4 | $0.6 \%$ |

A majority of women reported that they wear the hijab all of the time (37\%) or sometimes (24\%). Percentages were very similar in East Java and North Sumatra.

The vast majority of men (94\%) and women (97\%) reported that their work schedule does not get in the way of their religious practices. Almost all women (95\%) reported that their job uniform does not get in the way of their religious practices, and this percentage was only slightly lower ( $93 \%$ ) among women who wear the hijab all the time.

## Health and Satisfaction

Overall, participants reported high levels of satisfaction and health, and there were no significant differences between genders across all variables. Most participants (67\%) reported being either satisfied or very satisfied with their life, and most (83\%) rated their health as good, very good, or excellent. Only $1 \%$ of participants reported having a physical disability, and none reported a mental disability. The majority of participants ( $80 \%$ ) reported not having health insurance. About half reported feeling depressed or sad not at all or only a little during the previous month; $11 \%$ were depressed or sad for most or all of the previous month.

## Employment

Most male participants reported that they were working, with roughly even numbers working in a family enterprise or farm ( $31 \%$ ) and working outside the house ( $36 \%$ ). Women were more likely to report spending time on housework ( $53 \%$ ) and childcare ( $42 \%$ ) and less likely to have worked outside the house ( $22 \%$ ) or in a family enterprise or farm ( $13 \%$ ). These results confirm that women are more heavily involved in household duties, while men are more likely to be employed.

Figure 2.1. Activities in the last week.


Of participants who were not currently working, more men (66\%) than women (50\%) had worked in the past, showing a gender gap in employment history. There was also a gender
difference in reasons for not working. Men were most likely to report that they were not working because they were attending school or training ( $46 \%$ ), or because they were unable to find a job ( $25 \%$ ). Women were most likely to say that they were not working because of childcare and family responsibilities (52\%), because they were attending school or training (20\%), or because their family did not want them to work (17\%).

Figure 2.2. Reasons for not working.


Women who were working were most likely be trading or selling goods ( $26 \%$ ); men were most likely to be working in agriculture (18\%), trading or selling goods (17\%), or working in the hospitality industry ( $14 \%$ ). The largest gender disparities were in domestic work, trading or selling goods, and household enterprise/home-based work, with larger percentages of women than men engaged in these activities.

Figure 2.3. Occupation type.


Participants were most likely to be own-account workers (36\%) or employees (33\%). Men were slightly more likely to be own-account workers (41\%) than women (34\%).

Table 2.2. Job status.

| What is/was your status in your current/last job? | Female <br> $\%$ | Male \% | Total \% |
| :--- | :---: | :---: | :---: |
| Own account worker | 34 | 41 | 36 |
| Employer assisted by temporary or unpaid worker | 3 | 2 | 3 |
| Employer assisted by permanent workers | 2 | 3 | 2 |
| Employee | 33 | 31 | 33 |
| Casual employee in agriculture | 6 | 5 | 6 |
| Casual employee not in agriculture | 7 | 4 | 6 |
| Out-sourced worker | 2 | 3 | 3 |
| Short-term contract | 8 | 6 | 8 |
| Unpaid worker | 0 | 1 | 0 |
| Contributing family worker | 5 | 2 | 4 |

Workers were most likely (42\%) to be employed in a factory, office, workshop, shop, kiosk, or other place outside of the home. Women were more likely to work in their employers' home
(which is consistent with women being more likely to be domestic workers), and men were more likely to work on farms.

Table 2.3. Workplace locations.

| Where do you mainly undertake your work? | Female \% | Male \% | Total \% |
| :--- | :---: | :---: | :--- |
| At home, no dedicated work space | 6 | 2 | 5 |
| Home, dedicated work space | 10 | 9 | 10 |
| Factory, office, workshop, shop, kiosk, etc. away <br> from home | 42 | 43 | 42 |
| Farm or agricultural plot | 9 | 20 | 13 |
| Home or workplace of client | 1 | 2 | 1 |
| Employer's home | 8 | 0 | 5 |
| Construction site | 0 | 1 | 1 |
| Market or bazaar stall | 5 | 1 | 4 |
| Street stall | 6 | 3 | 5 |
| No fixed location | 5 | 11 | 7 |
| Other | 7 | 8 | 7 |

Formalization. A majority of participants (71\%) who were own account workers had business licenses and $45 \%$ had taxpayer registration, with women more likely to have each of these. No women were registered with the Ministry of Manpower or had Jamsostek, and only $16 \%$ of men had either of these.

Table 2.4. Indicators of formalization.

| For your business, which of <br> the following do you have? <br> (Choose all that apply). | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Ten or more employees | 2 | $11 \%$ | 5 | $5 \%$ | 7 | $26 \%$ |
| Deed of Establishment | 2 | $11 \%$ | 6 | $5 \%$ | 8 | $32 \%$ |
| Business license | 16 | $84 \%$ | 11 | $42 \%$ | 27 | $58 \%$ |
| Registration with Ministry of <br> Manpower | 0 | $0 \%$ | 3 | $0 \%$ | 3 | $16 \%$ |
| Jamsostek | 0 | $0 \%$ | 3 | $0 \%$ | 3 | $16 \%$ |
| Taxpayer registration | 10 | $53 \%$ | 7 | $26 \%$ | 17 | $37 \%$ |
| VAT collector number | 3 | $16 \%$ | 5 | $8 \%$ | 8 | $26 \%$ |

More women (53\%) than men ( $42 \%$ ) wanted to formalize their business. Greater security to operate the business was the most frequently chosen reason (51\%) and was preferred by a larger
percentage of men ( $60 \%$ ) than women ( $47 \%$ ). Access to credit was selected by $34 \%$ of participants and was cited by a larger percentage of women (38\%) than men (27\%).

Table 2.5. Benefits of formalization.

| What are the main reasons that | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| you want to formalize your <br> business? (Choose all that <br> apply). | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Access to credit | 18 | $38 \%$ | 8 | $27 \%$ | 26 | $34 \%$ |
| Greater security over contracts | 5 | $11 \%$ | 4 | $13 \%$ | 9 | $12 \%$ |
| Access to business associations | 6 | $13 \%$ | 5 | $17 \%$ | 11 | $14 \%$ |
| Greater access to cooperatives | 2 | $4 \%$ | 5 | $17 \%$ | 7 | $9 \%$ |
| Greater security to operate <br> business | 22 | $47 \%$ | 18 | $60 \%$ | 40 | $52 \%$ |
| Fewer informal fees | 2 | $4 \%$ | 4 | $13 \%$ | 6 | $8 \%$ |

When asked why they did not want to formalize their business, women were most likely to report preferring the informal economy ( $42 \%$ ), while men were most likely to say that there were no benefits from formalization (39\%).

Table 2.6. Costs of formalization.

| What are the main reasons that <br> you do not want to formalize <br> your business? (Choose all that <br> apply). | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Taxes and regulations | 6 | $23 \%$ | 4 | $31 \%$ | 10 | $26 \%$ |
| No benefits from formalization | 5 | $19 \%$ | 5 | $38 \%$ | 10 | $26 \%$ |
| Prefer informal economy | 11 | $42 \%$ | 3 | $23 \%$ | 14 | $36 \%$ |
| Don't know how | 6 | $23 \%$ | 2 | $15 \%$ | 8 | $21 \%$ |
| Government does not allow me <br> to get license | 0 | $0 \%$ | 0 | $0 \%$ | 0 | $0 \%$ |
| Informal work provides higher <br> income | 2 | $8 \%$ | 0 | $0 \%$ | 2 | $5 \%$ |

Cooperative Benefits and Costs. Most participants were not members of cooperatives (83\%). Both men and women identified the biggest benefit to cooperatives as savings and access to loans $(84 \%)$. Participants who were not members of cooperatives were most likely to say that it
was because they did not want to join (43\%), but over half of participants either did not know of any cooperatives to join ( $28 \%$ ) or did not know the benefits of a cooperative ( $24 \%$ ).

Trade Unions. Most participants were not in a trade union; only $21 \%$ of women and $29 \%$ of men reported being a member. The most frequent reason for not participating was "don't want to" $(46 \%)$; for women, the next most frequent was "afraid to join" $(16 \%)$ and for men, it was "don't know of a trade union to join" (11\%).

Table 2.7. Trade union membership.

| Are you a member of a trade <br> union? | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Yes | 41 | $21 \%$ | 32 | $29 \%$ | 73 | $24 \%$ |
| No, afraid to join | 31 | $16 \%$ | 11 | $10 \%$ | 42 | $14 \%$ |
| No, no benefits from union <br> membership | 14 | $7 \%$ | 6 | $5 \%$ | 20 | $6 \%$ |
| No, don't know of trade union <br> to join | 14 | $7 \%$ | 12 | $11 \%$ | 26 | $8 \%$ |
| No, don't want to pay the dues | 5 | $3 \%$ | 3 | $3 \%$ | 8 | $3 \%$ |
| No, a trade union can't help | 8 | $4 \%$ | 5 | $5 \%$ | 13 | $4 \%$ |
| No, don't want to | 93 | $47 \%$ | 50 | $45 \%$ | 143 | $46 \%$ |

Employment History. Men reported having been at their current or last job significantly longer, on average, than women did: The mean length of time for men was 9.36 years, compared to 5.61 years for women. Men were more likely to report leaving their last job because the pay was too low ( $27 \%$ ), whereas women were more likely to report leaving because of family responsibilities: to get married or have a child (14\%), or take care of their family (14\%). A fairly high percentage of participants reported the reason as "other" (35\%).

Figure 2.4. Reasons for leaving last job.


Obstacles to Work. Women were more likely to be limited in their ability to work without permission; $46 \%$ of women had to check with their spouse, compared to $27 \%$ of men.

Figure 2.5. Did participants need permission to work?


There were no large gender differences in terms of whether workers had been asked about their marital status or family responsibilities. Women were only slightly more likely to have been asked about whether they were married ( $62 \%$ versus $59 \%$ for men),
and roughly equal percentages of men (14\%) and women (12\%) were asked if they had family responsibilities or childcare concerns.
Participants were also asked about the main reasons that women don't work, or have trouble finding a job that they want. Both men and women were most likely to select education/training ( $36 \%$ ) and childcare/family responsibilities ( $36 \%$ ). Other common responses included "family has sufficient income" (18\%), "don't want to work" ( $22 \%$ ), "no jobs available" (23\%), and "age" (17\%). Women were more likely to choose "don't want to work" ( $25 \%$ ) than men ( $16 \%$ ).

Table 2.8. Reasons that women don't work or have trouble finding a job.

| What are the main reasons that women don't work or have <br> trouble finding a job that they want? (Choose all that <br> apply). |  |  |  |
| :--- | :---: | :---: | :---: |
| Education/Training | Female \% | Male \% | Total \% |
| Child care/Family Responsibilities | $37 \%$ | $34 \%$ | $36 \%$ |
| No jobs available | $23 \%$ | $39 \%$ | $36 \%$ |
| Don't want to work | $24 \%$ | $16 \%$ | $23 \%$ |
| Family has sufficient income | $20 \%$ | $17 \%$ | $19 \%$ |
| Age | $18 \%$ | $16 \%$ | $17 \%$ |
| Jobs are too far away | $11 \%$ | $12 \%$ | $12 \%$ |
| Don't know how to search | $9 \%$ | $12 \%$ | $10 \%$ |
| Jobs pay too little | $10 \%$ | $9 \%$ | $9 \%$ |
| Their husbands or parents think a woman should not work | $9 \%$ | $11 \%$ | $9 \%$ |
| Don't like the jobs | $7 \%$ | $8 \%$ | $8 \%$ |
| Jobs are too dangerous | $5 \%$ | $9 \%$ | $6 \%$ |
| No reasons that are specific to women | $5 \%$ | $10 \%$ | $6 \%$ |
| Women need to take time off for family, menstruation, <br> child bearing | $5 \%$ | $5 \%$ | $5 \%$ |
| Don't have time to search | $4 \%$ | $4 \%$ | $4 \%$ |
| Women are not as good as men | $3 \%$ | $7 \%$ | $4 \%$ |
| Bad things happen to women when they are at work | $3 \%$ | $5 \%$ | $4 \%$ |
| Jobs have long hours | $3 \%$ | $3 \%$ | $3 \%$ |
| Don't have enough time to search | $2 \%$ | $5 \%$ | $3 \%$ |
| Jobs conflict with taste/values | $2 \%$ | $5 \%$ | $3 \%$ |
| Women don't get the good jobs | $1 \%$ | $5 \%$ | $2 \%$ |
| Women should not be working with men | $1 \%$ | $4 \%$ | $2 \%$ |
| Employers don't want to hire women | $1 \%$ | $3 \%$ | $2 \%$ |
|  |  |  |  |

Health and Leave. Men and women reported similar availability of health services at their most recent job. The most frequently available services were treatment for workplace injuries ( $29 \%$ ) and treatment for general illnesses ( $26 \%$ ). Only $6 \%$ of participants reported that there were no health services available.

Table 2.9. Health services available at work.

| What health services are/were <br> available at your most recent <br> job? (Choose all that apply) | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Treatment for workplace <br> injuries | 91 | $30 \%$ | 48 | $27 \%$ | 139 | $29 \%$ |
| Treatment for headaches or <br> fatigue | 56 | $18 \%$ | 31 | $17 \%$ | 87 | $18 \%$ |
| Treatment for general illnesses | 80 | $26 \%$ | 46 | $25 \%$ | 126 | $26 \%$ |
| General health check-up | 62 | $20 \%$ | 34 | $19 \%$ | 96 | $20 \%$ |
| Check-up for pregnant women | 62 | $20 \%$ | 34 | $19 \%$ | 96 | $20 \%$ |
| Check-up after women give <br> birth | 47 | $15 \%$ | 16 | $9 \%$ | 63 | $13 \%$ |
| Health education | 45 | $15 \%$ | 17 | $9 \%$ | 62 | $13 \%$ |
| Health care for my family | 15 | $5 \%$ | 8 | $4 \%$ | 23 | $5 \%$ |
| No health services | 16 | $5 \%$ | 15 | $8 \%$ | 31 | $6 \%$ |

A large majority of women (81\%) reported that menstruation leave is not available at their workplace, and $62 \%$ of women reported that they rarely or never take menstruation leave. Only $14 \%$ of women reported taking menstruation leave often or always. Most women, however, reported that it is at least somewhat important for women to be able to take menstruation leave (74\%).

Approximately equal percentages of participants reported that there was (44\%) or was not (42\%) paid maternity leave at their workplace; paternity leave was less frequently available, with $55 \%$ reporting no paternity leave and $16 \%$ reporting paid paternity leave.

Figure 2.6. Availability of paid maternity leave.


Figure 2.7 . Availability of paid paternity leave.


Training. Half of participants reported receiving no training when they started their most recent job. The most frequent type of training was in basic skills ( $37 \%$ ); the next most frequent types were training in upgrading skills ( $20 \%$ ) and in work hours ( $19 \%$ ). Only $4 \%$ of participants reported receiving training about sexual harassment.

Table 2.10. Types of training received.

| What types of training did you <br> receive when you first started <br> working at your most recent <br> job? (Choose all that apply) | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| None | 70 | $50 \%$ | 45 | $50 \%$ | 115 | $50 \%$ |
| Basic skills | 49 | $35 \%$ | 36 | $40 \%$ | 85 | $37 \%$ |
| Upgrading skills | 25 | $18 \%$ | 21 | $23 \%$ | 46 | $20 \%$ |
| Work hours | 26 | $19 \%$ | 17 | $19 \%$ | 43 | $19 \%$ |
| Company policies | 25 | $18 \%$ | 11 | $12 \%$ | 36 | $16 \%$ |
| Collective bargaining <br> agreement | 17 | $12 \%$ | 10 | $11 \%$ | 27 | $12 \%$ |
| Pay procedures | 19 | $14 \%$ | 8 | $9 \%$ | 27 | $12 \%$ |
| Overtime regulations | 16 | $12 \%$ | 11 | $12 \%$ | 27 | $12 \%$ |
| Labor law | 16 | $12 \%$ | 10 | $11 \%$ | 26 | $11 \%$ |
| Worker rights | 13 | $9 \%$ | 12 | $13 \%$ | 25 | $11 \%$ |
| Fines | 13 | $9 \%$ | 10 | $11 \%$ | 23 | $10 \%$ |
| Workplace safety | 11 | $8 \%$ | 11 | $12 \%$ | 22 | $10 \%$ |
| Benefits | 12 | $9 \%$ | 10 | $11 \%$ | 22 | $10 \%$ |
| Health and safety | 9 | $6 \%$ | 9 | $10 \%$ | 18 | $8 \%$ |
| Grievances or complaint <br> procedures | 8 | $6 \%$ | 4 | $4 \%$ | 12 | $5 \%$ |
| Sexual harassment training | 7 | $5 \%$ | 2 | $2 \%$ | 9 | $4 \%$ |

Social security/Jamsostek and head of household benefits. Men were more likely to receive Jamsostek or other social security benefits (28\%) than women were (18\%). Both men and women were most likely to pay for these benefits themselves ( $44 \%$ ); women were more likely to have the cost covered by their family ( $14 \%$ ) than men were ( $3 \%$ ). Participants who had Jamsostek or another source of social security were most likely to have health insurance coverage ( $96 \%$ ); the next most commonly received insurance was workplace accident insurance (63\%).

Table 2.11. Insurance coverage.

| What coverage do you have under | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Jamsostek or social security? <br> (Choose all that apply) | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Workplace accident insurance | 33 | $62 \%$ | 24 | $65 \%$ | 57 | $63 \%$ |
| Health insurance | 51 | $96 \%$ | 35 | $95 \%$ | 86 | $96 \%$ |
| Pension/old age insurance | 28 | $53 \%$ | 24 | $65 \%$ | 52 | $58 \%$ |
| Death insurance | 26 | $49 \%$ | 19 | $51 \%$ | 45 | $50 \%$ |

Table 2.12. Payment for Jamsostek or other social security.

| Who pays for your Jamsostek or <br> other social security? | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| I do | 20 | $39 \%$ | 19 | $51 \%$ | 39 | $44 \%$ |
| My employer does | 15 | $29 \%$ | 10 | $27 \%$ | 25 | $28 \%$ |
| My employer and I do | 7 | $14 \%$ | 6 | $16 \%$ | 13 | $15 \%$ |
| My family does | 7 | $14 \%$ | 1 | $3 \%$ | 8 | $9 \%$ |
| Other | 3 | $6 \%$ | 1 | $3 \%$ | 4 | $4 \%$ |

Men were much more likely to report that their employer offered head of household benefits $(24 \%)$ than women were ( $6 \%$ ). Men were also more likely to receive these benefits (53\%) than women were ( $22 \%$ ). It is somewhat surprising that even $22 \%$ of women reported receiving head of household benefits, as these go automatically to men and women must apply to receive them. Indeed, most women (71\%) reported that they are not eligible.

Table 2.13. Receipt of head of household benefits.

| Do you receive head of household <br> benefits? | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Yes, I receive them | 14 | $22 \%$ | 25 | $53 \%$ | 39 | $35 \%$ |
| No, I am not eligible for them | 46 | $71 \%$ | 16 | $34 \%$ | 62 | $55 \%$ |
| No, I am eligible but have not <br> applied for them | 1 | $2 \%$ | 3 | $6 \%$ | 4 | $4 \%$ |
| No, I have applied for them but <br> have not received them | 4 | $6 \%$ | 3 | $6 \%$ | 7 | $6 \%$ |

Occupational Segregation. There was a good deal of occupational segregation; $56 \%$ of women and $63 \%$ of men reported that most or all of the other people who also had their job were the same gender as they were. Only $26 \%$ of participants reported that their job is held by equal numbers of women and men.

Table 2.14. Occupational segregation.

| How many of your co- <br> workers/neighbors who <br> have/had the same job as you <br> are women? | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| All women | 21 | $10 \%$ | 5 | $4 \%$ | 26 | $7 \%$ |


| Mostly women | 103 | $46 \%$ | 15 | $12 \%$ | 118 | $34 \%$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Half women and half men | 64 | $29 \%$ | 28 | $22 \%$ | 92 | $26 \%$ |
| Mostly men | 33 | $15 \%$ | 48 | $37 \%$ | 81 | $23 \%$ |
| All men | 1 | $1 \%$ | 34 | $26 \%$ | 35 | $10 \%$ |
| Total | 222 | $100 \%$ | 130 | $100 \%$ | 352 | $100 \%$ |

Additional occupational segregation was suggested by the data on supervisor gender; women were much more likely to have a female supervisor (31\%) than men were (5\%). Women were also more likely to report not having a supervisor (12\%) than men were (5\%). In addition, in our sample, men were more likely to be supervisors ( $37 \%$ ) than women ( $18 \%$ ).
Table 2.15. Gender of supervisor.

| Is/was your supervisor a man or <br> a woman? | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Man | 78 | $57 \%$ | 61 | $91 \%$ | 139 | $68 \%$ |
| Woman | 42 | $31 \%$ | 3 | $5 \%$ | 45 | $22 \%$ |
| No supervisor | 17 | $12 \%$ | 3 | $5 \%$ | 20 | $10 \%$ |
| Total | 137 | $100 \%$ | 67 | $100 \%$ | 204 | $100 \%$ |

Table 2.16. Percentage of female and male participants who are supervisors.

| Do/did you supervise people in <br> your job? | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Yes, many (five or more) | 19 | $6 \%$ | 31 | $17 \%$ | 50 | $10 \%$ |
| Yes, a few (two to five) | 38 | $12 \%$ | 37 | $20 \%$ | 75 | $15 \%$ |
| No | 255 | $82 \%$ | 118 | $63 \%$ | 373 | $75 \%$ |
| Total | 312 | $100 \%$ | 186 | $100 \%$ | 498 | $100 \%$ |


#### Abstract

Abuse and Harassment. Women were more likely (41\%) than men (31\%) to report that verbal abuse is a concern in their workplace. They were also much more likely to report sexual harassment: $24 \%$ of women said that sexual harassment is a concern in their workplace, compared to $9 \%$ of men. It may be that women are more likely to notice sexual harassment, or, given the high levels of occupational segregation, that sexual harassment is less of a problem in men's workplaces simply because they are less likely to have any female coworkers. A slightly higher proportion of women ( $24 \%$ ) than men (19\%) reported that there is an official procedure for dealing with sexual harassment in their workplace. Of those participants who did report that sexual harassment is a concern in their workplace, the most common action reported was


discussing the problem with a supervisor or manager (48\%), followed by discussing among coworkers ( $35 \%$ ). Only $18 \%$ reported that nothing was done in response.

Table 2.17. Actions reported by participants who identified sexual harassment as a concern in their workplace.

| Do/did workers in your workplace take any action about concerns with <br> sexual harassment? (Choose all that apply) |  |  |
| :--- | :---: | :---: |
| Action | Frequency | Percent |
| Discussed among co-workers | 14 | $35 \%$ |
| Discussed with supervisor or manager | 19 | $48 \%$ |
| Discussed with the trade union representative | 2 | $5 \%$ |
| Considered quitting | 3 | $8 \%$ |
| Threatened a strike | 0 | $0 \%$ |
| Caused a strike | 1 | $3 \%$ |
| No, nothing. | 7 | $18 \%$ |

Other Concerns. Most participants felt secure in their ability to keep their job, with $76 \%$ of men and $72 \%$ of women reporting that they felt "secure" or "very secure." Both men and women were most likely to list "business might be bad" ( $38 \%$ ) and "not working hard enough" $(27 \%)$ as reasons they might lose their jobs. Union activity was selected by only $3 \%$ of participants. A greater percentage of men (32\%) than women (11\%) listed the end of the growing/production/tourist season as a possible reason, and a greater percentage of women $(18 \%)$ than men (4\%) listed getting married. Getting pregnant was selected by $17 \%$ of women.

Table 2.18. Possible reasons for losing one's job.

| What are some of the reasons you <br> might lose your job? (Choose all <br> that apply) | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Business might be bad | 45 | $38 \%$ | 28 | $36 \%$ | 73 | $38 \%$ |
| The growing/tourist/production <br> season ends | 13 | $11 \%$ | 25 | $32 \%$ | 38 | $20 \%$ |
| Wrong skills/education/experience | 12 | $10 \%$ | 7 | $9 \%$ | 19 | $10 \%$ |
| Not working hard enough | 24 | $21 \%$ | 28 | $36 \%$ | 52 | $27 \%$ |
| Union activities | 2 | $2 \%$ | 3 | $4 \%$ | 5 | $3 \%$ |
| Poor relationship with my <br> supervisor/supplier | 17 | $15 \%$ | 8 | $10 \%$ | 25 | $13 \%$ |
| Get married | 21 | $18 \%$ | 3 | $4 \%$ | 24 | $12 \%$ |
| Get pregnant | 20 | $17 \%$ | 3 | $4 \%$ | 23 | $12 \%$ |

Approximately equal proportions of men (27\%) and women (33\%) reported that they sometimes or always feel concerned about traveling between home and work.

Table 2.19. Concern about traveling to work.

| Do/did you feel concerned <br> traveling between home and work, <br> particularly at night? | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Yes, always | 21 | $9 \%$ | 16 | $12 \%$ | 37 | $10 \%$ |
| Yes, sometimes | 53 | $24 \%$ | 20 | $15 \%$ | 73 | $20 \%$ |
| No, never. Travel is safe. | 121 | $54 \%$ | 81 | $61 \%$ | 202 | $57 \%$ |
| No, someone else provides <br> transportation at night. | 4 | $2 \%$ | 1 | $1 \%$ |  |  |
| No, I don't need to travel at night. | 26 | $12 \%$ | 14 | $11 \%$ | 40 | $11 \%$ |
| Total | 225 | $100 \%$ | 132 | $100 \%$ | 357 | $100 \%$ |

Participants reported moderate levels of job satisfaction, with no differences between men and women.

Figure 2.8. Job satisfaction.


Working days and hours. Almost all working participants reported that they work Monday through Friday; $85 \%$ of participants reported working on Saturday, and $57 \%$ reported working on Sunday. A greater percentage of men (62\%) than women (54\%) reported working on Sunday; otherwise, men and women's schedules were similar.

Table 2.20. Days of the week worked by women and men.

| What days of the week do/did you | Female | Male | Total |
| :--- | :---: | :---: | :---: |


| usually work? (Choose all that <br> apply) | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Sunday | 131 | $54 \%$ | 92 | $62 \%$ | 223 | $57 \%$ |
| Monday | 240 | $98 \%$ | 143 | $97 \%$ | 383 | $98 \%$ |
| Tuesday | 234 | $96 \%$ | 142 | $96 \%$ | 376 | $96 \%$ |
| Wednesday | 237 | $97 \%$ | 144 | $97 \%$ | 381 | $97 \%$ |
| Thursday | 235 | $96 \%$ | 143 | $97 \%$ | 378 | $96 \%$ |
| Friday | 224 | $92 \%$ | 143 | $97 \%$ | 367 | $94 \%$ |
| Saturday | 205 | $84 \%$ | 129 | $87 \%$ | 334 | $85 \%$ |

Men reported working more hours per week ( $M=49.09, S D=21.38$ ) than women $\operatorname{did}$ ( $M=$ 44.20, $S D=21.99$ ). Just over half of participants (57\%) reported working between 30 and 60 hours per week.

Figure 2.9. Weekly hours worked by gender.


