

Gender differences in employment and why they matter

Gender differences in access to economic opportunities are frequently debated in relation to gender differences in labor market participation. This chapter looks beyond such participation to focus on productivity and earnings—for two reasons. First, a focus exclusively on labor force participation provides only a partial picture of women’s and men’s experience in the labor market. Far from being a simple decision about whether or not to join the labor force, participation in market work involves reallocating time across a variety of activities—a process that can be difficult and costly, particularly for women. And a focus solely on participation masks gender differences in the nature and dynamics of work.

Second, despite significant progress in female labor force participation over the past 25 years (see chapter 1 and box 5.1), pervasive and persistent gender differences remain in productivity and earnings across different sectors and jobs. Indeed, many women around the world appear to be caught in a productivity trap—one that imposes significant costs on women’s welfare and economic empowerment today and serious disincentives to invest in the women of tomorrow.

Despite lower earnings and productivity, women are not worse farmers, entrepreneurs, and workers than men. We argue instead that gender differences in labor productivity and earnings are primarily the result of differences in the economic activities of men and women—although gender differences in human capital and in the returns to worker and job characteristics also play a role.

Indeed, men’s and women’s jobs differ greatly, whether across sectors, industries, occupations, types of jobs, or types of firms. While these differences evolve with economic development, the resulting changes in the structure of employment are not enough to eliminate employment segregation by gender. So, women all over the world appear to be concentrated in low-productivity jobs. They work in small farms and run small firms. They are overrepresented among unpaid family workers and in the informal sector. And they rarely rise to positions of power in the labor market.

Three main factors lead to gender segregation in access to economic opportunities among farmers, entrepreneurs, and wage workers: gender differences in time use (primarily resulting from differences in care responsibilities), gender differences in access to productive inputs (particularly land and credit), and gender differences stemming from market and institutional failures. Because the factors causing segregation are common across sectors of economic activity, we can integrate the analysis of the farming, entrepreneurial, and wage sectors within a common framework.

Gender segregation in access to economic opportunities in turn reinforces gender differences in time use and in access to inputs, and perpetuates market and institutional failures. For instance, women are more likely than men to work in jobs that offer flexible working arrangements (such as part-time or informal jobs) so that they can combine work with care responsibilities. But because part-time and informal jobs often pay lower (hourly) wages than

BOX 5.1 Closing the access gap—Recent advances in female labor force participation

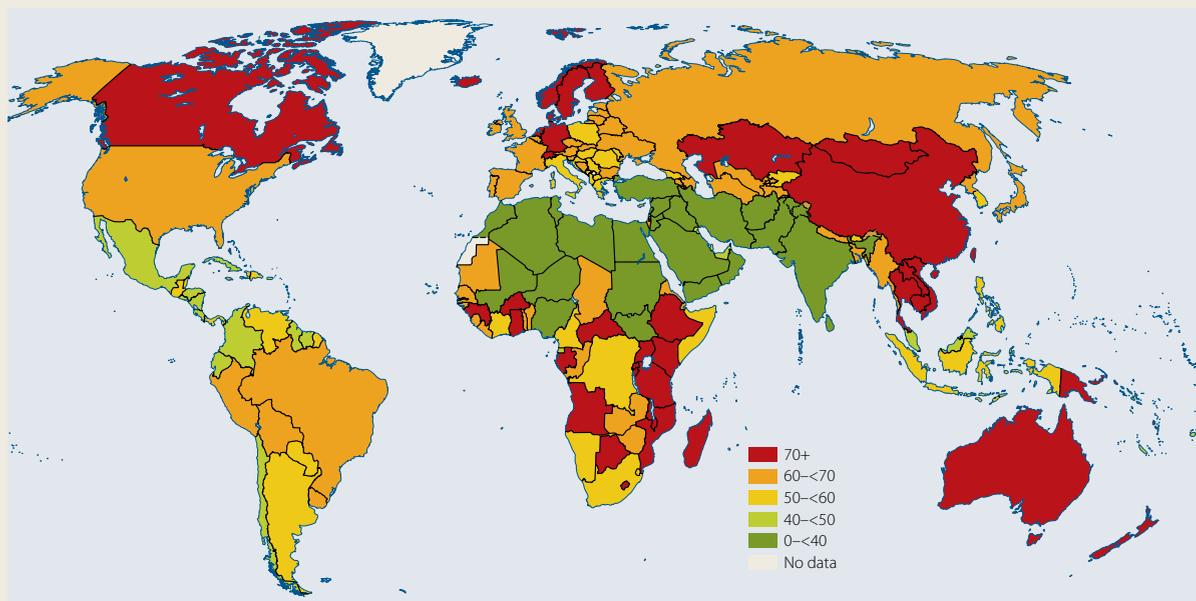
Over the past quarter century, women have joined the labor market in increasing numbers, partially closing the gender participation gap (see chapter 1). Between 1980 and 2009, the global rate of female labor force participation rose from 50.2 percent to 51.8 percent, while the male rate fell from 82.0 percent to 77.7 percent. Consequently, gender differentials in labor force participation rates declined from