Wages and Bonuses. Almost half of participants reported that they do not receive bonuses ( $46 \%$ ). The most frequently received bonus was an annual bonus (reported by $37 \%$ ).
Productivity bonus and "other" were each listed by $13 \%$ of participants. Women and men tended to report receiving the same types of bonuses, with women slightly more likely to report receiving an annual bonus (40\%) than men (33\%).

Table 2.21. Bonuses received.

| Do you receive any bonuses for <br> your work? (Choose all that <br> apply) | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Yes, annual bonus | 120 | $40 \%$ | 58 | $33 \%$ | 178 | $37 \%$ |
| Yes, attendance bonus | 13 | $4 \%$ | 12 | $7 \%$ | 25 | $5 \%$ |


| Yes, productivity bonus | 37 | $12 \%$ | 23 | $13 \%$ | 60 | $13 \%$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Yes, years at company bonus | 12 | $4 \%$ | 10 | $6 \%$ | 22 | $5 \%$ |
| Yes, other bonus | 41 | $14 \%$ | 21 | $12 \%$ | 62 | $13 \%$ |
| No | 132 | $44 \%$ | 88 | $49 \%$ | 220 | $46 \%$ |

There was a large discrepancy in wages; women earned $79 \%$ of what men earned in weekly pay, and $68 \%$ of what men earned in hourly pay. Men also reported receiving substantially more in bonus payments $(M=1,046,429 \mathrm{Rp}, S D=3,336,790 \mathrm{Rp}$ ) than women $\operatorname{did}(M=347,535 \mathrm{Rp}, S D$ $=826,222 \mathrm{Rp}$ ).

Table 2.22. Mean hourly and weekly wages, in rupiah (standard deviations in parentheses).

|  | Weekly <br> wages | Hourly <br> wages |
| :--- | :---: | :---: |
| Women | 601,612 | 8,153 |
| $(1,418,390)$ | $(28,833)$ |  |
|  | 757,698 | 11,947 |
| Men | $(1,976,022)$ | $(30,143)$ |
|  | 658,658 | 9,241 |
| Total | $(1,639,200)$ | $(29,192)$ |

Promotions. Men reported receiving more promotions than women. A few men and women reported surprisingly high numbers of promotions, but the gender difference remained significant when calculated without these outliers. Most participants ( $80 \%$ ) had not been promoted.

Table 2.23. Promotion history.

| How many times have you <br> been/were you promoted in <br> your current or previous job? | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 132 | $83 \%$ | 61 | $76 \%$ | 193 |
| 0 | 14 | $9 \%$ | 2 | $3 \%$ | 16 | $7 \%$ |
| 1 | 10 | $6 \%$ | 4 | $5 \%$ | 14 | $6 \%$ |
| 2 | 1 | $1 \%$ | 3 | $4 \%$ | 4 | $2 \%$ |
| 3 | 0 | $0 \%$ | 2 | $3 \%$ | 2 | $1 \%$ |
| 4 | 1 | $1 \%$ | 4 | $5 \%$ | 5 | $2 \%$ |
| 5 | 0 | $0 \%$ | 1 | $1 \%$ | 1 | $0 \%$ |
| 6 | 0 | $0 \%$ | 1 | $1 \%$ | 1 | $0 \%$ |
| 7 | 0 | $0 \%$ | 1 | $1 \%$ | 1 | $0 \%$ |
| 8 | 0 | $0 \%$ | 0 | $0 \%$ | 0 | $0 \%$ |
| 9 |  |  | Prequency | Percent | Frequency | Percent |


| 10 | 0 | $0 \%$ | 0 | $0 \%$ | 0 | $0 \%$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 11 | 1 | $1 \%$ | 0 | $0 \%$ | 1 | $0 \%$ |
| 12 | 0 | $0 \%$ | 1 | $1 \%$ | 1 | $0 \%$ |
| 13 | 0 | $0 \%$ | 0 | $0 \%$ | 0 | $0 \%$ |
| 14 | 0 | $0 \%$ | 0 | $0 \%$ | 0 | $0 \%$ |
| 15 | 0 | $0 \%$ | 0 | $0 \%$ | 0 | $0 \%$ |
| 16 | 0 | $0 \%$ | 0 | $0 \%$ | 0 | $0 \%$ |
| 17 | 1 | $1 \%$ | 0 | $0 \%$ | 1 | $0 \%$ |

Participants were equally likely to report that there were no barriers to promotion (29\%) and that their skill or ability was a barrier (29\%). Education (19\%) and lack of opportunities (17\%) were the next most commonly cited barriers. Men were more likely to say that their skill level was a barrier, while women were more likely to say that there were no opportunities. Only six women ( $8 \%$ of those who answered the question) said that their gender was a barrier (one man said the same).

Table 2.24. Barriers to promotion.

| What are/were the barriers to <br> you getting promoted in your <br> place of work? (Choose all that <br> apply) | Frequency |  | Percent | Frequency | Percent | Frequency |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | Percent | Male |
| :--- |
| My skill or ability |

## Households

Family demographics. Most of the participants were married (66\%), and 50\% of participants had a child in their household. Very large households were not common; 78\% of participants lived in a household with five or fewer other people. Women's spouses were generally better educated than men's spouses.

Figure 2.10. Spouse's highest level of education.


Pregnancy. Most of the mothers in the sample reported that they went to the doctor for a checkup while pregnant ( $90 \%$ ), and $86 \%$ reported going for a check-up after giving birth. A large
majority ( $85 \%$ ) of mothers reported that a midwife was present at the delivery of their children; a much smaller percentage ( $32 \%$ ) reported that a doctor or other medical professional was present.

Table 2.25. Attendants at delivery of children.

| Who attended the delivery of your <br> children? | Frequency | Percent |
| :--- | :---: | :---: |
| Doctor or medical professional | 97 | $32 \%$ |
| Midwife or nurse practitioner | 257 | $85 \%$ |
| Family friend or relative | 11 | $4 \%$ |
| Traditional healer | 28 | $9 \%$ |
| Myself | 3 | $1 \%$ |

Most mothers returned to work after giving birth (63\%); $29 \%$ did not return, and $8 \%$ were not working when pregnant. Of those who did return to work, $68 \%$ returned within three months, and $91 \%$ returned within a year. Most mothers who returned to work reported that they were given the opportunity to breastfeed at work (71\%).

Table 2.26. Time to return to work after giving birth (in months).

| How long after giving birth did <br> you return to work? | Frequency | Percent | Cumulative <br> Percent |
| :--- | :---: | :---: | :---: |
| 0 | 3 | $2 \%$ | $2 \%$ |
| 1 | 23 | $16 \%$ | $18 \%$ |
| 2 | 32 | $22 \%$ | $40 \%$ |
| 3 | 41 | $28 \%$ | $68 \%$ |
| 4 | 8 | $6 \%$ | $74 \%$ |
| 5 | 4 | $3 \%$ | $77 \%$ |
| 6 | 8 | $6 \%$ | $82 \%$ |
| 7 | 2 | $1 \%$ | $83 \%$ |
| 10 | 3 | $2 \%$ | $86 \%$ |
| 12 | 8 | $6 \%$ | $91 \%$ |
| 18 | 1 | $1 \%$ | $92 \%$ |
| 24 | 4 | $3 \%$ | $95 \%$ |
| 27 | 1 | $1 \%$ | $95 \%$ |
| 30 | 3 | $2 \%$ | $97 \%$ |
| 42 | 1 | $1 \%$ | $98 \%$ |
| 48 | 1 | $1 \%$ | $99 \%$ |
| 72 | 1 | $1 \%$ | $99 \%$ |
| 84 | 1 | $1 \%$ | $100 \%$ |

Mothers who did not return to work were most likely to say that it was because they wanted to stay home and take care of their family ( $75 \%$ ), or because their husband wanted them to stay home ( $49 \%$ ). Only $4 \%$ of mothers reported that lack of childcare prevented them from returning to work.

Table 2.27. Reasons that mothers did not return to work.

| Why didn't you return to work? | Frequency | Percent |
| :--- | :---: | :---: |
| I wanted to stay home and take <br> care of my family | 57 | $75 \%$ |
| My husband wanted me to stay <br> home with the baby. | 37 | $49 \%$ |
| I was breast-feeding and needed to <br> stay home. | 21 | $28 \%$ |
| I couldn't find or afford childcare | 3 | $4 \%$ |
| The hours were too long | 1 | $1 \%$ |
| The job was too far away | 1 | $1 \%$ |


| It was too late at night | 0 | $0 \%$ |
| :--- | :--- | :--- |
| I lost my job while I was pregnant | 1 | $1 \%$ |

When asked who takes care of the children while they are at work, men were most likely to say that their wives do $(44 \%)$, while women were more likely to rely on their parents or their husband's parents ( $28 \%$ ). The third most common response for both men and women was that the children take care of themselves ( $21 \%$ ); some of those responses may be from participants with older children.

Table 2.28. Childcare arrangements.

| Who takes care of your children <br> while you're at work? (Choose all <br> that apply). | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Work-based childcare center | 2 | $1 \%$ | 0 | $0 \%$ | 2 | $1 \%$ |
| Other childcare center | 2 | $1 \%$ | 0 | $0 \%$ | 2 | $1 \%$ |
| Wife or husband | 57 | $22 \%$ | 56 | $44 \%$ | 113 | $29 \%$ |
| Your mother, father, mother-in- <br> law, or father-in-law | 75 | $28 \%$ | 29 | $23 \%$ | 104 | $26 \%$ |
| Other relatives | 22 | $8 \%$ | 13 | $10 \%$ | 35 | $9 \%$ |
| A friend or neighbor | 13 | $5 \%$ | 11 | $9 \%$ | 24 | $6 \%$ |
| A domestic worker | 10 | $4 \%$ | 7 | $5 \%$ | 17 | $4 \%$ |
| Other | 19 | $7 \%$ | 5 | $4 \%$ | 24 | $6 \%$ |
| No one. They take care of <br> themselves. | 59 | $22 \%$ | 23 | $18 \%$ | 82 | $21 \%$ |

Most men and women said that childcare is not a concern (79\%), and small percentages had discussed it with friends or family ( $16 \%$ ) or with co-workers ( $3 \%$ ). Only women reported having considered quitting (4\%) or actually quitting (1\%).

Table 2.29. Childcare concerns.

| Is childcare a concern? (Choose <br> all that apply) | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| No | 145 | $78 \%$ | 68 | $82 \%$ | 213 | $79 \%$ |
| Yes, I've discussed it with my <br> friends or family | 30 | $16 \%$ | 13 | $16 \%$ | 43 | $16 \%$ |
| Yes, I've discussed it with co- <br> workers | 5 | $3 \%$ | 2 | $2 \%$ | 7 | $3 \%$ |
| Yes, I have considered quitting | 7 | $4 \%$ | 0 | $0 \%$ | 7 | $3 \%$ |


| Yes, I quit | 1 | $1 \%$ | 0 | $0 \%$ | 1 | $0 \%$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |

Household wealth. Over half ( $63 \%$ ) of participants lived in a two- or three-room house ( $M=$ $2.86, S D=1.73$ ). A majority ( $61 \%$ ) did not have running water. Slightly over half ( $56 \%$ ) of households earned less than $2,000,000$ rupiah per month.

Table 2.30. Monthly household income, in millions of rupiah.

| On average, how much does your <br> family earn per month? | Frequency | Percent | Cumulative <br> Percent |
| :--- | :---: | :---: | :---: |
| $<0.5$ | 35 | $5 \%$ | $5 \%$ |
| 0.5 to $<1$ | 122 | $17 \%$ | $22 \%$ |
| 1 to $<1.5$ | 148 | $20 \%$ | $42 \%$ |
| 1.5 to $<2$ | 102 | $14 \%$ | $56 \%$ |
| 2 to $<2.5$ | 82 | $11 \%$ | $68 \%$ |
| 2.5 to $<3$ | 50 | $7 \%$ | $75 \%$ |
| 3 to $<3.5$ | 44 | $6 \%$ | $81 \%$ |
| 3.5 to $<4$ | 19 | $3 \%$ | $83 \%$ |
| 4 to $<4.5$ | 22 | $3 \%$ | $86 \%$ |
| 4.5 to $<5$ | 26 | $4 \%$ | $90 \%$ |
| $5+$ | 73 | $10 \%$ | $100 \%$ |
| Total | 723 | $100 \%$ |  |

Technology. Men appear to have greater access to technology: A greater proportion of men ( $88 \%$ ) than women $(76 \%)$ reported having a cell phone, and a greater proportion of women ( $49 \%$ ) than men ( $38 \%$ ) reported having no Internet access. Men were also more likely to report accessing the Internet through each of the methods listed (except cell phone).

Table 2.31. Internet access.

| Do you ever use the Internet? <br> (Choose all that apply) | Female |  | Male |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Internet at home | 73 | $19 \%$ | 38 | $20 \%$ | 111 | $19 \%$ |
| Internet at work | 66 | $17 \%$ | 41 | $21 \%$ | 107 | $18 \%$ |
| Internet café | 101 | $26 \%$ | 61 | $32 \%$ | 162 | $28 \%$ |
| Home of friend or family | 33 | $8 \%$ | 21 | $11 \%$ | 54 | $9 \%$ |
| Internet on cell phone | 165 | $42 \%$ | 75 | $39 \%$ | 240 | $41 \%$ |
| No internet | 191 | $49 \%$ | 73 | $38 \%$ | 264 | $45 \%$ |

Household decision-making. Men generally had more power in households: More women $(19 \%)$ than men ( $12 \%$ ) reported that their spouse decides how the family income will be spent, and more men ( $39 \%$ ) than women ( $27 \%$ ) reported that they make those decisions.

Figure 2.11. Household decision-making.


Men were also likely to make more money; two-thirds of men (66\%) reported that they were the primary wage earners, compared to $12 \%$ of women.

Figure 2.12. Percentage of men and women identifying as the primary wage earner.


Although men tended to earn more and were more likely to make spending decisions, both men ( $92 \%$ ) and women ( $95 \%$ ) overwhelmingly agreed that they would check with their spouse before spending a substantial amount of money.

## Conclusions

A few interesting patterns emerged from the data. First, as expected, men were more likely to be employed outside the home and to be the primary wage earner for their family. Women spent more time on housework and childcare. Interestingly, men were slightly more likely to report being own-account workers, but also more likely to receive Jamsostek or other social security benefits.

Men received better treatment in the workplace; they reported less verbal and sexual harassment, were promoted more often, and received more in weekly, hourly, and bonus pay. Men also had more power, both within the workplace (they were more likely to be supervisors) and at home (they were more likely to decide how the family income is spent).

There were several indications of occupational segregation. Men and women tended to have different types of jobs-for example, women were more likely to be domestic workers, to sell goods, or to do home-based work, while men were more likely to work on farms. In addition, a majority of participants reported working mostly with workers of the same gender, and women were much more likely to have a female supervisor than men were.

The following chapters explore these trends in more depth, examining the role of discrimination in wage disparities, perceptions of sexual harassment (and how these relate to reported experiences), and the attitudes and stereotypes that can help explain occupational segregation.

## Chapter 3: Attitudes and Perceptions

This chapter describes the results of the attitude measures and scenarios. Attitude measures are analyzed with regression, which allows us to determine which factors predict attitudes (e.g., are men more likely to agree with stereotypes about women? Are participants with more education less likely to agree?). Scenarios are analyzed with ANOVA (analysis of variance), which is the most straightforward way to compare the responses of participants who received different versions of a given scenario. For example, we can test whether participants who heard a story about a woman with a physical disability judged that woman any differently than did participants who heard the same story without the mention of disability. We can also determine if there were gender differences in participants' responses.

The attitude measures include some of the cornerstones of gender research: stereotype content and endorsement, essentialism, and hostile and benevolent sexism. These measures have been widely used to understand the barriers and bias that women face in the workplace and beyond (for reviews, see Dar-Nimrod \& Heine, 2011; Glick et al., 2000; Heilman, 2012). Additional measures more specific to the workplace were included as well (e.g., explanations for the gender wage-gap, and zero-sum beliefs about women's economic success), and measures from international attitude surveys provided a basis for comparison to other countries.

Scenarios measured perceptions of working women in a variety of situations: women who are the primary wage earners for their families, who are disabled, who take menstruation leave, and who self-promote (i.e., advocate for themselves in the workplace). Other scenarios examined what is considered fair in hiring and salary determinations, as well as perceptions of the relative advantages and disadvantages of the formal sector. Finally, a series of scenarios measured perceptions of sexual harassment: What kind of behavior is considered sexual harassment, and what is the expected response?

## Attitude Measures

## Stereotype content and endorsement

To measure stereotype content and stereotype endorsement (i.e., the belief that the stereotypes are accurate), participants were asked to name up to eight traits that distinguish women from men and with which they believe most people agree. Participants were free to name any trait. After providing each trait, participants were asked whether they thought that it was an accurate description of what women are like. These responses were recorded on a scale of 1 (strongly disagree) to 7 (strongly agree), with 4 as neutral.

Results. The twenty most frequently provided stereotypes are presented in Table 1. Combining related stereotypes creates four distinct groups: Women are seen as demanding (fussy, spoiled, hotheaded, selfish, and jealous), conscientious (attentive, diligent, patient, and
precise), loving (friendly, loving, good, maternal, faithful, and forgiving), and delicate (sensitive, shy, weak, sentimental, and soft).

Table 3.1. Frequency table for stereotypes.

| Stereotypes of women: Twenty most |  |  |
| :---: | :---: | :---: |
| frequent responses |  |  |

Agreement scores for each stereotype listed were averaged to create a stereotype endorsement score. For example, if a participant had listed five stereotypes and said that she strongly agreed that each was accurate, those responses (recorded as 7 s on the 1 to 7 scale) would be averaged to create a single stereotype endorsement score of 7. If a participant provided six stereotypes, agreed with three of them (recorded as 6 s ), and was neutral about the other three (recorded as 4 s ), she would have a stereotype endorsement score of 5 .

On average, participants reported agreeing with stereotypes about women: The mean score was above the midpoint of the scale $(M=5.54, S D=0.83)$. Stereotype endorsement was not predicted by gender, education, or religious affiliation, but was predicted by faith identification (i.e., the extent to which participants' faith is important to their self-image), and by the gender of
the enumerator: Participants were more likely to endorse stereotypes if their faith was important to their self-image, or if they were interviewed by a male enumerator. These findings suggest widespread acceptance of stereotypes, regardless of gender or education level. Religious affiliation (e.g., whether one is a Muslim or Christian) did not predict stereotype endorsement, but identification with faith did. The connection between faith identification and stereotype endorsement might reflect an acceptance of religious teaching (i.e., if both religions teach that men and women are different in important ways, participants who identify more with their faith may also agree more with that teaching), or it might be a proxy for something else that is not measured here (e.g., conservatism). The finding that participants who were interviewed by a female enumerator were less likely to report agreeing with stereotypes indicates that social context can shape responses as well.

Table 3.2. Regression model for stereotype endorsement.

|  | Stereotype endorsement |
| :---: | :---: |
| Male_dc | -0.03 |
|  | (0.083) |
| Age_cen | 0.00 |
|  | (0.004) |
| Education_cen | -0.01 |
|  | (0.011) |
| NorthSumatra_dc | 0.11 |
|  | (0.083) |
| urban_dc | 0.08 |
|  | (0.088) |
| Muslim_dc | 0.00 |
|  | (0.091) |
| FaithImportance_cen | 0.19** |
|  | (0.059) |
| interactreligion | -0.10 |
|  | (0.068) |
| EnumeratorMale | 0.26** |
|  | (0.085) |
| EnumeratorMatch | -0.10 |
|  | (0.082) |

Constant 5.32***

Observations 446

R-squared 0.07

Adj. R-squared 0.05
Standard errors in parentheses
*** $\mathrm{p}<0.001,{ }^{* *} \mathrm{p}<0.01, * \mathrm{p}<0.05$

## Essentialism

Participants responded to an eight-item gender essentialism scale (adapted from Rhodes \& Gelman, 2009). Items included "Gender is a very important part of what makes people who they are" and "Knowing someone's gender tells you a lot about a person." Responses were recorded on a scale of 1 (strongly disagree) to 7 (strongly agree), with 4 as neutral.

Results. Participants generally agreed with the essentialism items ( $M=5.02, S D=0.99$ ). There were no factors that significantly predicted essentialism scores, including gender, age, education, village or province.

These findings show that essentialism is generally accepted, and suggest that it is widespread (e.g., not endorsed more by men than women, or in North Sumatra more than in East Java). Essentialism is also linked to other forms of bias; it is significantly and positively correlated with zero-sum beliefs ( $r=.18, p<.001$ ), stereotype endorsement ( $r=.15, p<.001$ ), and the belief that gender equality has already been achieved ( $r=.17, p<.001$ ).

## Explanations for the gender wage gap

The gender wage gap remains a significant barrier to women's full participation and equitable treatment in the Indonesian workforce. One key to reducing the wage gap is understanding whether it is seen as fair, and if so, why. As discussed above, we know from essentialism research that people who view gender differences as natural and stable are also more likely to accept inequality (Morton et al., 2009): If there are meaningful, biologically-based differences between men and women, then different treatment and outcomes seem logical and fair. To investigate how participants view the gender wage gap-as the result of discrimination or lack of opportunities, or as the result of natural, inherent differences between men and women-we asked participants why the wage gap exists, and gave them a list of possible reasons to choose from (included in the Appendix).

Results. The most frequently chosen explanation for the gender wage gap was "biological differences between women and men," with $32 \%$ of participants attributing the wage gap to this factor. Fewer than half as many ( $14 \%$ ) chose "discrimination against women" as an explanation
for the gender wage gap. The only significant predictor of the biological differences response was village type: Participants in urban areas were more likely to select this option. The discrimination response was significantly predicted by age and education: Those who were older and more educated were more likely to attribute the wage gap to discrimination. Another frequently chosen explanation for the wage gap was "men doing more difficult or dangerous work." Older, more educated, and rural participants were all more likely to choose this option. Finally, $24 \%$ of participants chose "women's domestic responsibilities;" participants were more likely to choose this option if they were younger, less educated, in East Java, or in an urban area.

Table 3.3. Regression models for wage gap explanations.

|  | Biological <br> differences <br> between women <br> and men | Men doing <br> against women <br> are difficult | Women's <br> or dangerous <br> work | domestic <br> responsibilities |
| :---: | :---: | :---: | :---: | :---: |
| Male_dc | 0.27 | -0.11 | 0.23 | 0.19 |
|  | $(0.208)$ | $(0.274)$ | $(0.209)$ | $(0.226)$ |
| Age_cen | -.01 | $0.02^{*}$ | $0.022^{* *}$ | $-0.04^{* * *}$ |
|  | $(0.009)$ | $(0.011)$ | $(0.009)$ | $(0.010)$ |
| Education_cen | -0.012 | $0.13^{* *}$ | $0.12^{* * *}$ | $-0.08^{*}$ |
| NorthSumatra_dc | $(0.035)$ | $(0.040)$ | $(0.205)$ | $(0.033)$ |
|  | -0.13 | 0.31 | 0.016 | $-0.63^{* *}$ |
| urban_dc | $(0.203)$ | $(0.272)$ | $(0.231)$ | $(0.222)$ |
|  | $0.40^{*}$ | 0.33 | $-0.42^{*}$ | $0.60^{*}$ |
| Constant | $(0.219)$ | $(0.272)$ | $(0.231)$ | $(0.241)$ |
|  | -0.69 | $-1.97 * * *$ | $-0.616^{* * *}$ | $-0.88^{* * *}$ |
| Observations | $(0.172)$ | $(0.243)$ | $(0.174)$ | $(0.181)$ |
|  | 478 | 478 | 478 | 478 |
|  | Standard errors in parentheses |  |  |  |

All three of the most frequently chosen explanations can be seen as justifications for the wage gap: Women do different types of work, are biologically different, and have domestic responsibilities that interfere with work; therefore, they are paid less. Over half of participants (58\%) chose at least one of these explanations. The responses suggesting that the wage gap is unfair (it exists because women face discrimination or have fewer opportunities) were chosen by only $19 \%$ of participants. These findings suggest that the wage gap may be seen as justified by many. Taken together with the stereotype and essentialism findings, these results illustrate one of the barriers to equitable pay for women: Women and men are generally seen as inherently different, and stereotypes of women as more detail-oriented but weaker than men are broadly
accepted; thus, it is not surprising that the wage gap is seen most frequently as a function of biologically-based gender differences and differences in the type of work done by men and women.

Table 3.4. Frequency table for wage gap explanations.

| Reason | Frequency | Percent |
| :--- | :---: | :---: |
| Biological differences between women and men | 250 | $32 \%$ |
| Men doing more physical, difficult, or dangerous work | 230 | $29 \%$ |
| Women's domestic responsibilities | 186 | $24 \%$ |
| Discrimination against women | 108 | $14 \%$ |
| Men being paid more as head of the household | 98 | $12 \%$ |
| Women having fewer opportunities | 71 | $9 \%$ |
| Women making different choices | 59 | $7 \%$ |
| Total | 790 | $100 \%$ |

## Benevolent and Hostile Sexism

Participants responded to an eleven-item hostile sexism scale; items included "Women seek to gain power by getting control over men," and "Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for 'equality." They also responded to a seven-item benevolent sexism scale; items included "Women should be cherished and protected by men" and "Men should be willing to sacrifice their own well being in order to provide financially for the women in their lives." Responses to all items were recorded on a scale of 1 (strongly disagree) to 7 (strongly agree), with 4 as neutral.

Results. Across the sample, participants were fairly neutral on hostile sexism; the mean score was at the midpoint of the scale $(M=4.09, S D=1.14)$. We found that, consistent with previous work in other countries, men endorsed hostile sexism significantly more than women did (Glick et al., 2000). Hostile sexism was also predicted by province: Participants in North Sumatra were higher in hostile sexism.

Participants endorsed benevolent sexism more than hostile sexism $(t(541)=26.41, p<.001)$, and were likely to agree or strongly agree with the benevolent sexism items ( $M=5.62 ; S D=.74$ ). Interestingly, women endorsed benevolent sexism significantly more than men did, making Indonesia one of only five countries (of the twenty studied so far; Glick et al., 2000) where this is the case. Benevolent sexism was also predicted by education and province: Less-educated participants were more likely to endorse benevolent sexism, as were participants in East Java.

Table 3.5. Regression models for hostile and benevolent sexism.

> | Hostile Sexism | Benevolent Sexism |
| :--- | :--- |

| Male_dc | $0.67^{* * *}$ | $-0.40^{* * *}$ |
| :--- | :---: | :---: |
|  | $(0.103)$ | $(0.062)$ |
| Age_cen | 0.003 | 0.00 |
|  | $(0.004)$ | $(0.003)$ |
| Education_cen | -0.008 | $-0.03^{* *}$ |
|  | $(0.015)$ | $(0.009)$ |
| NorthSumatra_dc | $0.25^{* *}$ | $-0.17^{* *}$ |
|  | $(0.098)$ | $(0.060)$ |
| urban_dc | 0.12 | 0.02 |
|  | $(0.080)$ | $(0.070)$ |
| Constant | $3.70^{* * *}$ | $5.88^{* * *}$ |
|  | $(0.080)$ | $(0.048)$ |
| Observations | 524 | 532 |
| R-squared | 0.10 | 0.10 |
| Adj. R-squared | 0.09 | 0.09 |

Standard errors in parentheses
*** $\mathrm{p}<0.001,{ }^{* *} \mathrm{p}<0.01,{ }^{*} \mathrm{p}<0.05$

Although previous work in other countries found that benevolent and hostile sexism are positively correlated (Glick et al., 2000), in this sample, the two are weakly negatively correlated ( $r=-.10, p=.023$ ). The correlation is driven by participants in East Java ( $r=-.19, p=.003$ ), meaning that although these participants showed higher levels of benevolent sexism, those were linked to lower levels of hostile sexism.

## Zero-Sum Beliefs

Participants responded to a four-item scale of zero-sum beliefs. Three items were adapted from the International Men and Gender Equality Survey (IMAGES), and an additional item was written for this survey. Items included "When women work they are taking jobs away from men" and "When women get rights they are taking rights away from men." Responses were recorded on a scale of 1 (strongly disagree) to 7 (strongly agree), with 4 as neutral.

Results. Four items were combined into a composite of zero-sum beliefs ( $\alpha=.81$; see Appendix for the items). The overall mean was below the midpoint of the scale ( $M=2.92, S D=1.24$ ), indicating that most participants disagreed with these items. Gender, age, and education were all significant predictors of zero-sum beliefs: Participants who were more male, younger, or lesseducated were more likely to agree that jobs and rights for women necessarily hurt men. Faith identification and religious affiliation were also significant predictors: Participants who reported that their faith is important to them, or who were Muslim, were less likely to agree that advances for women necessarily hurt men. Finally, single participants were less likely to agree-and divorced or separated participants were more likely to agree-than married participants.

Table 3.6. Regression model for zero-sum beliefs.

|  | Zero-Sum Beliefs |
| :---: | :---: |
| Male_dc | 0.32* |
|  | (0.161) |
| Age_cen | -0.03** |
|  | (0.008) |
| Education_cen | -0.08*** |
|  | (0.021) |
| NorthSumatra_dc | -0.01 |
|  | (0.162) |
| urban_dc | 0.15 |
|  | (0.159) |
| FaithImportance_cen | -0.35** |
|  | (0.120) |
| Muslim_dc | -0.39* |
|  | (0.170) |
| interactreligion | 0.23 |
|  | (0.132) |
| EnumeratorMale | -0.04 |
|  | (0.157) |
| EnumeratorMatch | 0.01 |
|  | $(0.149)$ |
| wmscore_cen | -0.02 |
|  | (0.015) |
| Single_dc | -0.42* |
|  | (0.189) |
| DivorcedSeparated_dc | $3.12 * * *$ |
|  | (0.802) |
| Widowed_dc | -0.02 |
|  | (0.351) |
| Constant | 3.19*** |
|  | (0.219) |
| Observations | 303 |
| R-squared | 0.17 |
| Adj. R-squared | 0.13 |
| Standard errors in parentheses |  |
| $* * * \mathrm{p}<0.001, * * \mathrm{p}<0.01, * \mathrm{p}<0.05$ |  |

We were able to compare the results for one item, "Rights for women mean a loss of rights for men," to the results from IMAGES (though the two statements are phrased slightly differently, so that disagreement with one and agreement with the other reflect the same sentiment). In our sample, only $59 \%$ of men disagreed with the statement (i.e., answered with "strongly disagree," "disagree," or "somewhat disagree"), substantially lower than the 87-90\% of men who had a similar response in the international survey. This could mean that Indonesian men are more likely to have zero-sum beliefs about gender equality than men in Brazil, Chile, Croatia, and Mexico, and less likely than men in India. However, it is difficult to draw conclusions based on a single item, especially when the wording is different. In general, research participants are more likely to agree than to disagree with survey items-a phenomenon known as agreement bias or acquiescence (Krosnick, 1999). This alone could partially explain the discrepancy in responses; rejecting zero-sum beliefs meant agreeing with the statement in the international survey, but disagreeing with the statement in our survey.

Table 3.7. Percentage of men in the current survey disagreeing with the item "Rights for women mean a loss of rights for men," compared to the percentage of men agreeing with the item "Men do not lose out when women's rights are promoted," from the IMAGES data (2009-2010).

| Indonesia <br> (current) | Brazil | Chile | Croatia | India | Mexico | Rwanda |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $59 \%$ | $88 \%$ | $90 \%$ | $90 \%$ | $47 \%$ | $87 \%$ | - |

Overall, although a small majority of men agreed that advances for women necessarily hurt men, there was not widespread acceptance of this belief, and women were less likely to agree than men. These findings are similar to those for hostile sexism; just as overall agreement with the idea that women are intent on gaining control over men was fairly low (but higher among men), the more specific idea that women's success in the workplace will hurt men was not readily supported (but was endorsed more by men than by women). Indeed, hostile sexism and zerosum beliefs were significantly correlated ( $r=.37, p<.001$ ); participants who agreed more with hostile sexism also tended to hold zero-sum beliefs (and vice versa).

## Religious beliefs

The majority of our sample was Muslim (84\%). The next most common religion was Christianity ( $15 \%$ ), and less than one percent of participants identified as another religion.

Religious affiliation is often associated with social attitudes-whether through religious teachings or cultural norms within a religious community. However, religion itself does not directly predict a person's attitudes: Aspects of religious belief like the degree of identification with that religion, and the person's own interpretation of the religion's teachings, are also likely to be important factors in determining religion's influence.

To gauge participants' beliefs about gender roles-and the extent to which they see those beliefs as rooted in faith-we asked about specific ideas (e.g., the idea that men should provide for women) in relation to faith. Participants answered along two dimensions: whether the idea was part of their faith, and whether it was something they personally believed. Thus, the four response options were "This idea is taught in my faith, but it's not an important part of what I believe," "This idea is taught in my faith, and it's an important part of what I believe," "This idea is not taught in my faith, but it's an important part of what I believe," and "This idea is not taught in my faith, and it's not an important part of what I believe."

Results. We examined the data by gender and religion (including only Christians and Muslims, as those participants made up $99 \%$ of the sample). For each idea, participants were most likely to say that the idea was something taught in their faith and an important part of what they believe, but the percentages varied. Overall, $89 \%$ of participants said that the idea that men are the head of the household was taught in their faith and something they believed, and $86 \%$ said the same about the idea that men should provide for women. Only $50 \%$ said that the idea that men and women are equal was taught in their faith and something they believed, and $41 \%$ said this about the idea that women should stay in the home.

These results illustrate the complicated relationship between religion and gender attitudes (see Table 3.8). For example, a greater percentage of Muslims than Christians reported that their faith teaches that women belong in the home ( $68 \%$ vs. $51 \% ; \chi^{2}(1, N=610)=9.90, p=.002$ ). However, there was no significant difference in the percentage of Christians and Muslims who reported that this idea is an important part of what they believe: $54 \%$ of Christians reported believing in this idea, compared to $49 \%$ of Muslims. This shows that religious teachings alone do not determine gender attitudes. In fact, discrepancies among people of the same religion show that those teachings are not always interpreted the same way even within a religion: Among Muslim participants, men were more likely than women to say that their faith teaches that women belong in the home ( $74 \%$ vs. $64 \% ; \chi^{2}(1, N=492)=5.72, p=.017$ ).

There was greater consensus on the idea that men should provide for women, with large majorities of participants across religion and gender agreeing that this is taught by their faith, and that it is part of what they believe as well. Similarly large majorities agreed that their faith teaches that men are the head of the household, and that this is an important part of what they believe.

Large percentages of participants also reported that their religion teaches that men and women are equal ( $84 \%$ of Christians and $71 \%$ of Muslims), though the percentage agreeing with this teaching was lower; $46 \%$ of Muslims and $71 \%$ of Christians said that this is taught by their religion and an important part of what they believe. Overall, however, large percentages of both Christian (77\%) and Muslim (62\%) participants said that they agree with the idea, whether or not they reported that it was taught by their faith.

In sum, clear majorities of both Christians and Muslims believe that their religion teaches that the man is the head of the household ( $97 \%$ ), and almost as many report that this is an important part of what they believe (90\%). However, far fewer report that their faith teaches that women belong in the home ( $65 \%$ ), and even fewer consider that idea an important part of their beliefs $(50 \%)$. These findings suggest that the idea that the man is the head of the household is firmly entrenched, and any attempts to change opinions may need to draw on religious sources. However, the idea that women belong in the home is much less enshrined, and because participants were less likely to identify this belief as part of their faith, a financial argument may be more effective. These findings provide a more nuanced understanding of the role of religion and personal belief in the acceptance of women in the workforce.

Table 3.8. Frequency table for religious beliefs.

| Response | Is the idea that men are the head of the household part of your faith? |  | Is the idea that men should provide for women part of your faith? |  | Is the idea that women and men are equal part of your faith? |  | Is the idea that women belong in the home part of your faith? |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| This idea is taught in my faith, but it's not an important part of what I believe | 53 | 8\% | 61 | 9\% | 137 | 23\% | 144 | 24\% |
| This idea is taught in my faith, and it's an important part of what I believe | 568 | 89\% | 556 | 86\% | 305 | 50\% | 251 | 41\% |
| This idea is not taught in my faith, but it's an important part of what I believe | 10 | 2\% | 22 | 3\% | 88 | 15\% | 53 | 9\% |
| This idea is not taught in my faith, and it's not an important part of what I believe | 10 | 2\% | 9 | 1\% | 76 | 13\% | 161 | 26\% |
| Total | 641 | 100\% | 648 | 100\% | 606 | 100\% | 609 | 100\% |
| Total: This idea is taught in my | 621 | 97\% | 617 | 95\% | 442 | 73\% | 395 | 65\% |


| faith |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total: This idea <br> is an important <br> part of what I <br> believe | 578 | $90 \%$ | 578 | $89 \%$ | 393 | $65 \%$ | 304 | $50 \%$ |

## International Attitude Measures

Several attitude measures were adapted from international attitude surveys, including the World Values Survey (WVS), the International Social Survey Program (ISSP) and the International Men and Gender Equality Survey (IMAGES).

## Attitudes Toward Working Women

Items measuring attitudes toward working women were adapted from the ISSP and the WVS. Examples from the ISSP include "All in all, family life suffers when the woman has a full-time job" and "A man's job is to earn money; a woman's job is to look after the home and family." Responses to these items were recorded on a scale from 1 (strongly disagree) to 7 (strongly agree), with 4 as neutral. The two items from the WVS were "When jobs are scarce, men should have more right to a job than women" and "If a woman earns more money than her husband, it's almost certain to cause problems." Responses to these items were recorded as 1 (agree), 2 (neither agree nor disagree), or 3 (disagree).

Results. The four ISSP items were averaged to create a composite ( $\alpha=.63$ ). The mean score on this composite was close to the midpoint of the scale ( $M=4.31, S D=1.17$ ), indicating neither widespread agreement nor disagreement. Scores on this composite were significantly predicted by both gender and education, with men and less educated participants more likely to agree that families are better off when women do not work.

Table 3.9. Regression model for composite of attitudes toward working women.

|  | Attitudes Toward <br> Working Women |
| :--- | :---: |
| Male_dc | $0.24^{*}$ |
|  | $(0.108)$ |
| Age_cen | 0.01 |
|  | $(0.005)$ |
| Education_cen | $-0.04^{*}$ |
|  | $(0.015)$ |
| NorthSumatra_dc | 0.00 |
|  | $(0.103)$ |
| urban_dc | 0.06 |

Constant 4.24***

Observations 541
R-squared 0.03
Adj. R-squared 0.02
Standard errors in parentheses
*** $\mathrm{p}<0.001, * * \mathrm{p}<0.01, * \mathrm{p}<0.05$

We also compared the item-by-item levels of agreement to the data available from the ISSP. We included two countries in the region (Australia and the Philippines) and, because there was no data available from majority-Muslim countries, we included the data from Muslim participants in all countries.

Table 3.10. Percentage agreeing with items measuring attitudes toward working women; data are from the current study and the ISSP (2002).

| Item | Indonesia <br> (current) | Australia | Philippines | Muslims (all <br> countries) |
| :--- | :---: | :---: | :---: | :---: |
| A pre-school child is likely to suffer if <br> his or her mother works. | $45 \%$ | $40 \%$ | $57 \%$ | $63 \%$ |
| All in all, family life suffers when the <br> woman has a full-time job. | $26 \%$ | $44 \%$ | $43 \%$ | $53 \%$ |
| A job is all right, but what most women <br> really want is a home and children. | $73 \%$ | $28 \%$ | $68 \%$ | $52 \%$ |
| A man's job is to earn money; a woman's <br> job is to look after the home and family. | $70 \%$ | $22 \%$ | $72 \%$ | $51 \%$ |

The two WVS items were analyzed separately. Agreement with the first item, "When jobs are scarce, men should have more right to a job than women," was significantly predicted by participant gender: Men were more likely to agree.

Table 3.11. Regression model for item "When jobs are scarce, men should have more right to a job than women."

|  | Men Should Have More <br> Right to a Job |
| :--- | :---: |
| Male_dc | $-0.79^{* *}$ |
| Age_cen | $(0.274)$ |
|  | 0.0004 |


| Education_cen | 0.05 |
| :--- | :---: |
|  | $(0.037)$ |
| NorthSumatra_dc | 0.34 |
|  | $(0.258)$ |
| urban_dc | 0.46 |
|  | $(0.259)$ |
| Muslim_dc | -0.12 |
|  | $(0.275)$ |
| FaithImportance_cen | 0.061 |
|  | $(0.180)$ |
| interactreligion | -0.22 |
|  | $(0.209)$ |
| Observations | 432 |
| Standard errors in parentheses |  |
| $* * * \mathrm{p}<0.001, * * \mathrm{p}<0.01, * \mathrm{p}<0.05$ |  |

We also compared responses to the data collected by the Pew Research Center (the World Values Survey data was not available for this item). The percentage of participants in our sample who agreed with the item was the same as the percentage in the Pew data from Indonesia. The largest percentages agreeing were in India and Pakistan, and the smallest was in Japan, but the responses from the other countries (Jordan, Turkey, and Egypt) were comparable to those from Indonesia.

Table 3.12. Percentage agreeing with the item "When jobs are scarce, men should have more right to a job than women." (Data from the current survey and the Pew Research Center's Global Attitudes Project, 2010).

| Indonesia <br> (Current) | Egypt | India | Indonesia <br> (Pew) | Japan | Jordan | Turkey | Pakistan |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $74 \%$ | $75 \%$ | $84 \%$ | $74 \%$ | $41 \%$ | $68 \%$ | $67 \%$ | $82 \%$ |

Agreement with the second item, "If a woman earns more money than her husband, it's almost certain to cause problems," was significantly predicted by education, religious affiliation, enumerator gender, and marital status: Muslim participants were more likely to agree, and educated participants, single participants, and those interviewed by a male enumerator were all less likely to agree.

Table 3.13. Regression model for the item "If a woman earns more money than her husband, it's almost certain to cause problems."

|  | Problems if Woman Earns More |
| :---: | :---: |
| Male_dc | -0.61 |
|  | (0.320) |
| Age_cen | 0.01 |
|  | (0.016) |
| Education_cen | 0.10* |
|  | (0.045) |
| NorthSumatra_dc | -0.03 |
|  | (0.329) |
| urban_dc | 0.22 |
|  | (0.327) |
| Muslim_de | -1.28** |
|  | (0.407) |
| FaithImportance_cen | -0.33 |
|  | (0.312) |
| interactreligion | 0.39 |
|  | (0.330) |
| EnumeratorMale | 1.26*** |
|  | (0.335) |
| EnumeratorMatch | -0.12 |
|  | (0.305) |
| wmscore_cen | -0.01 |
|  | (0.031) |
| Single_dc | 0.87* |
|  | (0.365) |
| DivorcedSeparated_dc | 1.41 |
|  | (1.368) |
| Widowed_dc | 1.43 |
|  | (0.745) |
| Observations | 269 |
| Standard errors in parentheses |  |
| *** $\mathrm{p}<0.001, * * \mathrm{p}<0.01, * \mathrm{p}<0.05$ |  |

We also compared the results to data from other countries. More recent data was not available, but the item was included in the 2012 WVS , so additional comparisons will be possible when the newer data is released.

Table 3.14. Percentage agreeing with the item "If a woman earns more money than her husband, it's almost certain to cause problems." (Data from the current survey and the World Values Survey).

|  | Indonesia <br> (current) | Australia <br> $(1995)$ | Bangladesh <br> $(1996)$ | India <br> $(1995)$ | Turkey <br> $(1996)$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Agree | $37 \%$ | $44 \%$ | $56 \%$ | $54 \%$ | $63 \%$ |
| Neither | $7 \%$ | - | - | - | - |
| Disagree | $36 \%$ | $56 \%$ | $44 \%$ | $46 \%$ | $37 \%$ |

## Attitudes About Gender Equality

Three items measuring perceptions of gender equality were adapted from IMAGES: "Gender equality, meaning that men and women are equal, has come far enough already," "Gender equality has already been achieved for the most part," and "Work to achieve gender equality today benefits mostly well-to-do people." Responses were recorded on a scale from 1 (strongly disagree) to 7 (strongly agree), with 4 as neutral.

Results. The three items were averaged to create a composite reflecting attitudes about gender equality $(\alpha=.66)$. The mean score on this composite was close to the midpoint of the scale ( $M=$ $4.60, S D=1.40)$. Education predicted scores on the composite: Participants with less education were more likely to agree that gender equality has already been achieved than those with more education.

Data from IMAGES were not yet available for comparison.
Table 3.15. Regression model for composite measure of attitudes toward equality.

|  | Attitudes Toward <br> Equality |
| :--- | :---: |
| Male_dc | -0.07 |
|  | $(0.222)$ |
| Age_cen | -0.00 |
|  | $(0.011)$ |
| Education_cen | $-0.12^{* * *}$ |
|  | $(0.030)$ |
| NorthSumatra_dc | -0.24 |
|  | $(0.213)$ |
| urban_dc | 0.05 |
|  | $(0.212)$ |
| Muslim_dc | -0.23 |
|  | $(0.223)$ |


| FaithImportance_cen | -0.16 |
| :--- | :---: |
|  | $(0.133)$ |
| interactreligion | 0.11 |
|  | $(0.150)$ |
| EnumeratorMale | 0.27 |
|  | $(0.232)$ |
| EnumeratorMatch | 0.05 |
|  | $(0.209)$ |
| wmscore_cen | -0.00 |
|  | $(0.021)$ |
| Single_dc | -0.47 |
|  | $(0.251)$ |
| DivorcedSeparated_dc | -0.32 |
|  | $(0.958)$ |
| Widowed_dc | -0.08 |
|  | $(0.485)$ |
| Constant | $4.96^{* * *}$ |
|  | $(0.301)$ |
|  |  |
| Observations | 240 |
| R-squared | 0.15 |
| Adj. R-squared | 0.10 |
| Standard errors in $p a r e n t h e s e s ~$ |  |
| $* * * p<0.001, * * \mathrm{p}<0.01, * \mathrm{p}<0.05$ |  |

## Attitudes About Violence Toward Women

Two items were adapted from IMAGES to measure attitudes toward domestic violence: "A woman should tolerate violence in order to keep her family together" and "There are times when a woman deserves to be beaten." Responses were recorded on a scale from 1 (strongly disagree) to 7 (strongly agree), with 4 as neutral.

Results. The two items were not sufficiently reliable to form a composite ( $\alpha=.37$ ), and were analyzed separately instead.

The mean score for the first item, "A woman should tolerate violence in order to keep her family together," was below the midpoint of the scale $(M=3.49, S D=2.05)$, indicating that there was not widespread agreement with this item. Agreement with this item was significantly predicted by gender (men were more likely to agree), province (participants in North Sumatra were more likely to agree), and identification with faith (those who said that their faith was important to their self-image were less likely to agree). There was also a significant interaction between
religion and faith identification; the responses of Muslim participants did not vary as a function of their faith identity, but non-Muslims (who in this sample were almost always Christian) were more likely to agree that women should tolerate violence if their faith was less important to their self-image.

Figure 3.1. Interaction between identification with faith and religious affiliation for agreement with the item "A woman should tolerate violence in order to keep her family together."


Table 3.16. Regression models for the items "A woman should tolerate violence in order to keep her family together" and "There are times when a woman deserves to be beaten."

|  | Women Should <br> Tolerate Violence | Women Sometimes <br> Deserve to be Beaten |
| :--- | :---: | :---: |
| Male_dc | $0.48^{*}$ | $0.57^{* * *}$ |
| Age_cen | $(0.208)$ | $(0.139)$ |
|  | 0.01 | 0.01 |
| Education_cen | $(0.009)$ | $(0.006)$ |
|  | 0.00 | 0.04 |
| NorthSumatra_dc | $(0.030)$ | $(0.020)$ |
|  | $0.82^{* * *}$ | $0.90^{* * *}$ |
| urban_dc | $(0.208)$ | $(0.139)$ |
|  | 0.02 | -0.19 |
| Muslim_dc | $(0.219)$ | $(0.146)$ |
|  | 0.12 | 0.19 |
|  | $(0.231)$ | $(0.154)$ |


| FaithImportance_cen | $-0.38^{* *}$ | $-0.30^{* *}$ |
| :--- | :---: | :---: |
|  | $(0.141)$ | $(0.099)$ |
| interactreligion | $0.34^{*}$ | $0.28^{*}$ |
| Constant | $(0.170)$ | $(0.118)$ |
|  | $3.00^{* * *}$ | $1.36^{* * *}$ |
|  | $(0.258)$ | $(0.173)$ |
| Observations |  |  |
| R-squared | 421 | 427 |
| Adj. R-squared | 0.07 | 0.15 |
|  | Standard errors in parentheses |  |
|  | $* * * \mathrm{p}<0.001, * * \mathrm{p}<0.01,{ }^{*} \mathrm{p}<0.05$ |  |

We were also able to compare responses to this item to those from the IMAGES data, though that data set included responses only from men. Indonesian men in our sample were more likely to agree that women should tolerate violence than those in Brazil or Croatia, but less likely to agree than men in India. The percentage was similar to that in Rwanda.

Table 3.17. Percentage of men agreeing with the item "A woman should tolerate violence in order to keep her family together." Data from the current survey and IMAGES (2009-2010).

| Indonesia <br> (current) | Brazil | Chile | Croatia | India | Mexico | Rwanda |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $49 \%$ | $4 \%$ | - | $6 \%$ | $68 \%$ | - | $54 \%$ |

The mean score for the second item, "There are times when a woman deserves to be beaten," was at the lower end of the scale $(M=2.07, S D=1.38)$. Agreement with this item was significantly predicted by gender (men were more likely to agree) and province (participants in North Sumatra were more likely to agree). Identification with faith also predicted agreement: Those who said that their faith was important to their self-image were less likely to agree that there are times when a woman deserves to be beaten. There was also a significant interaction between religion and faith identification. Overall levels of agreement were much lower, but the same pattern emerged as above: the responses of Muslim participants did not vary as a function of their faith identity, but non-Muslims whose faith was less important to their self-image were more likely to agree that women sometimes deserve to be beaten.

Figure 3.2. Interaction between identification with faith and religious affiliation for agreement with the item "There are times when a woman deserves to be beaten."


The responses of men in our sample seem comparable to those of the men in most of the countries represented by the IMAGES data. Although nearly two-thirds of the men sampled in India agreed that women sometimes deserve to be beaten, the proportion agreeing was closer to one in five in our sample, the Brazilian sample, and the Rwandan sample. Percentages were even lower in Chile, Croatia, and Mexico.

Table 3.18. Percentage of men agreeing with the item "There are times when a woman deserves to be beaten." Data from the current survey and IMAGES (2009-2010).

| Indonesia <br> (current) | Brazil | Chile | Croatia | India | Mexico | Rwanda |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $17 \%$ | $19 \%$ | $10 \%$ | $12 \%$ | $65 \%$ | $6 \%$ | $21 \%$ |

Finally, both items measuring attitudes about violence were correlated with hostile sexism and zero-sum beliefs. Participants who have a hostile view toward women-believing that women are trying to gain control over or manipulate men-are also more likely to accept violence against women. In addition, participants who believe that women's gains come at the expense of men are more likely to endorse hostile sexism and violence against women.

Table 3.19. Correlations among hostile sexism, zero-sum beliefs, and violence against women items.

|  | Hostile Sexism | Zero-Sum <br> Beliefs | A woman should tolerate violence in order to keep her family together. | There are times when a woman deserves to be beaten. |
| :---: | :---: | :---: | :---: | :---: |
| Hostile Correlation | 1 | . 366 ** | . 109 ** | . $149^{* *}$ |
| Significance |  | . 000 | . 006 | . 000 |
| N | 706 | 676 | 630 | 640 |
| Zero-Sum Correlation | . $366{ }^{* *}$ | 1 | . $135^{* *}$ | .083* |
| Beliefs Significance | . 000 |  | . 001 | . 039 |
| N | 676 | 687 | 604 | 612 |
| A woman Correlation | .109** | . $135^{* *}$ | 1 | . $246{ }^{* *}$ |
| should tolerate violence in | . 006 | . 001 |  | . 000 |
| order to keep her family together. | $630$ | 604 | 641 | 636 |
| There are Correlation | . 149 ** | .083* | . 246 ** | 1 |
| times when a woman Significance | . 000 | . 039 | . 000 |  |
| deserves to be N beaten. | 640 | 612 | 636 | 655 |

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

## Support for Gender-Related Policies

Participants were asked about two policies designed to increase gender equality; these items were also adapted from IMAGES. Responses were recorded on a scale from 1 (strongly disagree) to 7 (strongly agree), with 4 as neutral.

Results. The mean score for the first item, "Do you agree with a quota system that guarantees a fixed proportion of places for women in executive positions?", was slightly above the midpoint of the scale $(M=4.93, S D=1.68)$. Agreement with this item was significantly predicted by gender, education, and province: Men were less likely to agree, as were educated participants and those in North Sumatra.

Comparing these results with the IMAGES data, the majority of men sampled in the current research agreed with the quota system idea, as did a majority of men in Brazil, Chile, and India; smaller percentages of men agreed in Croatia and Mexico.

Table 3.20. Percentage of men agreeing with the item "Do you agree with a quota system that guarantees a fixed proportion of places for women in executive positions?" Data from the current survey and IMAGES (2009-2010).

| Indonesia <br> (current) | Brazil | Chile | Croatia | India | Mexico | Rwanda |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $62 \%$ | $65 \%$ | $71 \%$ | $48 \%$ | $71 \%$ | $39 \%$ | - |

The mean score for the second item, "Do you agree with laws that promote equal salaries for men and women in the same position?", indicated general agreement ( $M=5.53, S D=1.30$ ). Agreement with this item was significantly predicted by gender, province, and village type: Men were less likely to agree, as were participants in North Sumatra and those in rural areas. Data from IMAGES were not yet available for comparison.

Table 3.21. Regression models for the items "Do you agree with a quota system that guarantees a fixed proportion of places for women in executive positions?" and "Do you agree with laws that promote equal salaries for men and women in the same position?".

|  | Executive <br> Quotas | Equal <br> Salaries |
| :---: | :---: | :---: |
| Male_dc | $-0.54^{* *}$ | $-0.27^{*}$ |
|  | $(0.175)$ | $(0.128)$ |
| Age_cen | 0.002 | -0.00 |
|  | $(0.008)$ | $(0.005)$ |
| Education_ | $-0.07^{* *}$ | -0.00 |
| cen |  |  |
|  | $(0.025)$ | $(0.018)$ |
| NorthSuma | $-0.68^{* * *}$ | $-0.48^{* * *}$ |
| tra_dc |  |  |
|  | $(0.170)$ | $(0.122)$ |
| urban_dc | -0.09 | $0.32^{*}$ |
|  | $(0.188)$ | $(0.140)$ |
| Constant | $5.46^{* * *}$ | $5.76^{* * *}$ |
|  | $(0.134)$ | $(0.098)$ |
| Observatio | 410 | 499 |
| ns |  |  |


| R-squared | 0.08 | 0.05 |
| :---: | :--- | :--- |
| Adj. R- | 0.07 | 0.04 |

squared
Standard errors in parentheses
*** $\mathrm{p}<0.001,{ }^{* *} \mathrm{p}<0.01,{ }^{*} \mathrm{p}<0.05$

## Scenarios

Several scenarios were designed to measure participants' perceptions of women in the workforce and attitudes about wages and hiring practices. These scenarios presented slightly different versions of brief stories about workers to different groups of participants, so that each participant saw only one version. Comparing responses to different versions of the same scenario allows us to determine which factors affect participants' perceptions of the workers or situations presented in the scenarios.

A few of the scenarios did not produce meaningful results-including the scenario designed to examine perceptions of women who take menstruation leave, and the scenario measuring perceptions of women who rely on parents and neighbors to watch their children versus childcare centers. One possible explanation for the null results is that the factors measured actually have no effect on perceptions of working women. However, just as significant findings do not prove that an effect exists, null findings do not prove its absence. The average social psychological effect size is fairly small, and even though small effects can have large impacts, they are also difficult to detect (Prentice \& Miller, 1992; Richard, Bond, \& Stokes-Zoota, 2003; Rosenthal, 1990). In research of this type, with multiple data collectors, translated materials, and the lesscontrolled environment of a field study, it becomes even more difficult to detect small effects. Still, several of the scenarios did produce significant results, shedding light on some of the factors that affect perceptions of working women, wages, and hiring practices.

## Disability

This scenario was designed to measure bias toward women with disabilities; specifically, are female workers with physical or mental disabilities seen less positively than female workers without a disability? Participants heard a brief story about a woman who is married with two children and works in a supermarket. In one version of the scenario, she was described as having a physical disability that did not interfere with her job; in another version, she was described as having a mental disability that did not interfere with her job; and in the third version, no disability was mentioned. Participants rated the woman on warmth and competence, and rated the appropriateness of her job. Responses were recorded on a scale from 1 (strongly disagree) to 7 (strongly agree), with 4 as neutral.

Results. There were no significant results for competence or appropriateness ratings. For ratings of warmth, there was a significant main effect of gender, with female participants rating
the woman in the scenario as warmer than male participants $(F(1,168)=5.95, p=.016)$. There was also a main effect of disability condition $(F(2,168)=3.48, p=.033)$; the woman was rated as less warm when described as having a mental disability $(M=5.13, S D=1.11)$ than when described as having a physical disability $(M=5.31, S D=1.11)$ or when disability was not mentioned ( $M=5.25, S D=1.09$ ).

Both of these effects were qualified by an interaction between participant gender and condition, such that male participants in the mental disability condition gave lower ratings of warmth to the woman in the scenario than male participants in the other two conditions, or female participants in any condition $(F(2,168)=5.07, p=.007$; Figure 3.3). These results should be interpreted with caution, as there were only ten men in the mental disability condition, but they suggest a potential gender difference in bias against women with mental disabilities. This would be consistent with previous research in the United States showing that women tend to have more positive attitudes toward marginalized groups than men do (Eagly \& Diekman, 2006; Eagly, Diekman, Johannesen-Schmidt, \& Koenig, 2004).

Figure 3.3. Ratings of warmth by participant gender and disability status condition.


## Self-promotion

Advancing in the workplace often requires drawing attention to one's qualifications and claiming credit for achievements-behavior known as self-promotion. Because this behavior indicates assertiveness, ambition, and self-interest, however, it is seen as more appropriate for men than for women (Rudman, 1998). This scenario was designed to investigate whether women who selfpromote (i.e., confidently describe their accomplishments and request a promotion) are seen
more negatively than men who self-promote (or women who are more timid). There were four versions of the scenario: In two versions, the worker described was female; in the other two, he was male. In one version of the female worker scenarios, she was described as confidently mentioning her accomplishments and requesting a promotion; in the other, she hinted that she would like a promotion without mentioning her accomplishments. The same two types of behavior were used in the scenarios describing a male worker, so that the four versions described a confident woman, a shy woman, a confident man, and a shy man. Participants rated the worker in the scenario on warmth and competence, and rated the appropriateness of his or her behavior. Responses were recorded on a scale from 1 (strongly disagree) to 7 (strongly agree), with 4 as neutral.

Results. There were no significant results for appropriateness ratings. Looking first at perceptions of female workers only, there was a significant interaction between behavioral style and participant gender for ratings of warmth $(F(1,137)=7.27, p=.008)$ : Female participants rated the woman in the scenario as marginally warmer when she was confident $(M=5.15, S D=$ 1.46) than when she was shy $(M=4.52, S D=1.68 ; t(82.95)=-1.85, p=.067)$. Male participants showed the opposite pattern, rating the woman in the scenario as less warm when she was confident ( $M=4.13, S D=1.67$ ) than when she was shy $(M=4.96, S D=1.37 ; t(54)=2.00, p=$ .050). Thus, we did find the expected effect-women who self-promoted were viewed more negatively-but only among male participants. There was no difference in perceptions of confident and shy male workers (Figure 3.4).

Figure 3.4. Ratings of warmth by participant gender and condition.


Looking at ratings of both male and female workers, there was an interaction effect such that female participants rated confident workers more positively than did male participants (there was no difference in female and male participants' ratings of workers who were shy). This relationship was significant for ratings of warmth $(F(1,261)=3.73, p=.054)$, and for ratings of competence $(F(1,276)=5.46, p=.020$; Figure 3.5).

Figure 3.5. Ratings of competence by participant gender and condition.


## Wages

An important part of reducing the gender wage gap is understanding what motivates it. A large component may be occupational and industrial segregation: Women tend to work in lower-paid jobs and industries. But what about when women and men do the same work? Does it seem fair to pay them the same salary, to pay men more regardless, or to pay a higher salary to the workers who are the heads of their households (whether they are men or women)? To investigate attitudes about wage fairness, we designed a scenario in which a man and a woman both work as cashiers in the same supermarket, and varied their marital status: In one condition, the man was single and the woman was married; in another, the man was married and the woman was single, and in the third, the man was single and the woman was explicitly identified as the breadwinner for her family. Participants were randomly assigned to hear one of the three versions of the scenario, and then were asked which seemed most fair: paying the woman more, paying the man
more, or paying both the same salary. They were then asked why; options included "The worker with a family to support should get more," and "Same pay for same position."

Results. Across all conditions, participants were most likely to say that paying both workers the same amount was most fair $\left(\chi^{2}(2, N=249)=209.08, p<.001\right.$; see Table 3.22). When participants did think it was most fair for one of the workers to receive more money than the other, they favored the worker who was described as having a family to support. When the woman was married and the man was single, they were more likely to pick the woman, and vice versa $\left(\chi^{2}(1, N=37)=22.65, p<.001\right)$; the same relationship applied when the married woman was explicitly described as the breadwinner for her family $\left(\chi^{2}(1, N=42)=34.65, p<.001\right)$. When asked why they had picked their response, participants who thought the two should be paid the same overwhelmingly said it was because the workers should get the same pay for the same position (93\%); those who had selected the worker described as married with children were most likely to say it was because he or she had a family to support ( $82 \%$ ). Only four participants thought it was most fair that the worker described as single earn more.

Table 3.22. Frequency table for three wage scenario conditions.

|  | Single woman; <br> married man |  | Single man; married <br> woman |  | Single man; <br> breadwinner woman |  | Total |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Response | Frequency | Percent | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| She is paid <br> more | 2 | $2 \%$ | 15 | $17 \%$ | 22 | $30 \%$ | 39 | $16 \%$ |
| He is paid <br> more | 18 | $20 \%$ | 2 | $2 \%$ | 0 | $0 \%$ | 20 | $8 \%$ |
| Same amount | 69 | $78 \%$ | 70 | $80 \%$ | 51 | $70 \%$ | 190 | $76 \%$ |
| Total | 89 | $100 \%$ | 87 | $100 \%$ | 73 | $100 \%$ | 249 | $100 \%$ |

In sum, participants expressed a strong preference for equal pay for equal work. When they did think that one person should be paid more, they nearly always thought it should be the worker with a family to support. Participants based their decisions on egalitarianism or pragmatism, not on the gender of the worker. Of course, there are workplaces where men are paid more than women for the same work. Perhaps the job described in the scenario (supermarket cashier) is one in which men and women are assumed to do exactly the same work-as opposed to jobs in which the men are assumed to perform more difficult tasks (e.g., waiters carrying heavy trays on behalf of their female coworkers). Or perhaps the assumption that men are the primary wage earners for their families is seen as justification for unequal wages; in some cases, women who are married with children may not be hired at all, meaning that male workers may be assumed to be the only ones with families to support, and thus deserving of a higher wage. These findings suggest that wage discrimination may be reduced by appealing to individuals' sense of fairness
(equal pay for equal work was strongly endorsed) and by emphasizing that single women (and men) may be supporting family members as well (e.g., elderly parents or younger siblings).

## Hiring

Another obstacle to women's full participation in the formal sector is hiring discrimination; thus, it is important to understand which factors predict hiring preferences. One possibility is job type: There is substantial occupational segregation in Indonesia, which suggests that women might be preferred for female-typed jobs (i.e., jobs that are perceived as requiring stereotypically female traits), whereas men might be preferred for male-typed jobs. Another factor is the candidate's qualifications: Is the most qualified candidate preferred, or are other factors more important? Do employers prefer to hire workers who have families to support over those who are single, and does this vary by worker gender (e.g., for factory jobs, are single women preferred over single men)? Finally, all else equal, are employers just as likely to hire women and men, or are men preferred-and, if so, does this preference outweigh other factors like qualifications or job type?

There is evidence for the importance of each of these factors; for example, more-qualified workers are likely to do better on the job market overall than less-qualified workers. But how are they measured against each other when a hiring decision is made? For example, if one candidate has better qualifications, but the other has a family to support, which factor is weighed more heavily? Surveying employers about how they choose employees will not necessarily garner honest responses. First, people often do not consciously recognize their actual reasons for making certain choices (Nisbett \& Wilson, 1977). Second, when gender bias leads to a preference for male candidates, individuals may point to other reasons, claiming a preference for whatever qualifications the male candidate has and discounting the qualifications of the female candidate. For example, in one study, participants were asked to choose an employee for a construction job and were presented with a male candidate and a female candidate (Norton et al., 2004). When the female candidate was better educated and the male candidate was more experienced, participants chose the male candidate more often, and ranked experience as the more important qualification. However, when the female candidate was more experienced, and the male candidate was better educated, participants still chose the male candidate, this time ranking education as the more important qualification.

The scenario we designed to investigate hiring preferences manipulated job type and candidate qualifications. In each case, a company was described as needing a worker to operate a machine; the job was said to pay twice the minimum wage. In half of the scenario versions, the job was female-typed (i.e., described as requiring attention to detail, a stereotypically female trait); in the other half, the job was male-typed (i.e., described as requiring strength, a stereotypically male trait). The candidates were described such that one had more experience, but the other had a family to support. In one case the female candidate had a family to support, and in the other the male candidate had a family to support. Thus, the four versions were: female-typed job, female candidate with family to support, male candidate with more experience; female-typed job, male
candidate with family to support, female candidate with more experience; male-typed job, female candidate with family to support, male candidate with more experience; and male-typed job, male candidate with family to support, female candidate with more experience.

If participants preferred that women do female-typed work and that men do male-typed work, they should have responded such that the candidate's gender matched the gender-typing of the job, regardless of the candidate's experience or financial need. If they were most interested in making sure men have access to high-paying jobs, they should have chosen the male candidate, regardless of the gender-typing of the job or candidate qualifications. If they were most interested in workers being able to support their families, they should have chosen the candidate with a family, regardless of the candidate's gender or the gender-typing of the job. And if they were most interested in choosing the most qualified candidate, they should have chosen the candidate with more experience, regardless of the candidate's gender or the gender-typing of the job.

Results. If participants were choosing between the two candidates at random, we would expect to see each candidate selected $50 \%$ of the time. To determine whether participants' choices were affected by the gender-typing of the job (male-typed or female-typed), the candidate's background (more experience or a family to support), or the candidate's gender, we examined the candidate selections along each of these factors, and compared the percentages to $50 \%$. First, we determined whether participants had chosen the candidate who matched the gender-typing of the job (i.e., the percentage of participants who chose the female candidate when the scenario version described the job as requiring attention to detail or chose the male candidate when the job required physical strength). We found a slight preference for the candidate whose gender would typically be thought to match the skills required for the job (53\%), but this was not significantly different from $50 \%$. There was a stronger preference for the candidate who was identified as the breadwinner; $57 \%$ of participants chose the female breadwinner over the man with more experience, or chose the male breadwinner over the woman with more experience. This percentage was significantly different from $50 \%\left(\chi^{2}(1, N=339)=7.08, p=.008\right)$. Finally, we looked at candidate gender alone: Were participants more likely to pick the male candidate, regardless of the job description or the way the candidate's background was described? There was a significant difference here as well: Participants picked the male candidate $66 \%$ of the time $\left(\chi^{2}(1, N=341)=34.84, p<.001\right)$. Preference for the male candidate was significantly stronger than preference for the breadwinner $\left(\chi^{2}(1, N=341)=11.23, p<.001\right)$.

Table 3.23. Frequency table for four hiring scenario conditions.

|  | Female-typed job; <br> she is breadwinner; <br> he is single but has <br> more experience | Female-typed job; <br> he is breadwinner; <br> she is single but has <br> more experience | Male-typed job; she <br> is breadwinner; he <br> is single but has <br> more experience | Male-typed job; he <br> is breadwinner; she <br> is single but has <br> more experience | Total |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Choice | Frequency | Percent | Frequency | Percent |  | Percent | Frequency | Percent | Frequency | Percent 1


| emale <br> candidate | 37 | $40 \%$ | 28 | $33 \%$ | 31 | $41 \%$ | 18 | $20 \%$ | 114 | $34 \%$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Male <br> candidate | 55 | $60 \%$ | 56 | $67 \%$ | 44 | $59 \%$ | 70 | $80 \%$ | 225 | $66 \%$ |
| Total | 92 | $100 \%$ | 84 | $100 \%$ | 75 | $100 \%$ | 88 | $100 \%$ | 339 | $100 \%$ |

In sum, participants showed some preference for hiring breadwinners over those with more experience, but showed an even stronger preference for male candidates over female candidates-indicating that when all other factors are equal (i.e., qualifications are exactly the same), gender bias can still affect hiring decisions. This scenario did not capture any preference for occupational segregation (i.e., preferring female candidates for jobs that require attention to detail, and male candidates for jobs that require strength). It is possible, however, that the type of job described (i.e., operating a machine) was assumed to be more appropriate for men regardless of the additional skill requirements, and that that helps to explain why the male candidate was preferred.

## Primary earner status

The traditional role of women, in Indonesia as elsewhere, has been to stay in the home (Dzuhayatin, 2003). On the other hand, many families depend on the woman's income to make ends meet. It is possible that traditional resistance to women in the workplace may be reduced when the woman works out of financial necessity. Participants heard one of four different versions of a scenario about a woman who works. In one case, the woman was married, and her husband also worked; in the other three versions, she was the only wage-earner (because her husband was disabled, deceased, or because she was unmarried). When a woman is the primary earner (particularly when she has children, as in the married versions of the scenarios), is she seen more positively than when she has a husband who also works? Participants rated the woman on warmth and competence, and rated the appropriateness of her job. Responses were recorded on a scale from 1 (strongly disagree) to 7 (strongly agree), with 4 as neutral.

Results. There were no significant results for competence or appropriateness ratings. There were also no differences in ratings of warmth for the scenarios in which the husband was disabled or deceased, or the woman was unmarried, so these were combined into one condition, representing scenarios in which the woman is the primary earner. This condition was contrasted with the condition in which the woman has a husband who also works (meaning that she is not the primary earner). There was a main effect of gender, across conditions, female participants ( $M=5.12, S D=1.33$ ) rated the woman in the scenario as warmer than the male participants did $(M=4.80, S D=1.48)$. There was also a significant interaction between participant gender and condition $(F(1,204)=3.81, p=.052)$; when the woman was not the primary earner, she was rated less positively by male participants ( $M=4.32, S D=1.52$ ) than by female participants ( $M=$ $5.27, S D=1.34 ; t(50)=-2.38, p=.021)$. There was no difference in ratings when she was the
primary earner. Additionally, male participants rated the woman in the scenario as warmer when she was the primary earner $(M=5.02, S D=1.42)$ than when she was not $(t(69)=1.88, p=.064)$.

Figure 3.6. Ratings of warmth by participant gender and primary earner status condition.


## Sexual harassment

We took a two-part approach to studying sexual harassment, asking both about actual encounters with sexual harassment and about perceptions of hypothetical harassment scenarios. In the first part of the survey, we asked a subset of participants whether sexual harassment was a concern in their workplace, and if so, what action the workers had taken (if any). This question was intentionally broad, encompassing encounters in which the participant witnessed or heard about sexual harassment and those in which the participant directly experienced the harassment, so that participants would feel more comfortable answering honestly. Sexual harassment was defined for the participants as "sexual language or sexual touching that makes you feel uncomfortable." We were also interested in participants' own understanding of what constitutes sexual harassment, and, regardless of whether they had ever encountered it, what they thought an appropriate response would be. Thus, in the second part of the survey, another subset of participants (overlapping with the first group) was read a few hypothetical scenarios that described harassment varying in severity. For the sake of efficiency, participants in this subset were randomly assigned to two groups; each group responded to three or four scenarios, so that responses were collected for a total of seven scenarios. Each scenario was a short, two- to threesentence description of behavior experienced by a woman at her workplace. For example, one scenario read: "Ms. X found using the company's one and only restroom to be an uncomfortable
experience. The male employees continually made holes in the wall so they could watch the female employees." The scenarios varied in severity from obscene gestures not directed at the female employee to a direct request for a sexual relationship, with negative consequences for the female employee's job status if she refused. Participants were asked whether they considered each incident to be sexual harassment, and then chose which actions they thought they would take if the incident happened to them. The scenarios and list of possible actions were adapted from Baker, Terpstra, and Larntz (1990; see Appendix for full text of all scenarios).

There are a few advantages to taking a two-part approach (i.e., asking both about actual encounters with sexual harassment and about perceptions of hypothetical harassment scenarios). First, we are better able to interpret participants' reports of their encounters with sexual harassment if we understand what they believe sexual harassment includes. That is, even though we defined sexual harassment when we asked participants whether they had encountered it, they might have relied on a preexisting understanding of the term that differed from the definition we provided-or they might have accepted our definition, but applied it in an unexpected way. Giving examples of specific behavior and asking participants whether they consider the behavior to be sexual harassment allows us to better determine what criteria participants are using when they report whether sexual harassment is occurring in their workplace. Is there consensus from the sample about what constitutes sexual harassment, and if so, does it match the definition we provided? This approach can also help us better characterize the prevalence of sexual harassment. Obviously, there is room for error when relying on participants who have encountered sexual harassment to both identify it as such when it occurs and to report it to the enumerator when asked. Because behavior that is not identified as sexual harassment will not be reported, understanding what is and is not considered sexual harassment is an essential step in characterizing its extent. By asking a broad sample of participants whether the behavior in hypothetical scenarios constitutes sexual harassment, we can determine what type of behavior is likely to be identified as sexual harassment in the first place.

Second, this two-part approach allows us to better understand reactions to sexual harassment. That is, in addition to learning about what actions are actually taken in response to sexual harassment (from the participants who report sexual harassment in their workplace), we obtained responses to hypothetical scenarios from many more participants, revealing which actions are favored by the larger community. Discrepancies here are important: If the community favors a confrontational response, but those who actually experience sexual harassment are too frightened to confront their harasser, they might be blamed for their inaction (Woodzicka \& LaFrance, 2001).

Finally, we were able to examine the effect of defining sexual harassment for participants. By comparing responses to the scenarios from participants who had previously answered questions about sexual harassment in their workplace (and heard the definition as part of those questions) to those who had not answered those questions, we could determine whether participants who
receive a definition of sexual harassment have different perceptions of what constitutes harassment than those who do not.

## Consensus on what constitutes sexual harassment

Overall, there was a high level of agreement that the behavior described in the scenarios constituted harassment (Table 3.24, in the Appendix). The percentage of participants that labeled each scenario as harassment ranged from $83 \%$ (for the scenario in which male employees made obscene gestures that were not directed at the female employee) to $98 \%$ (for the scenario in which male employees made holes in the restroom wall in order to watch the female employees).

Indonesian participants were even more likely to agree that the behaviors described were sexual harassment than the American participants who responded to the same scenarios in earlier work (Baker, Terpstra, \& Larntz, 1990). Responses to the more severe behavior were similar (e.g., $98 \%$ of the American sample and $95 \%$ of the Indonesian sample labeled the relationship request with job threat as harassment), but there were large differences for the less severe behavior (e.g., $9 \%$ of the American sample considered obscene gestures not directed at the employee to be harassment, compared to $83 \%$ of the Indonesian sample).

There are several possible reasons for this discrepancy; there are differences in culture, time, methodology, and sample characteristics across the two studies. For example, each participant in the American sample saw eighteen scenarios, and was able to read through them all at once. They might have assumed that researchers were interested in differences in how various scenarios were perceived, and rated them accordingly. Indonesian participants heard and responded to one scenario at a time, and heard only three or four in total, preventing them from drawing conclusions about the entire group of scenarios before making their judgment on each one individually. Thus, without the ability to compare each scenario against all of the others and look for differences, as the American sample did, the Indonesian sample may have simply assumed that the researchers would not be asking whether an incident constituted sexual harassment if they did not already believe that it did.

Nonetheless, the variation in responses tells us that the Indonesian participants were considering the content of the scenarios in their responses: More severe behavior was more likely to be labeled harassment than was less severe behavior. This shows a general understanding of what sexual harassment is, and what kind of behavior is more likely to qualify as sexual harassment.

## Reactions to sexual harassment

We also found a consistent pattern in how participants said they would respond to the behavior. There was a preference for official channels; the most frequently chosen action was "report it to someone more senior at your company," selected $40 \%$ of the time. Other common responses were "report it to a co-worker at your company" and "react verbally (e.g., tell the person to stop)," each selected $25 \%$ of the time (Table 3.24). This is similar to how American participants
responded; the two most frequent choices were to report the behavior (either internally or externally) and to respond verbally.

But to what extent do these hypothetical choices reflect what participants would actually do if faced with sexual harassment? Indonesian participants certainly seem to understand that reporting harassment is an appropriate choice, but would they feel comfortable doing so? One study from the United States suggests that responses to hypothetical and actual sexual harassment can vary quite a bit: Participants randomly assigned to one group imagined how they would respond to inappropriate questions in a job interview, and those randomly assigned to the other group actually received those questions in a realistic mock job interview (Woodzicka \& LaFrance, 2001). Participants' imagined responses were more forceful than the responses of those who actually encountered the questions; many in the latter group did not respond at all, and when they did, their responses were less confrontational than the imagined responses had been.

To determine how closely responses to hypothetical situations match reports of actual behavior in our sample, we examined responses to the questions about sexual harassment in the participant's workplace. Specifically, when participants said that sexual harassment was a concern, what actions did they report were taken in response?

Interestingly, the actions participants reported in response to actual workplace sexual harassment were similar to the actions they selected in response to hypothetical sexual harassment. The most common action reported was discussing the harassment with a supervisor or manager (reported by $48 \%$ of participants who identified sexual harassment as a concern in their workplace; see Table 3.25). This was also the most common action selected in response to the hypothetical scenarios ( $40 \%$ ). The next most frequent action actually taken was discussing the harassment with a coworker ( $35 \%$ ), which is comparable to the $25 \%$ of participants who selected this option in response to the hypothetical scenarios. Only $18 \%$ said they did nothing when they encountered sexual harassment (higher than the $5 \%$ who chose this when presented with hypothetical scenarios). In sum, participants' responses to hypothetical situations seem to be in line with actual responses, though, unsurprisingly, more participants reported that nothing was done in the face of actual sexual harassment than chose to do nothing in response to hypothetical harassment.

Table 3.25. Actions reported by participants who identified sexual harassment as a concern in their workplace.

| Do/did workers in your workplace take any action about concerns with <br> sexual harassment? (Choose all that apply) |  |  |
| :--- | :---: | :---: |
| Action | Frequency | Percent |
| Discussed among co-workers | 14 | $35 \%$ |
| Discussed with supervisor or manager | 19 | $48 \%$ |
| Discussed with the trade union representative | 2 | $5 \%$ |


| Considered quitting | 3 | $8 \%$ |
| :--- | :---: | :---: |
| Threatened a strike | 0 | $0 \%$ |
| Caused a strike | 1 | $3 \%$ |
| No, nothing. | 7 | $18 \%$ |

## Effects of receiving a definition of sexual harassment

We also compared the responses of participants who had been given a definition of sexual harassment earlier in the survey, and those who had not (Table 3.26). In most cases, participants who had received the definition were more likely to label behavior as sexual harassment (e.g., $95 \%$ of those who had heard the definition labeled an unwelcome arm around the shoulders as sexual harassment, compared to $90 \%$ of those who did not hear the definition). In one case, however, this pattern was reversed: Participants who had heard the definition were less likely to label obscene gestures not directed at the female employee as sexual harassment ( $77 \% \mathrm{vs} .90 \%$ ). There were too few cases overall to determine whether these differences were significant, though four of the seven approached significance.

Table 3.26. Differences in perceptions of sexual harassment among participants who did and did not receive a definition of sexual harassment.

| Scenario | $\%$ Perceiving as <br> harassment with <br> definition | $\%$ Perceiving as <br> harassment <br> without definition | Difference (with <br> definition- <br> without <br> definition) |
| :--- | :---: | :---: | :---: |
| Requests affair; positive consequences for job if accepted | $98 \%$ | $91 \%$ | $8 \%$ |
| Obscene gestures directed at her | $98 \%$ | $89 \%$ | $9 \%$ |
| Holes in restroom wall | $100 \%$ | $95 \%$ | $5 \%$ |
| Coworker staring | $87 \%$ | $82 \%$ | $5 \%$ |
| Requests affair; negative consequences for job if denied | $98 \%$ | $93 \%$ | $5 \%$ |
| Puts his arm around her | $95 \%$ | $90 \%$ | $5 \%$ |
| Obscene gestures not directed at her | $77 \%$ | $90 \%$ | $-13 \%$ |

These findings suggest that receiving a definition of sexual harassment does influence participants' determinations of what behavior qualifies; in general, participants become more likely to label behavior as harassment after receiving the definition. Interestingly, the wording of the definition may also play an important role. The definition referred to "sexual language or sexual touching," and the scenario that was labeled harassment less frequently after hearing this definition was one involving gestures (specifically, obscene gestures not directed at the employee). Perhaps if the definition had included gestures as well as language and touching, participants would have been more likely to label this behavior as harassment. It is also true that
participants received the definition in the context of a question asking about their own experience with sexual harassment (i.e., whether it is a concern in their workplace), so the content of the question itself may have influenced their responses to the scenarios. Perhaps having already been asked about sexual harassment earlier in the survey made the topic feel more personally relevant when it came up again-or perhaps the participants assumed that the researchers were very interested in sexual harassment, and would expect a "yes" when asking whether a given behavior counted as harassment. Although it is not possible to disentangle the effects of the definition from those of the rest of the question, the lower rate of labeling the obscene gestures as harassment suggests that the definition itself did have some impact.

## Implications

The high levels of labeling overall suggest that participants are fairly attuned to potentially harassing behavior. Even if participants were labeling behavior as harassment only because they thought that was the desired response, that means that at the very least, they recognize that the behavior described might be considered by some to be sexual harassment. The preference for certain actions over others suggests consensus on the appropriate response to sexual harassment - even if participants' responses reflect what they think one could or should do as opposed to what they think they would actually do. Perhaps awareness of sexual harassment increased following the release of sexual harassment guidelines in March of 2012; a discussion of the guidelines was broadcast over the radio in both Surabaya and Medan, the largest cities in the provinces in which the survey was conducted.

In sum, using this two-part approach allowed us to gather data on community perceptions of what constitutes sexual harassment, and what the most appropriate reactions are. We were able to use these perceptions to put reports of sexual harassment in context (e.g., by determining what kind of behavior is more or less likely to be identified as harassment), and to examine the match between the actions preferred in response to hypothetical situations, and those actually reported by workers who have encountered sexual harassment. We found that overall, participants do seem to understand what sexual harassment is, that there is consensus on the appropriate reactions, and that the preferred reactions match what participants said was actually done when sexual harassment occurred. This match is an encouraging sign; even if participants are simply reporting what they think they should do in both cases, it does demonstrate that there is consistency regarding which behaviors are seen as appropriate. The scenarios, then, could be a useful tool for characterizing current attitudes about appropriate action and could serve as a quick way of determining the impact of policy interventions. For example, hypothetical scenarios could be used to determine the effect of posting workplace signs about sexual harassment on workers' attitudes about harassment. A large sample of workers could be surveyed before and after the intervention, rather than relying solely on reports from workers who experience harassment.

We were also able to make a cross-cultural comparison to another sample. Rates of labeling behavior as harassment were higher than in an American sample, but this could be due to methodology differences. And finally, we found that providing a definition of sexual harassment does seem to affect how participants determine what counts as harassment - though the wording should be chosen carefully.

These findings provide several avenues for future research. However, by looking at sexual harassment from multiple angles-collecting data from a broader community sample as well as from those who report harassment, and using hypothetical scenarios as well as reports of actual behavior-this work represents an important step forward in our understanding of this complex issue.

## Discussion

In sum, we found a pattern of attitudes that illuminates some of the barriers to equitable treatment and pay for women in the workforce. First, we found that participants generally agree with stereotypes about women, and that these stereotypes fall into four broad groups: Women were described as demanding, conscientious, loving, and delicate. These stereotypes have clear implications for occupational and industrial segregation: If women are considered more delicate and conscientious than men, they will also be seen as better suited for detail-oriented work and worse suited for dangerous or physical work. The delicate stereotype also corresponds to benevolent sexism, which is the view of women as fragile and in need of men's protection. Benevolent sexism was widely accepted, endorsed even more by women than by men. Essentialism was also widely accepted, indicating that participants see these gender differences as stable, inherent, and meaningful. Thus, women tend to be seen as fundamentally different from men in important ways, and those differences include job-relevant traits. These perceptions also appeared in participants' explanations for the gender wage gap: The most frequent explanations were biological differences between men and women, and the fact that men do more difficult or dangerous work. These responses were reflected in the data on participants' activities as well-men were much more likely to do difficult physical work, like farming, and women were more likely to be involved in housework and childcare.

There was less agreement with hostile sexism (the view that women are trying to gain control over men), violence against women, or zero-sum beliefs (the idea that women's gains, particularly in the workforce, necessarily come at the expense of men). These views were all linked, but overall agreement was low in every case. Perhaps because the higher status of men and their role as head of the household are culturally and legally sanctioned, women's achievements are not seen as threatening.

We also found that religious beliefs are an important component of attitudes-but that the importance one places on faith should be considered in conjunction with religious affiliation. Faith importance-taken alone, or combined with religious affiliation-was a better predictor of
attitudes than religious affiliation alone. The results also showed that participants have different interpretations of their religion's teachings, and that participants' beliefs do not necessary line up with what they say their religion teaches. For example, while almost two-thirds of participants say that their religion teaches that women belong in the home, only half of participants say that this idea is an important part of what they believe. Large majorities of participants say that their religion teaches (and they believe) that men are the head of the household, however. This pattern of beliefs matches the view of women promoted by the Indonesian government: Women are expected to help provide for the family, but also to remain dependent on their husbands, who are the head of the household (La Botz, 2001).

There was some ambivalence in attitudes toward working women; a majority of participants agreed that men have more right to scarce jobs (with men agreeing more than women), but participants were generally split on whether women earning more than their husbands is a problem, and whether family life suffers when women work (with men and less-educated participants more likely to agree that it does). The scenarios identified some factors that affect perceptions of working women, though only among men: Men viewed working women with mental disabilities less positively, and viewed women who work out of clear financial need (i.e., those without a working husband) more positively than women with a husband who works as well. Men also viewed women who self-promote less positively, which points to another obstacle for women in the workforce: Men are more likely to be in a position of authority, but are also more likely to view women who seek to advance less positively than women who behave more timidly.

Participants did show a strong preference for equal pay for equal work, and a weaker preference for paying breadwinners more than single employees, but these effects may have been specific to the type of job described in the scenario. This preference for breadwinners appeared in hiring priorities as well, but in that case it was secondary to the preference for male candidates over female candidates. Again, it is possible that the specific type of job played a role in these preferences.

In the sexual harassment scenarios, we found high levels of agreement that the behavior described was sexual harassment. There was also consensus on which actions should be taken in response, and these actions matched those actually taken in response to sexual harassment in participants' workplaces. As a note of methodological interest, we found that providing a definition of sexual harassment does seem to affect participants' understanding of what counts as harassment - and that the wording should be chosen carefully.

Finally, participants showed some ambivalence about progress toward gender equality, but tended to agree that equality has come far enough (this was true especially for participants with less education). There was support for policies to increase gender equality, however; a majority of participants agreed with the idea of a quota system to increase women's representation in
executive positions, and there was even stronger support for equal wage laws. In both cases, men were less supportive than women.

## Conclusions

Overall, we found a mixture of traditional attitudes and pragmatism. Women were seen as better suited to certain types of work, and in need of protection from men; gender differences were viewed as innate and unchanging. Although these ideas are often seen as positive (e.g., women naturally have skills that men lack, and are worthy of protection and special care), they can actually limit women's opportunities-stereotypes that paint women as better suited to certain types of jobs prevent them from holding other, better-paying jobs. Additionally, a view of gender in which trait differences between men and women are innate and unchanging leads to increased acceptance of inequality (Morton et al., 2009).

Participants were also pragmatic, however. They were generally open to the idea of women working outside of the home (but were more likely to approve of women who were secondary wage earners). Participants supported the idea of equal pay for equal work-both when determining the salaries of two workers in the same job, and when asked about laws promoting equal pay. There was also a preference for breadwinners in hiring and payment, which is likely to translate into a preference for men given participants' strong endorsement of the idea that men are the head of the household. Another way to promote equal pay, then, might be to build on this preference for breadwinners, expanding the concept to include women who are primary wage earners and workers who support elderly parents and younger siblings. Equal pay could be portrayed as a way to ensure that all families are provided for.

There were generally more conservative attitudes among men, the less educated, and those in North Sumatra. The results also showed a complicated relationship between religion and attitudes: Participants' interpretations of teachings vary, and their personal beliefs do not always follow what they believe their religion teaches. The personal importance of faith plays a role as well. When participants believe that an idea is key to their faith (e.g., that men are head of the household), attempts to change that idea will probably be more successful if based on religious sources (e.g., religious texts that promote gender equality).

## Chapter 4: Women and the Informal Economy in Indonesia

## Part 1: Preferences of Participants in the Informal Sector

The informal economy plays an important role as a source of employment and income in developing countries. It is estimated that as much as 60 percent of economic activity in the developing world takes place in the informal sector. Despite its central role, there can be a range of downsides to working in the informal economy, in particular the lack of legal protections. Furthermore, entrepreneurs who place their business in the informal rather than the formal sector may have limited access to credit.

Why would individuals choose to work or open a business in the informal instead of the formal sector? Generally speaking, workers enter the informal economy when formal jobs are unavailable or there are other obstacles to gaining formal employment. Individuals may seek out the informal economy as a means of supplementing their income, or prefer it because of its greater degree of independence and flexibility. For entrepreneurs, the informal sector may be more profitable than the formal sector, and it can offer a way of earning an income and avoiding government regulations or taxation. Wage levels can also affect whether individuals prefer the informal or the formal sector. Magruder (2013) found that an increasing minimum wage in Indonesia led to a contraction of informal activities in the non-tradable goods sector. However, in the tradable goods sector (such as textiles), an increasing minimum wage led to a growth in informal activities.

Around the world, we observe differences in how women and men utilize the informal sector both in terms of employment and entrepreneurship. In most developing countries, a higher percentage of women enter the non-agricultural informal economy than men, although some exceptions exist (e.g., Egypt and Sri Lanka). Similarly, a higher percentage of women than men work as informal, unregistered workers in the formal sector. In Indonesia, 60 to 70 percent of workers are informally employed, the bulk of whom are in the agricultural sector (Cuevas et al., 2009, p. 1; Firdausy, 2000).

Given the central role of the informal sector in Indonesia, it is important to understand how both entrepreneurs and workers view this sector. We are also particularly interested in how gender shapes individuals' perceptions about the informal sector. In the following analysis, we use the 2012 Women in Leadership survey data to examine the determinants of entrepreneurs' preferences for the informal versus the formal sector. Specifically, we are interested in seeing if gender and a range of other factors influence how entrepreneurs (currently in the informal sector) perceive formalization.

## Gender and Entrepreneurs in Indonesia's Informal Sector

Why would entrepreneurs not want to formalize their businesses? One factor that discourages formalization is high governmental barriers to market entry. When the costs of legally opening a
business are perceived as very high-including burdensome regulatory procedures, high financial costs, and a lengthy bureaucratic delay-entrepreneurs may prefer to keep their business in the informal sector. The evidence suggests that higher levels of market entry regulation are positively correlated with a larger informal economy (see Klapper, Amit, Guillén, \& Quesada, 2007). Higher regulatory barriers can also lead to more corruption, which forces entrepreneurs to pay bribes and extortion fees in order to open a firm (see Djankov, La Porta, Lopez-de-Silanes, \& Shleifer, 2002). The "discretion in interpretation and implementation" of regulation can also impose a burden on entrepreneurs and result in a larger informal economy (Kauffmann et al., 1997, p. 2). In short, excessive regulation can drive firms "underground" (Freidman et al., 2003, p. 481).

Does gender play a role in shaping entrepreneurs' preferences for the informal versus the formal sector? Abundant empirical evidence shows that women tend to prefer the informal to the formal sector. In Nicaragua, Poncela and Steiger (1996, p. 53) hold that "women look to the informal sector to better their living standards and achieve more control over their employment and income for the direct benefit of themselves and their families. Women prefer the informal sector, and it prefers them." In Iran, Bahramitash and Salehi Esfahani (2011, p. 18) state that "many women prefer the informal sector because it allows them to stay with their family." Research in Togo also finds that women prefer the informal sector (United Nations, 2009, p. 15). Similar findings emerge in studies of other countries as well (see Cunningham, 2001; World Bank, 2007, p. 21).

A woman's decision to work in the informal or formal sector is often contingent upon how well she feels that she can negotiate her responsibilities as a wife and a mother. The informal sector can provide greater flexibility in terms of working hours, the pace of work, the job's proximity to home, and the ease of exit and entry (Manning, 1998). Family planning programs also increase a woman's control over when and how many children to have, strengthening her individual agency and enabling her to pursue higher education or professionalism (Radhakrishnan, 2010). Greater control over childbearing decisions often results in more women entering the formal sector and increasing their working hours. Correspondingly, women engaged in informal sector employment or entrepreneurship tend to have more children than women engaged in formal sector activities.

## Data, Methods, and Findings

In order to understand how gender and other factors shape Indonesian entrepreneurs' perceptions of formalization, we identified 139 participants in the dataset who are currently entrepreneurs in the informal sector, either as employers or own account workers who are self-employed. These participants were asked the question "Do you want to formalize your business?" and answered "yes" or "no." In the total sample there were 55 men and 84 women. Given the oversampling of women, we include a post-stratification weight in all of the regressions.

Can we confirm that women in Indonesia are less likely to prefer formalization than men, as the bulk of research on other countries suggests? Of the female entrepreneurs in the dataset, 55 percent reported a preference to formalize, while only 48 percent of male entrepreneurs reported this preference. Even though a slightly higher percentage of women prefer formalization, a Chisquared test indicates that the difference between men and women is not statistically significant $\left(\chi^{2}=0.68, p=.41\right)$. Thus, we do not find that gender is a statistically significant determinant of entrepreneurs' preferences for formalization. Indonesia appears to diverge from many countries around the world in that simply being a woman does not make an entrepreneur more likely to prefer the informal sector. If anything, women seem less likely to prefer the informal sector.

Next, we utilize regression analysis to more fully examine the relationship between gender and entrepreneurs' preferences for formalization in Indonesia. Given the binary nature of the dependent variable, we employ logistic regression using Huber-White standard errors and a poststratification weight due to the gender imbalance in the dataset. Our independent variables are entrepreneurs' gender, age, marital status, education, urban/rural location, provincial location, and the nature and duration of the business. ${ }^{1}$ The results of all regressions appear in Table 4.1. The dependent variable is the desire to formalize ("yes" $=1 ; "$ no" $=0$ ).

The results in Column 1 of Table 4.1 indicate that being a woman is not a statistically significant predictor of an entrepreneur's preference for formalization. Instead, years of education and living in North Sumatra are positive predictors of a desire to formalize. Entrepreneurs with more education and those who live in North Sumatra (instead of East Java) are more likely to prefer formalization, all else equal.

While the results confirm that gender alone is not a statistically significant predictor of the preference to formalize (further confirming the results of the Chi-squared test above), gender may interact with other factors to shape this preference. For instance, there may be significant differences between the preferences of urban vs. rural women, educated vs. uneducated women, or married vs. unmarried women. In order to pursue these more nuanced relationships, we employ logistic regression and construct a number of interaction terms to add to the model in Column 1. Seven interaction terms were created and we reran the model using each of them. The results appear in Columns 2-8 in Table 4.1.

Table 4.1. Determinants of the Preference to Formalize among Indonesian Entrepreneurs

| Independent | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Variable |  |  |  |  |  |  |  |  |  |

[^0]| Age | -0.014 | -0.046 | -0.016 | -0.009 | -0.014 | -0.004 | -0.016 | -0.014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education | 0.161 | 0.169 | 0.199 | 0.19 ** | 0.165 | 0.149 | 0.162 | 0.159 |
| Urban | 0.381 | 0.357 | 0.428 | 1.585 * | 0.333 | 0.503 | 0.4 | 0.395 |
| North Sumatra | 1.104 | 1.135 | 1.093 | 1.305 | 0.762 | 1.089 | 1.218 | 1.095 |
| Married | -0.744 | -0.443 | -0.658 | -0.91* | -0.76 | -2.073 | -0.774 | -0.705 |
| Female | 0.254 | -1.917 | 1.141 | 0.804 * | 0.007 | -1.796 | 0.937 | 0.105 |
| Trade | 0.004 | 0.019 | -0.003 | -0.038 | -0.037 | 0.008 | 0.781 | 0.005 |
| Duration | -0.001 | -0.001 | -0.001 | -0.002 | -0.001 | -0.002 | -0.002 | -0.002 |
| Female*Age | ------ | 0.056 | ------ | ------ | ------ | ------ | ------ | ------ |
| Female*Education | ------ | ------ | -0.081 | ------ | ----- | ------ | ------ | ----- |
| Female*Urban | ------ | ------ | ------ | -2.379 | ------ | ------ | ------ | ------ |
| Female*Sumatra | ------ | ------ | ------ | ------ | 0.673 | ------ | ------ | ------ |
| Female*Married | ------ | ------ | ------ | ------ | ------ | 2.361 | ------ | ---- |
| Female*Trade | ------ | ------ | ------ | ------ | ------ | ------ | -1.461 | ------ |
| Female*Duration | ------ | ------ | ------ | ------ | ------ | ------ | ------ | 0.002 |
| Constant | -0.943 | -0.128 | -1.386 | -1.616 | -0.823 | -0.086 | -1.209 | -0.893 |
| N | 137 | 137 | 137 | 137 | 137 | 137 | 137 | 137 |
| Psuedo $\mathrm{R}^{2}$ | 0.16 | 0.17 | 0.16 | 0.19 | 0.16 | 0.18 | 0.18 | 0.16 |

** $\mathrm{p}<.05$, * $\mathrm{p}<.10$
Note: The results are from a logistic regression model with Huber-White standard errors. The dependent variable is the participant's response to the question "Do you want to formalize your business?" Responses of "yes" are coded as 1 ; "no" is 0 .

Data visualization techniques are recommended in order to interpret interaction terms in a logistic regression model (Ai \& Norton, 2003; Brambor, Clark, \& Golder, 2005). However, we can make inferences from the regression results for the constitutive variables that comprise the interaction terms. For instance, in Column 4, Urban is positive and statistically significant ( $p<$ .083. This indicates that when Female is 0 (i.e., the owner is male) there is a positive association between living in an urban environment and preferring to formalize one's business. We also observe in Column 4 that Female is positive and statistically significant ( $p<.086$ ). This indicates that when Urban is 0 (i.e., the owner lives in a rural area), there is a positive association between being a woman and preferring to formalize one's business. Thus, among entrepreneurs in rural areas, women are more likely to prefer to formalize than men.

In Column 6, Married is negative and statistically significant ( $p<.048$ ). This indicates that when the participant is male, there is a negative association between being married and preferring to formalize one's business. Married men, all else equal, are more likely to prefer to remain in the informal sector than single men. The results in Column 7 also indicate that when Trade is 0 (i.e., the owner does not engage in trading/selling goods), there is a positive and
statistically significant relationship ( $p<.088$ ) between being a woman and preferring to formalize one's business.

Hence, with regard to the role of gender, we can conclude the following from the results for the constitutive terms: (1) in rural areas, female entrepreneurs are more likely to prefer to formalize than male entrepreneurs; (2) marriage makes men less likely to prefer to formalize; and (3) among entrepreneurs in non-trade sectors, women are more likely to prefer to formalize than men. We also conclude more generally from the findings that education and living in North Sumatra, all else equal, have positive associations with the preference to formalize. Finally, being married appears to make entrepreneurs less likely to prefer formalization, although the results are just beyond the standard threshold of statistical significance.

We next construct five plots that illustrate the findings from the interaction terms. Using the results from Column 4 (which includes the interaction term Female*Urban), Figure 4.1 plots the predicted probability of preferring formalization for urban women and rural men while varying one's level of education; this probability is always higher for urban women. We observe a difference between the two groups most distinctly when the education level is between 7 and 16 years. For instance, the predicted probability of preferring formalization for an urban woman with 10 years of education is about 0.75 . However, a rural man with the same level of education has a much lower predicted probability of 0.38 . As the level of education increases, the gender gap narrows somewhat.

Figure 4.1. Probability of preferring formalization for urban women and rural men when education is varied.

Predictive Margins with $90 \%$ Cls


We observe a difference by province in male and female entrepreneurs' preferences about formalization. As Figure 4.2 shows, living in North Sumatra is associated with a higher probability of preferring to formalize for both urban women and rural men. Urban women in North Sumatra are about 20 percent more likely to prefer to formalize than urban women in East Java, and rural men in North Sumatra are about 25 percent more likely than rural men in East Java to prefer formalization.

Figure 4.2. Probability of preferring formalization by province for urban women and rural men.


Using the results from Column 6 (which includes the interaction term Female*Married), Figure 4.3 plots the predicted probability of preferring formalization for single women and married men while varying one's level of education. The predicted probability of preferring to formalize is always higher for single women. We observe a difference between the two groups most vividly when the education level is between 8 and 15 years. For instance, the predicted probability of preferring formalization for a single woman with 10 years of education is about 0.8 . However, a married man with the same level of education has a much lower predicted probability of about 0.37 . The gender gap narrows only at very high levels of education.

Figure 4.3. Probability of preferring formalization for single women and married men when education is varied.


Figure 4.4 plots the same curve for single women but now alongside the curve for married women. The differences between the two groups are quite stark up to 16 years of education. This suggests that single women are much more likely to prefer formalization than married women. Interestingly, the curve for married women is only slightly higher than the curve for married men (plotted in Figure 4.3).

Figure 4.4. Probability of preferring formalization for single women and married women when education is varied.

Predictive Margins with 90\% Cls


Finally, Figure 4.5 plots the results from Column 7 of Table 4.1 (where Female*Trade is included as an interaction term). Overall, female entrepreneurs engaged in trade or selling goods are more likely to prefer formalization than female entrepreneurs in other sectors. Increasing education levels have only a marginal effect on reducing the gap between the two. Although the confidence intervals always overlap at the same level of education, we can make useful comparisons between hypothetical entrepreneurs. For example, a female entrepreneur engaged in trade/selling with 17 years of education has a 0.78 probability of preferring to formalize, whereas a female entrepreneur not engaged in trade/selling with 2 years of education has a 0.22 probability of preferring to formalize. Shifting the latter entrepreneur's level of education up to 17 years gives her a 0.65 probability of preferring to formalize, which is still lower than if she were engaged in trade/selling.

Figure 4.5. Probability of preferring formalization by occupation type when education is varied.

Predictive Margins with $90 \% \mathrm{Cls}$


In sum, we conclude the following from our analysis of the dataset:

1. A slightly higher percentage of women than men prefer formalization, although the difference is not statistically significant.
2. Education is positively associated with preferring formalization.
3. Living in North Sumatra (instead of East Java) is positively associated with preferring formalization.
4. In rural areas, female entrepreneurs are more likely to prefer formalization than male entrepreneurs.
5. Marriage makes men less likely to prefer formalization.
6. Among entrepreneurs in non-trade sectors, women are more likely to prefer formalization.
7. Urban women always have a higher probability of preferring formalization than rural men.
8. Urban women in North Sumatra are about 20 percent more likely to prefer formalization than urban women in East Java.
9. Single women always have a higher probability of preferring formalization than either married women or married men.
10. Women engaged in trade/selling have a higher probability of preferring formalization than women in other sectors.

What are the reasons used to justify a preference for formalization? Participants were provided with a number of options that they could choose from to explain their reasoning. For those who wanted to formalize, the possible reasons were "Access to credit/loans/finance," "Greater security over contracts," "Access to business associations," "Greater access to cooperatives," "Greater security to operate business," and "Fewer informal fees (mafia, police, etc.)." The most common answer was "Greater security to operate business" (see Figure 4.6). Column 1 of Table 4.2 provides the results from a logistic regression analysis where the dependent variable is selection of "Greater security to operate business" as the reason for preferring formalization. The results suggest that education, living in an urban area, and engaging in trade/selling are all positively associated with selecting this reason for preferring formalization.

Figure 4.6. Reasons for formalizing one's business.


What are the reasons used to justify a preference to remain informal? Participants were provided with a number of options that they could choose from to explain their reasoning. For those who wanted to remain informal, the possible reasons were "Taxes and regulations," "No benefits from formalization," "Prefer informal economy," "Don't know how," "Government does not allow to get a license," and "Informal work provides higher income." The most common answer was "Prefer the informal economy" (see Figure 4.7).

Figure 4.7. Reasons for not formalizing one's business.


Column 2 of Table 4.2 provides the results from a logistic regression analysis where the dependent variable is the selection of "Taxes and regulation" as the reason for remaining informal. ${ }^{2}$ The results suggest that age and living in an urban area are positively associated with selecting this reason for preferring to stay informal. However, marriage and duration of ownership are negatively associated with selecting this reason. In effect, participants who are married are less likely to view taxes and regulations as the reason for preferring to stay informal. Also, the longer entrepreneurs are in business, the less likely they are to choose taxes and regulations as the reason for preferring to stay informal.

Table 4.2. Determinants of Reason for Preferring Informal to Formal Sector among Indonesian Entrepreneurs

| 1 | 2 |
| :---: | :---: |
| DV = Reason for | DV = Reason for wanting |
| wanting to formalize |  |
| business: "Greater |  |
| to stay informal: "Taxes |  |
| security to operate regulations" |  |
| business" |  |

[^1]| Age | -0.013 | $0.086^{*}$ |
| :--- | :---: | :---: |
| Education | $0.239^{* *}$ | -0.136 |
| Urban | $1.565 * *$ | $2.164^{* *}$ |
| North Sumatra | 0.656 | -0.491 |
| Married | -0.572 | $-1.705^{*}$ |
| Female | -0.507 | -0.78 |
| Trade | $1.611 * *$ | 0.512 |
| Duration | 0.002 | $-0.018 * *$ |
| Constant | $-3.507 *$ | -1.316 |
| N | 73 | 64 |
| Psuedo $\mathrm{R}^{2}$ | 0.22 | 0.33 |

** $\mathrm{p}<.05$, * $\mathrm{p}<.10$
Note: The results are from a logistic regression model with Huber-White standard errors. In Column 1, the dependent variable is coded " 1 " if the participant indicated a desire to formalize and indicated that "greater security to operate business" was a reason. In Column 2, the dependent variable is coded " 1 " if the participant indicated a desire to stay informal and indicated that "taxes and regulations" was a reason.

## Part 2: General Perceptions of the Informal Sector

One important goal of this project is to increase women's participation in the formal sector. However, key informant interviews revealed that many Indonesians perceived several advantages to working in the informal sector. Whereas some believed that they could make more money in the informal sector, others preferred its flexibility and the opportunity to stay close to home. To be sure, beliefs about the benefits of the informal sector may not always be factually accurate-in reality, women generally make more money in the formal than the informal sector (International Labor Organization 2007). Yet, if these beliefs are widespread then it is critical to understand and address them. Reducing structural barriers to the formal sector in Indonesia will not be enough to increase women's representation there if they continue to perceive greater benefits in the informal sector.

During the data collection phase, we presented participants with hypothetical scenarios that described a woman considering a transition from an informal job to a formal job. We varied the type and location of the informal job the woman presently had in order to gauge how these factors might affect perceptions of the relative advantages of the informal sector. The following is one version of the scenario that participants received before answering a series of follow-up questions:
"Ibu Putri is 27 years old and is married with children. She works in the informal sector, as a domestic worker in a house next door to her home, to supplement her husband's income as a driver. She's considering applying for a formal sector job-perhaps in a factory or supermarket-and working there instead of as a domestic worker."

The italicized portion above (signaling the job type) varied between two versions: one where the woman was employed as a domestic worker and another where the woman ran a warung. The underlined portion above (signaling the job's distance from her home) varied between two versions: one where the woman worked next door to her home and another where she worked several kilometers away. Thus, there were four possible scenarios that participants could have received. After reviewing the scenario, participants were then asked to make judgments about Ibu Putri's decision to apply for a formal job versus staying at the informal job. The participants were asked questions about the relative pay of the two jobs, how community members would perceive her new job, and other related issues. Below, we present the results of an analysis of the participants' responses.

When participants were asked "Which job is likely to pay more?" the possible responses were "the informal job," "the formal job," "both equally," "neither," and "not sure." A total of 388 participants selected one of these responses to the question. Irrespective of the scenario received, 61 percent of the participants believed that the formal job would pay more than Ibu Putri's current informal job. Alternatively, 17 percent of the participants believed that the informal job would pay more, 13 percent thought that they would pay the same, and nine percent were unsure.

What factors shape a participant's perception of the relative pay of the informal versus the formal job? Why might a participant view the informal job as being more lucrative? In order to answer these questions, we employ multinomial logistic regression and utilize data on participants' gender, age, education, marital status, education, urban/rural location, and provincial location. Given the gender imbalance in the dataset, we use post-stratification weights in the regressions. We also control for the scenario that participants received using two variables: Distance and Job Type. Distance is coded "1" if the participant received the version of the scenario in which Ibu Putri's job was located several kilometers from her home, and is coded " 0 " if the job was located next door to her home. Job Type is coded " 1 " if the participant received the version of the scenario in which Ibu Putri's current job was running a warung, and is coded " 0 " if her current job was as a domestic worker.

Column 1 in Table 4.3 presents the multinomial logistic regression results when participants selected the category "the informal job." Job Type emerges as positive and statistically significant, implying that when the woman ran a warung (instead of working as a domestic worker) the participant was more likely to say that the informal job pays more than the formal job. Thus, participants tended to believe that an informal job running a warung is potentially more lucrative than a formal job in a factory or a supermarket. Education is also found to be positive and statistically significant, suggesting that the more education participants have, the more likely they are to believe that the informal job pays more. It is possible that less educated

[^2]individuals in Indonesia simply assume that a formal job will always pay more. Further, the results indicate that participants who live in urban areas were less likely to believe that the informal job would pay more than the formal job, whereas participants in North Sumatra (instead of East Java) were more likely to believe the opposite.

Table 4.3. Perceptions of the Informal versus the Formal Sector in Indonesia

| IVs | (1) | (2) | (3) | (4) |
| :---: | :---: | :---: | :---: | :---: |
| Distance | 0.38 | -0.56** | -0.68** | 0.10 |
|  | (0.328) | (0.278) | (0.282) | (0.265) |
| Job Type | 1.35*** | 1.08*** | -0.31 | 0.05 |
|  | (0.365) | (0.296) | (0.295) | (0.276) |
| Age | 0.02 | 0.00 | -0.03** | -0.01 |
|  | (0.015) | (0.013) | (0.015) | (0.013) |
| Education | $0.21^{* * *}$ | 0.03 | -0.02 | -0.05 |
|  | (0.046) | (0.035) | (0.038) | (0.034) |
| Urban | -0.69* | 0.27 | 0.69* | 0.40 |
|  | (0.384) | (0.339) | (0.364) | (0.318) |
| Female | -0.53 | -0.27 | -0.17 | -0.12 |
|  | (0.344) | (0.294) | (0.298) | (0.281) |
| Married | 0.30 | -0.02 | 0.41 | 0.59* |
|  | (0.393) | (0.320) | (0.360) | (0.320) |
| North Sumatra | 0.79** | -0.43 | -0.13 | -0.61** |
|  | (0.349) | (0.301) | (0.294) | (0.277) |
| Constant | -7.04*** | -0.87 | $2.17 * * *$ | 0.92 |
|  | (1.119) | (0.727) | (0.804) | (0.656) |
| Pseudo $\mathrm{R}^{2}$ | . 10 | . 07 | . 06 | . 05 |
| Observations | 384 | 378 | 370 | 376 |

*** $\mathrm{p}<.01,{ }^{* *} \mathrm{p}<.05, * \mathrm{p}<.10$
Note: The results are from multinomial logistic regression models with Huber-White standard errors. In Column 1, the dependent variable is the response "the informal job" to the question: "Which job is likely to pay more?" In Column 2, the dependent variable is the response "the informal job" to the question: "Which job do you think community members would think is more appropriate for her?" In Column 3, the dependent variable is the response "more likely" to the question: "Is she more or less likely to have control over the money she earns (within her family) if she switches jobs?" In Column 4, the dependent variable is the response "more likely" to the question: "Is she more or less likely to receive benefits (e.g., paid maternity leave or paid holidays) if she switches jobs?"

The survey also asked: "Which job do you think community members would think is more appropriate for her?" The possible responses were "the informal job," "the formal job," "both equally," "neither," and "not sure." A total of 382 participants selected one of these responses to this question. Regardless of the scenario received, 47 percent of participants believed that Ibu Putri's formal job would be perceived by community members as more appropriate than her informal job. Alternatively, 29 percent of participants believed that the informal job would be perceived by the community as more appropriate, 15 percent believed that they would be perceived equally, and eight percent were unsure.

Column 2 in Table 4.3 presents the multinomial logistic regression results when participants selected the category "the informal job." The results indicate that Distance is a negative and statistically significant predictor, meaning that participants were less likely to believe that the community would view her informal job as more appropriate than the formal job if the former was located several kilometers from her home. Job Type was positive and statistically significant, indicating that when Ibu Putri was portrayed as running a warung (instead of working as a domestic worker), participants were more likely to believe that the community would view her informal job as more appropriate than the prospective formal job.

Another question was: "Is she more or less likely to have control over the money she earns (within her family) if she switches jobs?" The possible responses were "more likely," "less likely," "same," and "not sure." A total of 374 participants selected one of these responses to this question. Regardless of the scenario received, 45 percent of participants believed that Ibu Putri was more likely to have control over the money she earned if she switched to the formal job. Alternatively, 26 percent of participants believed that she would be less likely to have control if she switched jobs, nine percent believed her control would be the same, and 20 percent were unsure.

Column 3 in Table 4.3 presents the multinomial logistic regression results when participants selected the category "more likely." Distance emerges as negative and statistically significant. This suggests that if participants received the scenario where Ibu Putri's current job was several
kilometers from her home (instead of near her home), they were less likely to believe that she would have more control over the money she earned by switching jobs. Additionally, the results indicate that older participants were less likely to believe that changing her job to the formal sector would give her more control over the money she earned. However, participants who lived in urban areas were more likely to believe that changing her job to the formal sector would give her more control over the money she earned.

Finally, participants were asked: "Is she more or less likely to receive benefits (e.g., paid maternity leave or paid holidays) if she switches jobs?" The possible responses were "more likely," "less likely," "same," and "not sure." A total of 380 participants selected one of these responses. Regardless of the scenario received, 45 percent of participants believed that Ibu Putri was more likely to receive benefits if she switched to the formal job. Alternatively, 31 percent of participants believed that she was less likely to receive benefits if she switched jobs, five percent believed that her benefits would be the same, and 19 percent were unsure.

Column 4 in Table 4.3 presents the regression results when participants selected the category "more likely." Married is a positive and statistically significant predictor, suggesting that married participants were more likely than single participants to believe that if Ibu Putri switched to the formal job she would receive more benefits. However, North Sumatra emerges as a negative predictor, indicating that North Sumatrans were less likely to believe that Ibu Putri would receive more benefits if she switched to the formal job.

Overall, we confirmed the following from our analysis of participant responses to the scenario questions:

1. While most participants believed that a formal job pays more than an informal job, participants also believed that running an informal warung pays more than a formal job in a factory or a supermarket.
2. Education is positively associated with the belief that an informal job pays more than a formal job.
3. Living in an urban area is positively associated with the belief that a formal job pays more than an informal job.
4. Living in North Sumatra (instead of East Java) is positively associated with the belief that an informal job pays more than a formal job. North Sumatrans were also less likely to believe that the woman in the hypothetical scenario would receive more benefits (such as maternity leave or paid holidays) if she switched to a formal job.
5. Most participants believed that community members would view the formal job as more appropriate for the woman than the informal job.
6. Participants were less likely to believe that the community would view her informal job as more appropriate than the formal job if the former was located several kilometers from her home.
7. Participants were more likely to believe that the community would view her informal job as more appropriate than the formal job if she ran a warung instead of working as a domestic worker.
8. Most participants believed that if the woman switched to the formal job she would have more control over the money she earned within her family.
9. Most participants believed that if the woman switched to the formal job she would receive more benefits.
10. Participants were less likely to believe the woman would have more control over the money she earned at a formal job if her current informal job was located several kilometers from her home.
11. Older participants were more skeptical that changing her job to the formal sector would give the woman more control over the money she earned.
12. Participants who lived in urban areas were more likely to believe that changing her job to the formal sector would give her more control over the money she earns.
13. Married participants were more likely than single participants to believe that if the woman switched to a formal job she would receive more benefits (such as paid maternity leave and paid holidays).

## Part 3: Benefits of the Formal Sector

The benefits of formalization can be measured across several dimensions, such as work satisfaction, wellbeing, working conditions, and access to health care. Below, we report on five dimensions: (1) duration of employment, (2) a formal work contract, (3) availability of health care in the workplace, (4) health care during pregnancy and childbirth, and (5) sexual harassment and verbal abuse.

One potential benefit of formalized employment is job security. In order to assess the impact of formalization on job security, we conduct a simple test regressing Job Status on employment duration (in years), controlling for age. The most formalized terms of employment apply to workers who are characterized as Employees. As can be seen in Table 4.4, employees typically hold a position 3.2 years longer than workers of other types.

Table 4.4. Employment Duration in Years, by Employment Type.

|  | Employment <br> Duration in <br> Years |
| :--- | :---: |
| Age | $0.446^{* *}$ |
| Own Account | $16.76)$ |
| Employer Temp | 1.830 |
|  | $(1.34)$ |
| Employer Perm | -2.322 |
|  | $(1.02)$ |
| Employee | 3.436 |
|  | $(1.42)$ |
| Casual Ag | $3.168^{*}$ |
|  | $(2.32)$ |
| Casual NAg | 2.053 |
|  | $(1.14)$ |
| Outsourced | -1.338 |
|  | $(0.77)$ |
| Short Term | -0.231 |
|  | $(0.10)$ |
| Unpaid Worker | 2.045 |
|  | $(1.22)$ |
| Family Worker | -12.781 |
|  | $(1.76)$ |
| cons | 0.963 |
|  | $(0.48)$ |
| $R^{2}$ | $-10.887 * *$ |
| $N$ | $(7.09)$ |

Formal employees are also more likely to have a written contract, as seen in Table 4.5. Participants were asked whether they had a written work contract at the beginning of their most recent place of employment. For most work categories, only a small fraction reported having a contract. However, for employees, 59 percent ( 102 of 172) reported having a contract. This figure is similar to workers on a short-term contract ( 23 of 41 , or 56 percent) and is exceeded only by the contracting rate for out-sourced workers ( 9 of 14 , or 64 percent).

| Table 4.5. Written Contract at Beginning of Most Recent Job |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Yes |  | No |  | Self-employed |  | Total |
|  | Frequency | Percent | Frequency | Percent | Frequency | Percent |  |
| Own account worker | 8 | 5\% | 116 | 72\% | 38 | 23\% | 162 |
| Employer assisted by temporary employees | 1 | 8\% | 9 | 75\% | 2 | 17\% | 12 |
| Employer assisted by permanent employees | 3 | 27\% | 8 | 73\% | 0 | 0\% | 11 |
| Employee | 102 | 59\% | 69 | 40\% | 1 | 1\% | 172 |
| Casual employee in agriculture | 2 | 7\% | 26 | 93\% | 0 | 0\% | 28 |
| Casual employee not in agriculture | 5 | 15\% | 24 | 73\% | 4 | 12\% | 33 |
| Out-sourced worker | 9 | 64\% | 5 | 36\% | 0 | 0\% | 14 |
| Short-term contract | 23 | 56\% | 18 | 44\% | 0 | 0\% | 41 |
| Unpaid worker | 0 | 0\% | 1 | 100\% | 0 | 0\% | 1 |
| Contributing family worker | 2 | 12\% | 12 | 71\% | 3 | 18\% | 17 |
| Total | 155 | 32\% | 288 | 59\% | 48 | 10\% | 491 |

Formalization of employment terms is further reflected in the availability of health services, as can be seen in Table 4.6. Participants are surveyed on the health services available in their place of work. Employees, outsourced workers and short-term contract workers are all more likely to have an array of employer-provided health services than other participants.

Treatment for workplace injuries, headache, fatigue, and general illness are the health services most commonly provided in a formal work relationship. Treatment for workplace injuries is provided to 71 percent of outsourced workers, 46 percent on short-term contracts and 38 percent of workers who have employee status. Similar though slightly lower rates apply for headaches and fatigue ( 43 percent for outsourced workers and 26 percent for employees) and general illness ( 64 percent for outsourced workers and 47 percent for employees).

However, employees are much more likely than all other participants to receive health care that is not directly related to employment. Employees also commonly receive health checkups ( 34 percent), prenatal care ( 25 percent) and postnatal care ( 24 percent). A small percentage of employees even receive general health education (11 percent) and health care for their families ( 16 percent). Only 33 percent of employees report receiving no health care at work. The only group that is more likely to have employer-provided health care lower is outsourced workers (21 percent reported no health care available).

Table 4.6. Percentage Receiving Workplace Health Care

|  | Workplace Injuries | Headaches Fatigue | Illness | Checkup | Prenatal | Postnatal | Health Ed | Family <br> Health | None |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Own <br> account worker | 11\% | 4\% | 7\% | 6\% | 3\% | 3\% | 2\% | 1\% | 74\% |
| Employer assisted by temporary employees | 8\% | 0\% | 0\% | 17\% | 0\% | 0\% | 0\% | 0\% | 75\% |
| Employer assisted by permanent employees | 36\% | 18\% | 27\% | 27\% | 27\% | 27\% | 0\% | 9\% | 46\% |
| Employee | 38\% | 27\% | 47\% | 34\% | 25\% | 24\% | 11\% | 16\% | 33\% |
| Casual employee in | 7\% | 7\% | 11\% | 4\% | 4\% | 4\% | 4\% | 0\% | 71\% |


| agriculture |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Casual <br> employee <br> not in <br> agriculture | $27 \%$ | $18 \%$ | $9 \%$ | $9 \%$ | $9 \%$ | $9 \%$ | $0 \%$ | $0 \%$ | $58 \%$ |
| Out- <br> sourced <br> worker | $71 \%$ | $43 \%$ | $64 \%$ | $29 \%$ | $21 \%$ | $21 \%$ | $0 \%$ | $0 \%$ | $21 \%$ |
| Short-term <br> contract | $46 \%$ | $22 \%$ | $15 \%$ | $12 \%$ | $7 \%$ | $10 \%$ | $2 \%$ | $2 \%$ | $49 \%$ |
| Unpaid <br> worker | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $100 \%$ |
| Count | 128 | 78 | 118 | 87 | 60 | 4 | 3 | 1 | 269 |

Access to medical care is reflected by the care that women and their babies receive before and after birth. Nearly 100 percent of employees who gave birth received pre- and postnatal care for themselves and their babies. Rates for other workers ranged from 54 percent of casual employees in agriculture receiving postnatal care to 94 percent of casual employees not in agriculture receiving a checkup for newborns.

| Table 4.7. Health Care During Pregnancy and Child Birth |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: |
|  | Health Care |  |  | Birth Attendant |  |  |  |  |
|  | Prenatal | Postnatal | Baby <br> Check | Doctor | Midwife | Family <br> Friend | Healer | Self |
| Own account worker | $88 \%$ | $86 \%$ | $86 \%$ | $19 \%$ | $65 \%$ | $4 \%$ | $8 \%$ | $4 \%$ |
| Employer assisted by <br> temporary employees | $100 \%$ | $100 \%$ | $100 \%$ | $25 \%$ | $75 \%$ | $0 \%$ | $0 \%$ | $0 \%$ |
| Employer assisted by <br> permanent employees | $100 \%$ | $100 \%$ | $100 \%$ | $43 \%$ | $43 \%$ | $0 \%$ | $14 \%$ | $0 \%$ |
| Employee | $97 \%$ | $100 \%$ | $100 \%$ | $38 \%$ | $59 \%$ | $0 \%$ | $3 \%$ | $0 \%$ |
| Casual employee in <br> agriculture | $62 \%$ | $54 \%$ | $79 \%$ | $0 \%$ | $86 \%$ | $0 \%$ | $14 \%$ | $0 \%$ |
| Casual employee not in <br> agriculture | $67 \%$ | $81 \%$ | $94 \%$ | $19 \%$ | $75 \%$ | $0 \%$ | $6 \%$ | $0 \%$ |
| Out-sourced worker | $75 \%$ | $60 \%$ | $80 \%$ | $40 \%$ | $60 \%$ | $0 \%$ | $0 \%$ | $0 \%$ |
| Short-term contract | $87 \%$ | $93 \%$ | $93 \%$ | $45 \%$ | $50 \%$ | $0 \%$ | $5 \%$ | $0 \%$ |
| Unpaid worker | $67 \%$ | $88 \%$ | $100 \%$ | $17 \%$ | $50 \%$ | $0 \%$ | $33 \%$ | $0 \%$ |

Employees, outsourced workers and short-term contract workers were also more likely to have a doctor or midwife attend their delivery. Other participants occasionally report a delivery attended by a family friend or healer. For example, 16 percent of own account workers were not attended by a professional. For casual employees in agriculture, the figure is 14 percent. Fully one third of contributing family workers had their delivery attended by a healer.

Benefits of formalization are less likely to manifest in workplace relations. Participants were asked whether sexual harassment and verbal abuse are concerns for workers at the their place of employment. For each type of abuse, we report the number and percent of total participants reporting that the harassment is a concern for workers.

As seen in Table 4.8, sexual harassment and verbal abuse are more likely to occur in a formal workplace relationship. Employees, outsourced workers and short-term contract workers all report a high incidence of sexual harassment, ranging from 19 percent for employees to 33 percent for outsourced workers. The incidence of verbal abuse is even greater, with 41 percent of employees and 56 percent of short-term contract and outsourced workers raising concerns.

| Table 4.8. Concerns about Sexual Harassment and Verbal Abuse |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sexual Harassment |  | Verbal Abuse |  |  |  |
|  | Yes | Percent | Total | Yes | Percent | Total |
| Own account worker | 14 | $19 \%$ | 75 | 28 | $34 \%$ | 83 |
| Employer assisted by <br> temporary employees | 1 | $17 \%$ | 6 | 0 | $0 \%$ | 4 |
| Employer assisted by <br> permanent employees | 2 | $33 \%$ | 6 | 3 | $50 \%$ | 6 |
| Employee | 15 | $19 \%$ | 80 | 34 | $41 \%$ | 84 |
| Casual employee in <br> agriculture | 1 | $6 \%$ | 16 | 1 | $17 \%$ | 6 |
| Casual employee not in <br> agriculture | 1 | $7 \%$ | 14 | 2 | $13 \%$ | 16 |
| Out-sourced worker | 1 | $33 \%$ | 3 | 5 | $56 \%$ | 9 |
| Short-term contract | 5 | $28 \%$ | 18 | 10 | $56 \%$ | 18 |
| Unpaid worker | 0 | $0 \%$ | 4 | 3 | $25 \%$ | 12 |

Poor workplace relationships in formal work environments may, in part, explain lukewarm worker reports of work satisfaction. Participants were asked to rate overall satisfaction with work on a scale of 1 to 7 with 1 being very dissatisfied and 7 being very satisfied. Average rates are reported in Table 4.9. Employees reported slightly more satisfaction than own-account workers, but this difference was not statistically significant ( $p=.30$ ).

Table 4.9. Work Satisfaction

|  | Mean satisfaction <br> rating |
| :--- | :---: |
| Own account worker | 3.98 |
| Employer assisted by <br> temporary employees | 4.00 |
| Employer assisted by <br> permanent employees | 3.67 |
| Employee | 4.14 |
| Casual employee in <br> agriculture | 4.03 |
| Casual employee not in <br> agriculture | 3.69 |
| Out-sourced worker | 4.18 |
| Short-term contract | 3.78 |
| Unpaid worker | 4.00 |
| Contributing family worker | 3.35 |

In sum, these findings demonstrate that there are meaningful advantages to formal sector work in terms of access to health care and job security, but that sexual harassment and verbal abuse remain significant problems-and could dissuade women from joining the formal sector.

## Chapter 5: The Gender Gap in Wages

## Part 1: Sakernas Data Set

A difference in hourly compensation for men and women is a ubiquitous finding within the labor economics literature. The question, of course, is "why the gap?" In the analysis that follows, we use a standard statistical procedure for identifying the role that worker characteristics, gender stereotypes, household characteristics, work type, workplace, and industry play in determining compensation in Indonesia.

We begin by analyzing the data from the 2010 Sakernas labor force survey. This data set, while extremely large, has limited details on worker characteristics and gender stereotypes. The Sakernas data set analysis was complemented by our analysis of the 2012Women in Leadership survey.

For both datasets, we begin with a standard wage equation. Hourly compensation is determined by factors including education, experience, and responsibilities. We then consider the possibility that wage variation is also a consequence of gendered industry and occupation choices.

We begin first with a very basic formulation. Wages are assumed to depend only on gender. Results from a regression of Typical Hourly Pay on Gender are reported in column (1) of Table 5.1. The estimated constant is 2,428 . That is, the average hourly pay typically earned by an Indonesian man is 2,428 rupiah. The variable Female in Table 5.1 is set equal to 1 if the participant is female, and zero if the participant is male. The coefficient on the variable Female, -532.5 , indicates the impact of being female on the estimated average wage. That is, according to the 2010 Sakernas data, a typical woman earned 532.5 rupiah ( 21.9 percent) less per hour than a typical man.

So, do women earn less than men because they are victims of discrimination, or do they possess certain characteristics that lower their value to an employer? Our next step is to add characteristics other than gender to the wage equation. By adding Age and School years, as shown in column (2), we find that hourly compensation rises by 64.1 rupiah for each year of age and by 785.8 rupiah for each year of education. After controlling for age and education, the coefficient on Female drops to -253.5 , which is 10.4 percent of the male wage.

These results indicate that at least one reason women earn less than men is that women have lower educational attainment. There are many explanations for this: One possibility is that the payoff from education is lower for girls than boys. In order to test this hypothesis, we add a variable that is years of education for girls only. The estimated coefficient, recorded in column (3), is -72.2. That is, women earn 72.2 rupiah less per hour for each year of education compared to men. A lower return to education for girls, then, may offer a partial explanation for the lower educational attainment of Indonesian women.

Specifications (4) and (5) in Table 5.1 include a richer set of demographic characteristics, including urban status, having children under the age of 10 , marital status, whether the participant is a head of household and training certifications. For each variable, a female specific version is included.

| Table 5.1. Basic Wage Determination |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Typical Hourly Wage | Gender | Education \& Skills |  | Household Characteristics |  |
|  | (1) | (2) | (3) | (4) | (5) |
| Female | -532.5*** | -253.5*** | $352.9 * * *$ | 810.8*** | 672.0*** |
|  | -19.93 | -23.93 | 55.5 | 162.2 | 160.8 |
| Age |  | 64.09*** | 63.58*** | 48.26*** | 42.13*** |
|  |  | 0.897 | 0.898 | 1.204 | 1.193 |
| Urban |  |  |  | 1,137*** | 1,069*** |
|  |  |  |  | 26.1 | 25.83 |
| Children under 10 |  |  |  | -39.48** | $-50.43 * * *$ |
|  |  |  |  | -16.44 | -16.27 |
| Female*children under 10 |  |  |  | -68.32*** | -63.26** |
|  |  |  |  | -25.66 | -25.39 |
| Single |  |  |  | 254.4** | 203.4 |
|  |  |  |  | 127.1 | 125.7 |
| Female*single |  |  |  | -71.24 | -75.1 |
|  |  |  |  | -164.9 | -163.1 |
| Married |  |  |  | 264.7** | 247.6** |
|  |  |  |  | 116.4 | 115.1 |
| Female*married |  |  |  | 178.1 | 108.5 |
|  |  |  |  | 154.4 | 152.7 |
| Divorced |  |  |  | -44.16 | -61.85 |
|  |  |  |  | -182.6 | -180.6 |
| Female*divorced |  |  |  | 104.8 | 88.71 |
|  |  |  |  | 223.2 | 220.8 |
| Head of household |  |  |  | 744.0*** | 608.5*** |
|  |  |  |  | 49.09 | 48.61 |
| Female*head household |  |  |  | -235.4** | -187.4* |
|  |  |  |  | -105.5 | -104.4 |
| School years |  | 753.3*** | 785.8*** | 741.2*** | 653.4*** |
|  |  | 3.064 | 4.074 | 4.219 | 4.34 |
| Female*school years |  |  | $-72.73 * * *$ | $-80.16^{* * *}$ | $-68.90^{* * *}$ |
|  |  |  | -6.008 | $-6.12$ | $-6.327$ |
| Training certification |  |  |  |  | 4,977*** |
|  |  |  |  |  | 67.14 |
| Female*training cert |  |  |  |  | -360.7*** |


|  |  |  |  |  | -108.3 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Constant | $2,428^{* * *}$ | $-6,133^{* * *}$ | $-6,391^{* * *}$ | $-6,536^{* * *}$ | $-5,683^{* * *}$ |
|  | -12.36 | -49.53 | -53.91 | -137.7 | -136.6 |
| Observations | 527,003 | 383,164 | 383,164 | 383,164 | 383,164 |
| R-squared | 0.001 | 0.138 | 0.138 | 0.143 | 0.162 |
| Standard errors in parentheses |  |  |  |  |  |
| $* * * \mathrm{p}<0.01, * * \mathrm{p}<0.05, * \mathrm{p}<0.1$ |  |  |  |  |  |

Unsurprisingly, hourly compensation is higher in urban areas than in rural areas ( 1,069 to 1,037 rupiah). The presence of children under the age of 10 reduces wages, with a larger negative impact on women than men: Women with children under the age of 10 earn 63 rupiah less per hour than their male counterparts.

Those who are separated, divorced or widowed earn less per hour than married (248 to 265 rupiah) and single ( 254 rupiah) participants. The effect for single participants is statistically significant only in specification (4), however. Interestingly, the impact of marital status on hourly earnings is equal for males and females.

Heads of households earn more per hour (608 to 744 rupiah). However, the effect is weaker for women than men (-187 to -235 rupiah).

Finally, in specification (5) of Table 5.1, professional certifications are included in the regression. As with years of schooling, certification has a strong significant impact on hourly compensation, but the effect is weaker for female participants. Certification raises hourly pay for men by an average of 4,977 rupiah. For women the benefit is 361 rupiah ( 7.2 percent) smaller.

The results reported in Table 5.1 conform well to our expectations. Women are paid less than men per hour of work in part due to the lower return to education for women and in part due to the market's differential response to household responsibilities. Household heads earn more in Indonesia than other family members do, but the differential is smaller for women. Parents with young children earn less than other workers, even controlling for the parents' age, but the differential is larger for mothers than fathers.

Our next question is whether the gender differentials are the consequence of discrimination or whether there is some aspect of women's human capital formation choices that is an underlying causal factor. For example, women may choose educational fields that are female dominated or women may have less experience than their male counterparts.

In order to explore the impact of human capital accumulation, we start by examining women's choices of educational fields. For each field of study, we calculate the percent of the field composed of women. The base regression from Table 5.1 is re-estimated including the female share of the educational field as a regressor. Results are reported in column (1) of Table 5.2.

Estimates of the coefficients of the variables Female, Age, Urban, Divorced, Household head and Training Certification are suppressed as they are stable across all specifications.

Notice, interestingly, that the more women in a training field, the higher the average wage. That is, women appear to choose fields of study that pay more than average. In specification (2), we isolate the effect of field choice on female participants. The coefficient on this variable is positive as well; that is, the more women in a field of study the higher the compensation for that field, and the differential impact on women is positive.

What's going on? Well, turn to specifications (3) and (4). Here we add years of experience.
Table 5.2. Wage Determination with Female Field Share and Experience.

| Typical Hourly Wage\# | Female Field | Experience |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Share |  |  |  |
|  | $(1)$ | $(2)$ | $(3)$ | $(4)$ |
| Children under 10 | $-46.99^{* * *}$ | $-50.79^{* * *}$ | -28.43 | $-63.23 * * *$ |
| Female*children under 10 | -16.23 | -16.22 | -21.43 | -21.51 |
|  | $-59.84^{* *}$ | $-53.29^{* *}$ | $-170.5^{* * *}$ | -46.52 |
| Single | -25.33 | -25.31 | -39.27 | -39.81 |
|  | 159.1 | 161.6 | $446.8^{* * *}$ | 208.8 |
| Female*single | 125.4 | 125.3 | 163.5 | 163.9 |
|  | 35.09 | 83.74 | $-707.2^{* * *}$ | 134.8 |
| Married | 162.8 | 162.7 | -218.9 | 222.9 |
|  | $215.4^{*}$ | $222.1^{*}$ | $241.9^{*}$ | 158.8 |
| Female*married | 114.9 | 114.8 | 145.5 | 145.5 |
|  | 125.9 | 100.5 | 221.1 | $474.2^{* *}$ |
| School years | 152.4 | 152.3 | 202 | 203.2 |
|  | $701.8^{* * *}$ | $674.9 * * *$ | $757.1^{* * *}$ | $750.0^{* * *}$ |
| Female*school years | 4.495 | 4.607 | 5.869 | 5.887 |
|  | $-107.3^{* * *}$ | $-69.35^{* * *}$ | $42.01^{* * *}$ | $54.61^{* * *}$ |
| Female student share | -6.385 | -6.541 | 9.452 | 9.535 |
|  | $12,365^{* * *}$ | $6,001^{* * *}$ | $5,107^{* * *}$ | $5,330^{* * *}$ |
| Female*Female student share | 307.3 | 391.2 | 470.1 | 469.8 |
| Exp0 |  | $16,505 * * *$ | $12,178^{* * *}$ | $10,849^{* * *}$ |
| Female*Exp0 |  | 628.6 | 766.9 | 769 |
| Exp1to3 |  |  | $-1,139^{* * *}$ | $-472.7^{* * *}$ |
|  |  | -155.6 | -179.2 |  |


| Female*Exp1to3 |  |  |  | -2,239*** |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | -322.2 |
| Exp4to6 |  |  | -977.7*** | -592.6*** |
|  |  |  | -147.5 | -168.3 |
| Female*Exp4to6 |  |  |  | $-1,669 * * *$ |
|  |  |  |  | -324.3 |
| Exp7to 10 |  |  | -863.4*** | -670.3*** |
|  |  |  | -146.9 | -167.8 |
| Female*Exp7to10 |  |  |  | $-1,028 * * *$ |
|  |  |  |  | -326 |
| Exp11to15 |  |  | -481.4*** | -312.1* |
|  |  |  | -148 | -169 |
| Female*Exp11to15 |  |  |  | -919.6*** |
|  |  |  |  | -331.5 |
| Exp16to20 |  |  | 309.8** | 330.7* |
|  |  |  | 147.5 | 168.8 |
| Female*Exp16to20 |  |  |  | -311.7 |
|  |  |  |  | -333.6 |
| Exp21to30 |  |  | 1,858*** | 1,775*** |
|  |  |  | 144.3 | 165.4 |
| Female*Exp21to30 |  |  |  | 119.8 |
|  |  |  |  | 329.6 |
| Exp31to40 |  |  | 824.5*** | 832.6*** |
|  |  |  | 156.8 | 179.9 |
| Female*Exp31to40 |  |  |  | -121 |
|  |  |  |  | -363.4 |
| Constant | -12,208*** | -8,801*** | -6,957*** | $-7,241 * * *$ |
|  | -211.8 | -248.3 | -343.7 | -350.3 |
| Observations | 383,164 | 383,164 | 266,831 | 266,831 |
| R-squared | 0.165 | 0.167 | 0.17 | 0.171 |
| Standard errors in parentheses $* * * \mathrm{p}<0.01, * * \mathrm{p}<0.05, * \mathrm{p}<0.1$ |  |  |  |  |

\#Suppressed variables: Female, Age, Urban, Divorced, Household Head, Training Certification, Field.

The estimated coefficient on the experience variable is negative for a worker with zero years of experience (Exp0). As experience rises, the coefficient rises as well, as we would expect. That is, the more experience a worker has, the higher the hourly wage.

In specification (4) of Table 5.2, we add separate estimates for the impact of experience on female wages. For women with 15 years of experience or less, the interaction term is negative. That means that among participants with 15 years of experience or less, the return to experience for women is less than that for men with a similar education and life situation. Among participants with more than 15 years of experience, the estimated differential effect for women is negative but not statistically different from zero.

Notice one other feature of column (4) of Table 5.2. When we control for experience, the payoff from education rises for women. The differential benefit for women relative to men for an additional year of education is now a positive 55 rupiah.

The results in Table 5.2 provide additional understanding of the source of the negative wage differential for women. As for Table 5.1, we continue to find that family characteristics are a contributing factor. However, once we control for work experience, the market appears to reward educational choices, particularly those made by women.

It is possible that the negative experience differential for women is the result of discrimination. However, a gender-linked pay differential may also arise as the result of industry, occupation or work type segregation.

The impact of employment segregation can be explored by beginning with the regression equation reported in column (5) of Table 5.2, and adding job characteristics in levels and interactions with gender. Results are reported in Table 5.3. We have suppressed stable regression coefficients and coefficient levels.

In the first column of Table 5.3, we add industry. The second column includes occupation and the third includes occupation and job type. Note that in all three specifications, the differential effect for female years of education continues to be positive and the differential effect of training certification is negative. Women appear to benefit more from formal education than from training certification.

The fields of training typically chosen by women appear to pay less on average. However, women in these fields earn more than men in female-dominated fields of study.

Turning first to industry, women earn less than men in every single industry, and the variation across sectors is fairly small.

Some variation does emerge across occupations. The largest gender differentials emerge for Professionals ( $-3,550$ rupiah), Assistant Technical Professionals (-3,012 rupiah), Administrative Services (-1,911 rupiah), and Manual Laborers (-2,009 rupiah).

Women fare well compared to men only when in a formal employment situation or when they achieve employer status. The gender hourly compensation differential is positive for women who work on their own account or as employers of temporary or permanent workers.

In summary, evidence from the 2010 Sakernas data leads to the following conclusions:

1. On average, women earn 79 percent of the hourly wage of men.
2. Both men and women with children under the age of 10 earn less than their peers, controlling for age and other demographic characteristics. However, the negative impact is larger for women than for men.
3. Both men and women who are household heads earn more than their peers, but the positive impact is larger for men than for women.
4. The return from formal education is positive, and larger for women than men. Training programs also raise wages, but unlike with formal education, the effect is larger for men than women.
5. The fields of study that women tend to choose pay less than other fields of study. However, women who choose female-dominated fields receive a higher wage than men in the same fields.
6. The return from experience is positive for all workers, but men receive a larger wage gain from this factor than women.
7. The female pay differential is negative across all industries and is negative across all of the higher paying professional occupations including professionals, technical assistants, administrative services and human services.
8. The only professional context in which the gender differential is positive for women is for women who are in a formal employment situation or have achieved employer status either by working on her own account or as an employer of temporary and permanent workers.

| Table 5.3. Wages and Industry, Occupation, and Work Type |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Industry |  | Occupation |  | Occupation Employment Status |  |
| Female | 20621.73 | Female | -2293.18 |  |  |
|  | 6017.53*** |  | 993.25 |  |  |
| F*school | 29.07*** | F*school | 45.59*** | F*school | 49.66*** |
|  | 11.28 |  | 11.61 |  | 11.11 |
| F*Train Cert | -781.3*** | F*Train Cert | -681.9*** | F*Train Cert | -288.7** |
|  | -128.7 |  | -128 |  | -121 |
| F-field | -1,843*** | F-field | -108.1 | F-field | -952.0** |
|  | -465.1 |  | -458.7 |  | -441 |
| F*F-field | 10,061*** | F*F-field | 6,454*** | F*F-field | 8,258*** |
|  | 789.6 |  | 771.5 |  | 751.5 |
| F*Hunt | -25,089*** | F*Manage off | -1,806** | F*Manage off | -2,032** |
|  | -5,995 |  | -875.5 |  | -833.2 |
| F*Hunt wild | -24,697*** | F*Professional | -3,550*** | F*Professional | -3,983*** |
|  | -6,004 |  | -852.5 |  | -827.8 |
| $\mathrm{F}^{*}$ Mining | -26,653*** | F*Asst tech prof | -3,012*** | F*Asst tech prof | -3,167*** |
|  | -6,009 |  | -865.8 |  | -826.5 |
| F*Manufacturing | -26,421*** | F*Admin service | -1,911** | F*Admin service | -2,091*** |
|  | -5,995 |  | -853 |  | -807.2 |
| F*Utilities | -25,084*** | F*Human service | -955.1 | F*Human service | -1,573* |
|  | -6,079 |  | -848.5 |  | -820.7 |
| F*Construction | -22,952*** | $\mathrm{F}^{*} \mathrm{Agr}$ bus worker | -392.4 | F*Agr bus worker | -1,468* |
|  | -6,015 |  | -850.6 |  | $-860.9$ |
| F*Whole retail | -25,559*** | F*Handcraft | -1,529* | F*Handcraft | -1,834** |
|  | -5.994 |  | -851.9 |  | $-827.1$ |


| F*Trans comm | -5,996 | F*Man labor | 864.7 | F*Man labor | -837.8 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | -24,297*** |  | -2,009** |  | -1,347 |
|  | -5,999 |  | -852.2 |  | -823.4 |
| F*Financial | -24,317*** |  |  | F*Own acct worker | 23,377*** |
|  | -6,001 |  |  |  | 5,700 |
| F*Real est bus serv | -25,003*** |  |  | F*Employer temp | 23,365*** |
|  | -6,011 |  |  |  | 5,700 |
| F*Gov def social sec | -27,321*** |  |  | F*Employer perm | 23,123*** |
|  | -5,995 |  |  |  | 5,703 |
| F*Educ serv | -27,826*** |  |  | F*Employee | 22,307*** |
|  | -5,995 |  |  |  | 5,700 |
| F*Health serv | -26,806*** |  |  |  |  |
|  | -5,999 |  |  |  |  |
| F*Soc cult | -25,736*** |  |  |  |  |
|  | -5,996 |  |  |  |  |
| F*HH service | -25,238*** |  |  |  |  |
|  | -6,000 |  |  |  |  |
| F*Other ind | -25,486*** |  |  |  |  |
|  | -6,192 |  |  |  |  |
| Constant | 14,854*** | Constant | 9,270*** | Constant | 10,051*** |
|  | 3,935 |  | 372.8 |  | 3,694 |
| Observations | 266,831 | Observations | 266,831 | Observations | 266,831 |
| R-squared | 0.256 | R-squared | 0.261 | R-squared | 0.346 |

## Part 2: Women in Leadership 2012 Data Set

Analysis of the 2010 Sakernas data allows for the study of many interactions, given the very large size of the data set. However, additional information can be obtained from the smaller but more detailed 2012 Women in Leadership data set.

As with the Sakernas analyses, we begin with a basic hourly wage equation. In order to improve the fit, the dependent variable is the log of the wage (abbreviated ln).

First, consider the basic wage equation reported in column (1) of Table 5.4. As expected, the coefficients on Age and Education are positive and statistically significant. Workers with a physical disability and those who worked in the past but are not currently working (Worked in Past) have (or had) lower wages than their peers. However, somewhat surprisingly, we do not detect a wage impact associated with health status, duration of current employment, skills training, or status as a supervisor or business owner.

In columns (2) and (3) we attempt to determine whether these worker characteristics differentially affect the wages of women. First, in column (2), we limit the sample to women. Pooling men and women is appropriate only if the marginal effects of individual characteristics are equal for both. Splitting the sample gives us the freedom to estimate a separate set of parameters for each gender.

Note that in column (2) the pattern of the signs of the coefficients is similar to that in the pooled equation. Age and education predict a higher wage, whereas not currently working and a physical disability predict a lower wage. There is one difference, however: Women who supervise five or more subordinates actually earn less than those who do not.

In regression (3), we return to the full sample but introduce female specific variables. Capturing gender specific effects through interaction terms implicitly assumes that the coefficients of non-interacted terms are constant across genders. Our purpose is to determine whether the gender specific effects are statistically significant. Notice that when we allow the marginal effects to vary by gender, participants who supervise five or more subordinates earn a higher wage than other participants; however, this positive supervisor effect is limited to men. When the supervisor is a woman, the effect is actually negative: Female supervisors earn less than their male counterparts.

In contrast, in the case of a physical disability, the negative impact is more pronounced for men. One possible explanation of the gender difference in disabilities is job segregation.

One of the unique aspects of the 2012 Woman in Leadership data set concerns the data on gender attitudes. The extent to which participants endorse a view of gender differences
as stable and innate can be included as an individual characteristic in the standard wage equation. As with the basic wage equation, we estimate three versions of the equation. Results are reported in Table 5.5.

| Table 5.4. Basic Wage | Worker Characteristics |  |  |
| :---: | :---: | :---: | :---: |
| Hourly wage (ln) | Total <br> (1) | Females (2) | Female Interactions <br> (3) |
| Age | 0.0187* | 0.0275** | 0.0177* |
|  | 0.0105 | 0.0125 | 0.0105 |
| Urban | 0.0148 | -0.101 | 0.027 |
|  | 0.22 | -0.263 | 0.221 |
| Physical Disability | -3.995*** | -2.152** | -6.027*** |
|  | -0.789 | -0.952 | -1.235 |
| Worked in Past | -0.411** | -0.584*** | -0.163 |
|  | -0.189 | -0.215 | -0.353 |
| Education | 0.0797*** | 0.114*** | 0.0381 |
|  | 0.0284 | 0.0334 | 0.0438 |
| Health Status | -0.0937 | -0.165 | -0.0984 |
|  | -0.126 | -0.15 | -0.125 |
| Employment Duration | $7.16 \mathrm{E}-06$ | -7.37E-05 | $2.48 \mathrm{E}-05$ |
|  | 0.00107 | -0.00148 | 0.00107 |
| Skills Training Index | 0.161 | 0.115 | 0.189 |
|  | 0.157 | 0.18 | 0.155 |
| Supervise 5+ Staff | 0.38 | -0.809* | 1.103** |
|  | 0.34 | -0.483 | 0.451 |
| Supervise 2 to 5 | 0.00943 | -0.151 | 0.0722 |
|  | 0.262 | -0.32 | 0.261 |
| Formal Business Owner | -0.335 | 0.717 | -0.963 |
|  | -0.719 | 0.947 | -1.02 |
| Female |  |  | -0.334 |
|  |  |  | -0.656 |
| Female*Physical Disability |  |  | 3.873** |
|  |  |  | 1.59 |
| Female*Past Employment |  |  | -0.426 |
|  |  |  | -0.42 |
| Female*Education |  |  | 0.0593 |
|  |  |  | 0.0514 |
| Female*Formal Business Owner |  |  | 1.692 |
|  |  |  | 1.438 |
| Female*Supervise 5+ Staff |  |  | -1.827*** |


|  |  |  | -0.673 |
| :--- | :---: | :---: | :---: |
| Constant | $7.335^{* * *}$ | $7.046^{* * *}$ | $7.635^{* * *}$ |
|  | -0.672 | -0.808 | 0.799 |
| Observations | 366 | 242 | 366 |
| R-squared | 0.126 | 0.142 | 0.167 |
| Standard errors below coefficient estimates |  |  |  |
| $* * * \mathrm{p}<0.01, * * \mathrm{p}<0.05, * \mathrm{p}<0.1$ |  |  |  |


| Table 5.5. Gender Attitudes | Essentialism |  |  |
| :--- | :---: | :---: | :---: |
| Hourly wage (ln) | Total | Females | Female Interactions |
|  | $(1)$ | $(2)$ | $(3)$ |
| Age | $0.0219^{* *}$ | $0.0283^{* *}$ | $0.0203^{* *}$ |
| Urban | 0.0102 | 0.0127 | 0.0102 |
|  | -0.071 | -0.178 | -0.076 |
| Physical Disability | -0.216 | -0.271 | -0.216 |
|  | $-3.735^{* * *}$ | -0.958 | $-6.269^{* * *}$ |
| Worked in Past | -0.838 | -1.134 | -1.174 |
|  | $-0.364^{* *}$ | $-0.438^{* *}$ | -0.272 |
| Education | -0.185 | -0.221 | -0.336 |
|  | $0.0804^{* * *}$ | $0.122^{* * *}$ | 0.0347 |
| Health Status | 0.0276 | 0.0338 | 0.0422 |
| Employment Duration | $-0.210^{*}$ | -0.194 | -0.197 |
|  | -0.123 | -0.151 | -0.123 |
| Skills Training Index | -0.00019 | 0.000341 | -0.00021 |
| Supervise 5+ Staff | -0.00105 | 0.00154 | -0.00104 |
|  | 0.121 | 0.113 | 0.15 |
| Supervise 2 to 5 | 0.153 | 0.183 | 0.151 |
| Formal Business Owner | 0.372 | -0.62 | $0.980^{* *}$ |
| Essentialism | 0.329 | -0.491 | 0.428 |
| Female | 0.0659 | -0.253 | 0.104 |
| Female*Physical Disability | 0.255 | -0.319 | 0.253 |


|  |  |  |
| :--- | :--- | :---: |
| Female*Past Employment |  | 1.645 |
|  |  | -0.178 |
| Female*Education |  | -0.405 |
|  |  | 0.0693 |
| Female*Formal Business Owner |  | 0.0496 |
|  |  | 1.816 |
| Female*Supervise 5+ Staff |  | 1.37 |
|  |  | $-1.501 * *$ |
| Female*Essentialism |  | -0.65 |
|  |  |  |
| Constant | $0.357^{* * *}$ | $5.554^{* * *}$ |
|  | 3475 | 0.955 |
| Observations | 0.146 | 0.147 |
| R-squared |  |  |
| Standard errors below estimates |  |  |
| $* * *$ p $<0.01, * * \mathrm{p}<0.05, * \mathrm{p}<0.1$ |  | 1.02174 |

The size and pattern of the coefficients' signs and their statistical significance are similar to those in Table 5.4. Notice, however, that wages are positively correlated with a participant's endorsement of essentialism, or the belief that certain traits are inherent in each gender.

While striking, a positive correlation between work outcomes and gender attitudes is not without precedent (Watkins et al., 2006). Essentialism is widely endorsed in Indonesia, and was unique among the attitude measures in that there were no significant demographic predictors-not even gender. One possible explanation is that workers who endorse this common view of gender are rewarded for being a better fit with the organizational (and broader) culture. As discussed above, the data from the selfpromotion scenario indicate that male participants viewed the woman who confidently asks for a promotion less positively than the woman who was more modest and hesitant. Because men are more likely to be supervisors, it may be that the women (and men) who conform to gender stereotypes are seen more positively and receive a higher wage.

We turn next to how wages might vary across job status, sector and workplace. Two issues are of interest: Are wages higher in formal or informal settings, and is there a gender gap in wages?

The results for job status are reported in Table 5.6. Note that casual workers (both agricultural and non-agricultural) and outsourced workers report higher compensation than other workers.

There are a couple of possible explanations for the higher wage in casual employment. The first and most obvious is that the sample is not random. However, these results support other findings from this data set. Participants may earn more in less formal work relationships, and the effect may be particularly pronounced for women. Note, for example, that the estimated coefficients for female participants in informal jobs are not only larger than for formal jobs, but also larger than for men. It is also worth pointing out that average wages for men and women are equal in this data set. Thus, it is virtually certain that there are some issues with the random selection of the sample.

| Table 5.6 Job Status |  |  |  |
| :--- | :---: | :---: | :---: |
| Hourly wage (ln) | Total | Female | Female Interactions |
|  | $(1)$ | $(2)$ | $(3)$ |
| Own Account | 0.711 | 0.736 | 0.665 |
|  | 0.474 | 0.469 | 0.579 |
| Employer Temporary Workers | -0.0856 | -0.595 | -0.0935 |
|  | -0.726 | -0.787 | -0.732 |
| Employer Permanent Workers | -0.762 | -0.664 | -0.698 |
|  | -0.794 | -0.914 | -0.794 |
| Employee | 0.444 | 0.251 | 0.366 |
|  | 0.47 | 0.467 | 0.472 |
| Casual Agriculture | 0.527 | $1.344^{* *}$ | 0.537 |
|  | 0.573 | 0.589 | 0.574 |
| Casual Not Agriculture | $1.027^{*}$ | $1.306^{* *}$ | 0.301 |
|  | 0.567 | 0.584 | 0.827 |
| Outsourced | $1.285^{*}$ | $1.612^{*}$ | 0.902 |
|  | 0.708 | 0.831 | 0.926 |
| Short Term Worker | 0.821 | 0.854 | 0.764 |
|  | 0.546 | 0.547 | 0.546 |
| Unpaid Worker | -0.747 |  | -1.366 |
|  | -1.827 |  | -1.895 |
| Family Worker | 0.264 | 0.45 | 0.462 |
| Female*Own Account | 0.681 | 0.77 | 0.69 |
| Female*Casual Not Agriculture |  |  | 0.0416 |
| Female*Outsourced |  |  | 0.456 |
| Constant |  |  | 0.889 |
|  |  |  | 0.835 |
|  | $0.392^{* * *}$ | $5.800^{* * *}$ | $6.899^{* * *}$ |
|  |  | 0.94 | 0.995 |


| Observations | 366 | 242 | 366 |
| :--- | :---: | :---: | :---: |
| R-squared | 0.157 | 0.213 | 0.182 |

Standard errors below coefficient estimates
*** $\mathrm{p}<0.01, * * \mathrm{p}<0.05, * \mathrm{p}<0.1$

More interesting findings emerge when we consider the sector in which the participant is employed. Results are reported in Table 5.7. Wages are lowest in the mining and quarrying sector, for both men and women. Below average wages also emerge in childcare and selling for both genders. Women earn below average wages in hospitality.

| Table 5.7. Sector |  |  |  |
| :--- | :---: | :---: | :---: |
| Hourly wage (ln) | Total | Female | Female Interactions |
|  | $(1)$ | $(2)$ | $(3)$ |
| Supervise 5+ Staff | $0.715^{* *}$ | -0.666 | $0.789^{* *}$ |
| Government | 0.35 | -0.498 | 0.358 |
|  | -0.0662 | -0.189 | 0.0833 |
| Security | -0.381 | -0.452 | 0.378 |
|  | 0.483 | 1.166 | 0.489 |
| Education | 0.672 | 0.929 | 0.672 |
|  | -0.225 | -0.383 | -0.28 |
| Business Office | -0.342 | -0.379 | -0.625 |
|  | -0.442 | -0.297 | -0.0905 |
| Hospitality | -0.4 | -0.525 | -0.403 |
|  | -0.364 | $-0.566^{*}$ | -0.289 |
| Factory | -0.277 | -0.331 | -0.276 |
|  | $-1.055^{* *}$ | $1.586^{*}$ | $-2.046^{* * *}$ |
| HH Enterprise | -0.444 | 0.812 | -0.539 |
|  | -0.0955 | 0.391 | -0.0574 |
| Domestic Work | -0.363 | 0.406 | -0.361 |
| Selling | 0.0417 | 0.09 | 0.165 |
|  | 0.382 | 0.364 | 0.382 |
| Mining and Quarrying | $-0.665^{* *}$ | $-0.680^{* *}$ | -0.871 |
|  | -0.264 | -0.283 | -0.542 |
| Agriculture/Aquaculture/Farming | $-3.752^{* * *}$ | $-2.984^{* *}$ | $-3.826^{* *}$ |
| Employed | -1.006 | -1.163 | -1.684 |
|  | -0.077 | 0.0741 | -0.109 |


| Family Enterprise | 0.729 | -2.282 | 0.67 |
| :--- | :---: | :---: | :---: |
|  | 0.711 | -1.766 | 0.745 |
| Child Care | $-0.492^{*}$ | $-0.782^{* * *}$ | -0.766 |
|  | -0.253 | -0.255 | -0.838 |
| Household Production | 0.104 | 0.36 | 0.0338 |
|  | 0.248 | 0.272 | 0.25 |
| Female*Factory |  |  | $3.152^{* * *}$ |
|  |  |  | 0.962 |
| Female*Selling |  |  | 0.305 |
|  |  |  | 0.583 |
| Female*Mining Quarrying |  |  | 0.21 |
|  |  |  | 2.076 |
| Female*Child Care |  |  | 0.0941 |
|  |  |  | 0.856 |
| Constant | 0.969 | 1.938 | $7.125^{* * *}$ |
|  |  |  | 1.077 |
| Observations | 366 | 242 | 366 |
| R-squared | 0.201 | 0.256 | 0.254 |
| Standard errors below coefficient estimates |  |  |  |
| $* * *$ p $<0.01, * * \mathrm{p}<0.05, * \mathrm{p}<0.1$ |  |  |  |

The most interesting feature of the results presented in Table 5.7 concerns the gender differential effects in factory work. Factory work pays a below average wage for the entire sample; however, for women, the factory wage effect is positive and large. Factories typically provide a formalized work environment, but men may have other, more attractive options in the formal sector than factory work. However, for women, factory employment offers a rare opportunity to enjoy the benefits of formality and an above average wage.

The tension between formality and wages for females becomes clear when the place of work is considered. Results are reported in Table 5.8. Consider first the results for the full sample, reported in column (1). Not a single work location is statistically significant. However, turn now to column (2), where the sample is limited to female participants. Pay premiums emerge for work in a special location in the home, work on a farm, work in an employer's home, and work in no specific location.

## Table 5.8. Work Place

| Hourly wage (ln) | Total | Female | Female Interactions |
| :--- | :---: | :---: | :---: |
| (1) | $(2)$ | $(3)$ |  |


| Work Home | -0.343 | 1.004 | -0.389 |
| :---: | :---: | :---: | :---: |
|  | -1.098 | 1.178 | -1.081 |
| Work Home Special | 0.931 | 2.269** | 0.532 |
|  | 1.048 | 1.146 | 1.125 |
| Work Not Home | 0.332 | 1.55 | 0.232 |
|  | 1.007 | 1.1 | 0.99 |
| Work Farm | 0.804 | 2.598** | 0.245 |
|  | 1.042 | 1.152 | 1.067 |
| Work Client | 0.701 | 2.245 | 0.504 |
|  | 1.323 | 1.542 | 1.304 |
| Employer Home | 0.932 | $2.367^{* *}$ | 1.064 |
|  | 1.081 | 1.156 | 1.068 |
| Construction Site | 0.286 |  | 0.384 |
|  | 1.573 |  | 1.558 |
| Work Bazaar | 0.674 | 1.547 | 0.442 |
|  | -1.211 | 1.252 | 1.196 |
| Work Street Stall | 0.702 | 1.876 | 0.763 |
|  | 1.108 | 1.177 | 1.091 |
| Work Anywhere | 1.55 | 3.949*** | 1.116 |
|  | 1.071 | 1.214 | 1.123 |
| Work Other | 0.108 | 1.851 | -0.0225 |
|  | 1.072 | 1.164 | -1.056 |
| Female*Work Home Special |  |  | 0.47 |
|  |  |  | 0.674 |
| Female*Work Farm |  |  | 0.93 |
|  |  |  | 0.592 |
| Female*Work Anywhere |  |  | 1.519* |
|  |  |  | 0.809 |
| Constant | 6.646*** | 4.900*** | 7.561*** |
|  | 1.188 | 1.339 | 1.279 |
| Observations | 366 | 242 | 366 |
| R-squared | 0.17 | 0.25 | 0.216 |
| Standard errors below coefficient estimates *** $\mathrm{p}<0.01, * * \mathrm{p}<0.05, * \mathrm{p}<0.1$ |  |  |  |

A final set of characteristics that may affect wages concerns the participant's household, including ethnicity, marital status, and family responsibilities, and travel time to work. Results are reported in Table 5.9. As with the other regressions, we first estimate the equation with the total population and then limit the data set to women.

The pattern of parameter values is similar to the above results. However, the only household characteristic that appears to play a significant role is ethnicity. Participants of Java or Madura ethnicity have higher wages than other participants.

Note that other household characteristics appear to play a significant role in determining wages in the basic equation. Characteristics such as marital status, absence from work due to family responsibilities, and travel time to work have the expected sign but are not statistically significant.

Table 5.9 Household Characteristics

| Hourly wage (ln) | Total | Female |
| :--- | ---: | ---: |
|  | $(1)$ | $(2)$ |
| Age | $0.0205^{*}$ | $0.0290^{* *}$ |
|  | 0.0122 | 0.0147 |
| Urban | 0.1 | -0.084 |
|  | 0.224 | -0.272 |
| Physical Disability | $-4.202^{* * *}$ | $-2.431^{* *}$ |
| Worked in Past | -0.776 | -0.941 |
|  | $-0.389^{* *}$ | $-0.554^{* *}$ |
| Education | -0.197 | -0.226 |
|  | $0.0811^{* * *}$ | $0.116^{* * *}$ |
| Health Status | 0.0283 | 0.0333 |
|  | -0.0739 | -0.122 |
| Employment Duration | -0.127 | -0.15 |
|  | 0.000192 | -0.00044 |
| Skills Training Index | 0.00107 | -0.00148 |
|  | 0.0484 | 0.0459 |
| Supervise 5+ Staff | 0.165 | 0.187 |
|  | 0.393 | -0.722 |
| Supervise 2 to 5 | 0.343 | -0.481 |
|  | 0.049 | -0.244 |
| Formal Business Owner | 0.261 | -0.318 |
| Batak | -0.778 | 0.0622 |
| Java ethnicity | -0.78 | 1.15 |
| Madura | 0.209 | 0.355 |
|  | 0.352 | 0.411 |


| Female | 0.124 |  |
| :--- | ---: | ---: |
|  | 0.212 |  |
| Single | 0.281 | 0.112 |
|  | 0.275 | 0.314 |
| Divorced | 2.708 |  |
|  | .761 |  |
| Widowed | 0.586 | 0.59 |
|  | 0.463 | 0.453 |
| Absent Index | -0.0991 | -0.0826 |
|  | -0.087 | -0.101 |
| Travel to Work | -0.00321 | 0.0061 |
|  | -0.00546 | 0.0066 |
| Constant | $6.691 * * *$ | $6.304 * * *$ |
|  | 0.763 | 0.929 |
|  |  |  |
| Observations | 357 | 234 |
| R-squared | 0.163 | 0.174 |
| Standard errors below coefficient estimates |  |  |
| $* * * \mathrm{p}<0.01, * * \mathrm{p}<0.05, * \mathrm{p}<0.1$ |  |  |

One final check concerns the impact of working conditions on wages. Standard economic theory tells us to expect a tradeoff between working conditions and wages, though we generally see little empirical evidence of such a tradeoff. Indeed, similar findings emerge in this data set.

Working conditions include training in worker rights, protections, union membership, and the availability of menstruation leave. Results are reported in Table 5.10. Coefficients have the expected sign for worker rights training and menstruation leave, but neither is statistically significant. We would expect that the union coefficient might be positive if unions can effectively increase wages. However, the union coefficient is not significantly different from zero.

| Table 5.10. | Working Conditions |  |
| :--- | :---: | :---: |
| Hourly wage (ln) | Total | Female |
|  | $(1)$ | $(2)$ |
| Age | $0.0182^{*}$ | $0.0263^{* *}$ |
|  | 0.0106 | 0.0126 |
| Urban | 0.0324 | -0.0456 |


|  | 0.223 | -0.271 |
| :--- | :---: | :---: |
| Physical Disability | $-4.071^{* * *}$ | $-2.227^{* *}$ |
| Worked in Past | -0.791 | -0.957 |
|  | $-0.394^{* *}$ | $-0.576^{* * *}$ |
| Education | -0.189 | -0.216 |
|  | $0.0849^{* * *}$ | $0.113^{* * *}$ |
| Health Status | 0.0291 | 0.0342 |
|  | -0.0852 | -0.147 |
| Employment Duration | -0.128 | -0.153 |
|  | 0.000124 | $-4.93 \mathrm{E}-05$ |
| Skills Training Index | 0.00108 | -0.0015 |
|  | 0.23 | 0.172 |
| Supervise 5+ Staff | 0.189 | 0.218 |
|  | 0.432 | -0.761 |
| Supervise 2 to 5 | 0.344 | -0.489 |
|  | 0.0348 | -0.0718 |
| Formal Business Owner | 0.265 | -0.328 |
|  | -0.272 | 0.804 |
| Working Conditions Training Index | -0.723 | 0.957 |
|  | -0.0197 | -0.0304 |
| Union | -0.0564 | -0.0664 |
|  | -0.261 | -0.0364 |
| Menstruation Leave | -0.282 | -0.34 |
| Constant | -0.156 | -0.166 |
| Observations | -0.161 | -0.155 |
| R-squared | $7.295^{* * *}$ | $7.065 * * *$ |
| Standard errors below coefficient estimates | 0.823 |  |
| $* * *$ p $<0.01, * *$ p $<0.05, * p<0.1$ | 0.678 |  |
|  | 366 | 242 |
|  | 0.132 | 0.148 |
|  |  |  |

## Chapter 6: Conclusions

## Barriers to the formal sector

## Sociocultural factors

Responses to the scenario featuring a hypothetical switch from informal to formal work showed that participants did see advantages to formal sector work. Most participants believed that community members would view the formal job as more appropriate for the woman in the scenario than the informal job, and most believed that if the woman switched to the formal job she would have more control over the money she earned within her family and would receive more benefits. The scenario responses also showed that type of job is important: Participants were more likely to believe that the community would view the formal job as more appropriate than the informal job if the woman's informal job was as a domestic worker rather than running a warung. While most participants believed that a formal job pays more than an informal job, participants also believed that running an informal warung pays more than a formal job in a factory or a supermarket.

Distance mattered as well: Participants seemed to see a tradeoff between appropriateness and control that comes with an informal job far from home. They were less likely to believe that the community would view her informal job as more appropriate than the formal job if it was located several kilometers from her home, but more likely to believe that she would have more control over the money she earned at that job when it was located several kilometers from her home.

## Demographic and structural factors

We found that men were more likely to be employed outside the home and to be the primary wage earner for their family, where as women spent more time on housework and childcare. When women did work, they often depended on their parents or parents-in-law for childcare. Thus, one significant reason that women might have difficulty entering the formal sector is the difficulty of balancing domestic duties and regular work hours.

Women engaged in trade/selling were more likely to prefer formalization than women in other sectors, and single women were more likely to prefer formalization than either married women or married men. Overall, there was no gender difference in desire to formalize, but in rural areas, female entrepreneurs were more likely to prefer formalization than male entrepreneurs. Education and living in North Sumatra were positively associated with preferring formalization. Interestingly, education, living in a rural area, and living in North Sumatra were also positively associated with the belief that an informal job pays more than a formal job. North Sumatrans were also less likely to
believe that the woman in the hypothetical scenario would receive more benefits (such as maternity leave or paid holidays) if she switched to a formal job. This divide between perceptions among the broader sample and reported preferences among entrepreneurs may be explained by looking again at the reasons participants chose for wanting to stay in the informal sector (Figure 4.7). Only two participants selected "informal sector provides higher income;" the most common reason was the more general "prefer informal sector," which might encompass a variety of reasons.

Other demographic factors affected perceptions of the informal sector as well. Older and rural participants were more skeptical that changing to a job to the formal sector would give the woman more control over the money she earned. Married participants were more likely than single participants to believe that if the woman switched to a formal job she would receive more benefits (such as paid maternity leave and paid holidays)another interesting finding, as single women were more likely to prefer formalization than married women or men.

## Equitable treatment and pay in the formal sector

## Sociocultural factors

Women were seen as better suited to certain types of work, and in need of protection from men; gender differences were viewed as innate and unchanging. Although these ideas are often seen as positive (e.g., women naturally have skills that men lack, and are worthy of protection and special care), they can actually limit women's opportunitiesstereotypes that paint women as better suited to certain types of jobs prevent them from holding other, better-paying jobs. Additionally, a view of gender in which trait differences between men and women are innate and unchanging leads to increased acceptance of inequality (Morton et al., 2009). Participants were generally open to the idea of women working outside of the home, but were more likely to approve of women who were secondary wage earners. Participants supported the idea of equal pay for equal work-both when determining the salaries of two workers in the same job, and when asked about laws promoting equal pay.

## Demographic and structural factors

Gender played a very large role in participants' treatment and pay. Men received better treatment in the workplace; they reported less verbal and sexual harassment, were promoted more often, and received more in weekly, hourly, and bonus pay. On average, women earned 79 percent of the hourly wage of men. Men also had more power within the workplace (they were more likely to be supervisors).

Both men and women with children under the age of 10 earned less than their peers, controlling for age and other demographic characteristics. However, the negative impact was larger for women than for men.

Human capital factors-like education, training, and experience-also played a role, but always in conjunction with gender. The return from formal education was positive, and larger for women than men. The fields of study that women tended to choose paid less than other fields of study, however. Training programs also raised wages, but unlike with formal education, the effect was larger for men than women. The return from experience was positive for all workers, but men received a larger wage gain from this factor than women.

There were several indications of occupational segregation. Men and women tended to have different types of jobs-for example, women were more likely to be domestic workers, to sell goods, or to do home-based work, while men were more likely to work on farms. In addition, a majority of participants reported working mostly with workers of the same gender, and women were much more likely to have a female supervisor than men were.

However, women who chose female-dominated fields received a higher wage than men in the same fields. The female pay differential was negative across all industries and is negative across all of the higher paying professional occupations including professionals, technical assistants, administrative services and human services. The only professional context in which the gender differential was positive for women was for women who were in a formal employment situation or had achieved employer status either by working on her own account or as an employer of temporary and permanent workers.

Demographic factors predicted attitudes about women and their role in the workforce as well. There were generally more conservative attitudes among men, the less educated, and those in North Sumatra. The results also showed a complicated relationship between religion and attitudes: Participants' interpretations of teachings varied, and their personal beliefs did not always follow what they believed their religion teaches. The personal importance of faith played a role as well. When participants believe that an idea is key to their faith (e.g., that men are head of the household), attempts to change that idea will probably be more successful if based on religious sources (e.g., religious texts that promote gender equality).

Finally, we saw the interaction of structural and sociocultural factors in the impact of head of household payments. Both men and women who were household heads earned more than their peers, but the positive impact was larger for men than for women. The scenario responses showed a preference for breadwinners in hiring and payment, which is likely to translate into a preference for men given participants' strong endorsement of the
idea that men are the head of the household. Another way to promote equal pay, then, might be to build on this preference for breadwinners, expanding the concept to include women who are primary wage earners and workers who support elderly parents and younger siblings. Equal pay could be portrayed as a way to ensure that all families are provided for.

## References

Ai, C., \& Norton, E. (2003). Interaction Terms in Logit and Probit Models. Economics Letters, 80, 123-129.

Bahramitash, R., \& Esfahani, H. S. (2011). Veiled Employment: Islamism and the Political Economy of Women's Employment in Iran. Syracuse: Syracuse University Press.

Baker, D. D., Terpstra, D. E., \& Larntz, K. (1990). The influence of individual characteristics and severity of harassing behavior on reactions to sexual harassment. Sex Roles, 22, 305-325.

Barreto, M., \& Ellemers, N. (2005). The perils of political correctness: Men's and women's responses to old-fashioned and modern sexist views. Social Psychology Quarterly, 68, 75-88.

Bastian, B., \& Haslam, N. (2006). Psychological essentialism and stereotype endorsement. Journal of Experimental Social Psychology, 42, 228-235. doi:10.1016/j.jesp.2005.03.003

Better Work Indonesia. (2012). Indonesia baseline data discussion paper: Worker perspectives from the factory and beyond. Retrieved from http://betterwork.com/global/wp-content/uploads/Impact-Research-Indonesia-Baseline-Report-Worker-Perspectives-from-the-Factory-and-Beyond.pdf

Bettio, F. (2008). Occupational segregation and gender wage disparities in developed economies: Should we still worry? In Bettio, F.; Verashchagina, A. (eds.): Frontiers in the Economics of Gender (New York, Routledge), pp. 167-191.

Brambor, T., Clark, W. R., \& Golder, M. (2005). Understanding interaction models: Improving empirical analyses. Political Analysis, 14, 63-82.

Brescoll, V., \& LaFrance, M. (2004). The correlates and consequences of newspaper reports of research on sex difference. Psychological Science, 15, 515-520.

Coleman, J., \& Hong, Y. (2008). Beyond nature and nurture: The influence of lay gender theories on self-stereotyping. Self \& Identity, 7, 34-53. doi:10.1080/15298860600980185

Correll, S. J. (2001). Gender and the career choice process: The role of biased selfassessments. American Journal of Sociology, 106, 1691-1730.
Cuevas, S., Mina, C., Barcenas, M., \& Rosario, A. (2009) Informal Employment in Indonesia. Manila: Asian Development Bank Economics Working Paper, Series No. 156

Cunningham, W. (2001). Sectoral Allocation by Gender of Latin American Workers over the Liberalization Period of the 1990s. World Bank Policy Research Working Paper 2742. World Bank: Washington, DC.

Dar-Nimrod, I., \& Heine, S. J. (2006). Exposure to scientific theories affects women's math performance. Science, 314, 435.

Dardenne, B., Dumont, M., Bollier, T. (2007). Insidious dangers of benevolent sexism: Consequences for women's performance. Journal of Personality and Social Psychology, 93, 764-779.

Djankov, S., La Porta, R., Lopez-de-Silanes, F., \& Shleifer, A. (2002). The regulation of entry. Quarterly Journal of Economics, 117, 1-37.
doi:10.1162/003355302753399436

Dzuhayatin, S.R. (2003). Islam, patriarchy and the state in Indonesia. Emory University, School of Law. Retrieved from http://www.law.emory.edu/ihr/worddocs/ruhaini1.doc

Eagly, A. H., \& Diekman, A. B. (2006). Examining Gender Gaps in Sociopolitical Attitudes: It's Not Mars and Venus. Feminism \& Psychology, 16, 26-34. doi: 10.1177/0959-353506060817

Eagly, A.H., Diekman, A.B., Johannesen-Schmidt, M.C. and Koenig, A.G. (2004). Gender Gaps in Sociopolitical Attitudes: A Social Psychological Analysis. Journal of Personality and Social Psychology, 87, 796-816.

Fiske, S. T., \& Glick, P. (1995). Ambivalence and stereotypes cause sexual harassment: A theory with implications for organizational change. Journal of Social Issues, 51, 97-115.

Firdausy, C. M. (2000). The Social Impact of Economic Crisis on Employment in Indonesia. Center for Economic and Development Studies-Indonesian Institute of Sciences.

Friedman, E., Johnson, S., Kaufmann, D., \& Zoido-Lobaton, P. (2003). Dodging the Grabbing Hand: The Determinants of Unofficial Activity in 69 Countries. Journal of Public Economics, 76, 459-494.

Glick, P., \& Fiske, S. T. (1996). The Ambivalent Sexism Inventory: Differentiating hostile and benevolent sexism. Journal of Personality and Social Psychology, 70, 491-512.

Glick, P., \& Fiske, S. T. (2001). An ambivalent alliance: Hostile and benevolent sexism as complementary justifications for gender inequality. American Psychologist, 56, 109-118.

Glick, P., Fiske, S. T., Mladinic, A., Saiz, J., Abrams, D., Masser, B., et al. (2000). Beyond prejudice as simple antipathy: Hostile and benevolent sexism across cultures. Journal of Personality and Social Psychology, 79, 763-775.

Haslam, N., Rothschild, L., \& Ernst, D. (2000). Essentialist beliefs about social categories. British Journal of Social Psychology, 39, 113-127.

Heilman, M. E. (2012). Gender stereotypes and workplace bias. Research in Organizational Behavior, 32, 113-135.

International Labor Organization. (2007). The informal economy: Enabling transition to formalization. Geneva, Switzerland.

Keller, J. (2005). In genes we trust: The biological component of psychological essentialism and its relationship to mechanisms of motivated social cognition. Journal of Personality and Social Psychology, 88, 686-702. doi:10.1037/00223514.88.4.686

Klapper, L., Amit, R., Guillén, M., \& Quesada, J. M. (2007). Entrepreneurship and Firm Formation Across Countries. World Bank Policy Research Working Paper 4313. World Bank: Washington, DC.

La Botz, D. (2001). Made in Indonesia: Indonesian workers since Suharto. Cambridge, MA, South End Press.

Magruder, J. R. (2013). Can minimum wages cause a big push? Evidence from Indonesia. Journal of Development Economics, 100, 48-62.

Manning, C. (1998). Indonesian Labour in Transition: An East Asian Success Story? Cambridge: Cambridge University Press.

Morton, T. A., Postmes, T., Haslam, S. A., \& Hornsey, M. J. (2009). Theorizing gender in the face of social change: Is there anything essential about essentialism?
Journal of Personality and Social Psychology, 96, 653-664.
Nisbett, R. E., \& Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. Psychological Review, 84, 231-259.

Norton, M. I., Vandello, J. A., \& Darley, J. M. (2004). Casuistry and social category bias. Journal of Personality and Social Psychology, 87, 817-831.

Phelan, J. E., Moss-Racusin, C. A., \& Rudman, L. A. (2008). Competent yet out in the cold: Shifting criteria for hiring reflects backlash towards agentic women. Psychology of Women Quarterly, 32, 406-413.

Poncela, A.M., \& Steiger, B. (1996). The Disruptions of Adjustment: Women in Nicaragua. Latin American Perspectives, 23, 49-66.

Prentice, D. A., \& Miller, D. T. (1992). When small effects are impressive. Psychological Bulletin, 112, 160-164. doi:10.1037/0033-2909.112.1.160

Prime, J., Moss-Racusin, C.A., \& Foust-Cummings, H. (2009). Engaging men in gender initiatives: Stacking the deck for success. New York, NY: Catalyst.

Pryor, J. B., Giedd, J. L., \& Williams, K. B. (1995). A social psychological model for predicting sexual harassment. Journal of Social Issues, 51, 69-84.

Radhakrishnan, U. (2010). A Dynamic Structural Model of Contraceptive Use and Employment Sector Choice for Women in Indonesia. Social Science Research Network Working Paper.

Richard, F. D., Bond, C. F., Jr., \& Stokes-Zoota, J. J. (2003). One hundred years of social psychology quantitatively described. Review of General Psychology, 7, 331-363. doi:10.1037/1089-2680.7.4.331

Rhodes, M., \& Gelman, S. A. (2009). A developmental examination of the conceptual structure of animal, artifact, and human social categories across two cultural contexts. Cognitive Psychology, 59, 244-274. doi: 10.1016/j.cogpsych.2009.05.001

Rosenthal, R. (1990). How are we doing in soft psychology? American Psychologist, 45, 775-777. doi:10.1037/0003-066X.45.6.775

Rudman, L. A., \& Glick, P. (2001). Prescriptive gender stereotypes and backlash toward agentic women. Journal of Social Issues, 57, 732-762.

Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. American Psychologist, 52, 613-629. doi:10.1037/0003066X.52.6.613

Tepper, B. J. (2007). Abusive supervision in work organizations: Review, synthesis, and research agenda. Journal of Management, 33, 261-289.

Uhlmann, E. L., \& Cohen, G. L. (2005). Constructed criteria: Redefining merit to justify discrimination. Psychological Science, 16, 474-480.

US Department of State. (2007). 2006 Country Reports on Human Rights Practices: Indonesia, US Department of State, Bureau of Democracy, Human Rights and Labor, Washington, DC. Retrieved from http://genderindex.org/country/indonesia

Walton, G. M., \& Spencer, S. J. (2009). Latent ability: Grades and test scores systematically underestimate the intellectual ability of negatively stereotyped students. Psychological Science, 20, 1132-1139.

Watkins, M. B., Kaplan, S., Brief, A. P., Shull, A., Dietz, J., Mansfield, M., \& Cohen, R. (2006). Does it pay to be a sexist? The relationship between modern sexism and career outcomes. Journal of Vocational Behavior, 69, 524-537.

Weeden, K.A.; Sorensen, J.B. (2001). Sex segregation in comparative perspective. Retrieved from http://www.stanford.edu/~sorensen/industrysexseg.pdf

Williams, M. J., \& Eberhardt, J. (2008). Biological conceptions of race and the motivation to cross racial boundaries. Journal of Personality and Social Psychology, 94, 1033-1047. doi:10.1037/0022-3514.94.6.1033

Woodzicka, J. A., \& LaFrance, M. (2001). Real versus imagined gender harassment. The Journal of Social Issues, 57, 15-30. doi:10.1111/0022-4537.00199

World Bank. (2007). Global Monitoring Report - Millennium Development Goals: Confronting the Challenges of Gender Equality and Fragile States. World Bank: Washington, DC.

## Appendix

## Zero-sum belief items

1. When women work they are taking jobs away from men.
2. When women get rights they are taking rights away from men.
3. Rights for women mean a loss of rights for men.
4. Efforts to reduce discrimination against women have led to increased discrimination against men.

## Essentialism items

1. Gender is a very important part of what makes people who they are.
2. People that are the same gender have many things in common.
3. Knowing someone's gender tells you a lot about a person.
4. People are either male OR female, there is nothing in between.
5. Gender is a natural category.
6. Gender categories are important in all cultures around the world.
7. Men have a similar nature.
8. Women have a similar nature.

## Wage gap explanations

On average, women in Indonesia currently earn less than men, even when they do the same jobs. Which of the factors below do you think help explain why women are paid less for the same work?

1. Discrimination against women
2. Biological differences between women and men
3. Women's domestic responsibilities
4. Women making different choices
5. Women having fewer opportunities
6. Men being paid more as head of the household
7. Men doing more physical, difficult, or dangerous work

## Benevolent sexism items

1. In a disaster, women ought to be rescued before men.
2. Many women have an innocence that few men possess.
3. Women should be cherished and protected by men.
4. Women should be appreciated by men.
5. Women, compared to men, tend to have a superior moral sensibility.
6. Men should be willing to sacrifice their own well being in order to provide financially for the women in their lives.
7. Women, as compared to men, tend to have a more refined sense of culture and good taste.

## Hostile sexism items

1. Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for "equality."
2. Most women interpret innocent remarks or acts as being sexist.
3. Women are too easily offended.
4. Feminists are seeking for women to have more power than men.
5. Most women fail to appreciate fully all that men do for them.
6. Women seek to gain power by getting control over men.
7. Women exaggerate problems they have at work.
8. Once a woman gets a man to commit to her, she usually tries to put him on a tight leash.
9. When women lose to men in a fair competition, they typically complain about being discriminated against.
10. Many women get a kick out of teasing men by seeming sexually available and then refusing male advances.
11. Feminists are making unreasonable demands of men.

Table 3.24. Percentage of participants perceiving each scenario as harassment, and percentage selecting each possible action.

| Scenario | N | \% <br> Perceiving <br> as <br> harassment | Report it to a coworker at your company | Report it <br> to <br> someone <br> more <br> senior at <br> your <br> company | Report <br> it to <br> your <br> spouse | Report it to another family member or friend | React physically (e.g., push the person away) | React verbally (e.g., tell the person to stop) | Ignore it/do nothing | Avoid the person | Leave <br> your job | Other | Not sure | Don't want to answer |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Holes in restroom wall | 98 | 98\% | 32\% | 56\% | 17\% | 9\% | 7\% | 24\% | 3\% | 8\% | 9\% | 5\% | 3\% | 12\% |
| Requests affair; negative consequences for job if denied | 98 | 95\% | 23\% | 44\% | 21\% | 9\% | 8\% | 21\% | 2\% | 14\% | 20\% | 7\% | 1\% | 11\% |
| Requests affair; positive consequences for job if accepted | . 98 | 94\% | 23\% | 43\% | 16\% | 10\% | 10\% | 29\% | 5\% | 22\% | 16\% | 4\% | 2\% | 10\% |
| Puts his arm around her | 104 | 93\% | 27\% | 30\% | 17\% | 9\% | 18\% | 30\% | 9\% | 17\% | 5\% | 3\% | 6\% | 10\% |
| Obscene gestures directed at her | 104 | 93\% | 27\% | 38\% | 10\% | 5\% | 6\% | 29\% | 9\% | 15\% | 5\% | 2\% | 4\% | 15\% |
| Coworker staring | 98 | 84\% | 12\% | 30\% | 7\% | 8\% | 3\% | 16\% | 1\% | 14\% | 8\% | 4\% | 3\% | 11\% |
| Obscene gestures not directed at her | 104 | 83\% | 27\% | 38\% | 10\% | 5\% | 6\% | 29\% | 9\% | 15\% | 5\% | 2\% | 4\% | 15\% |
| Mean |  | 91\% | 25\% | 40\% | 14\% | 8\% | 8\% | 25\% | 5\% | 15\% | 10\% | 4\% | 3\% | 12\% |


[^0]:    ${ }^{1}$ Age, education, and duration are continuous measures whereas all others are binary. Female is coded 1 for female, 0 for male. Urban is coded 1 if the entrepreneur lives in a city, 0 if in a rural area. North Sumatra is coded 1 if the entrepreneur is in North Sumatra, 0 if in East Java. Married is coded 1 if married, 0 if single. Trade is coded 1 if the business is categorized as "trading/selling goods," 0 if another sector.

[^1]:    ${ }^{2}$ A logistic regression using "Prefer the informal economy," the most common answer, failed the Chi-squared test of model fit.

[^2]:    ${ }^{3}$ The baseline category selected in the regression is "the formal job," and the results of the other categories are available upon request. A control for the own-account workers, who comprised 35 percent of the participants, never emerged as statistically significant. Including this control also reduced the number of observations by nearly 30 percent.

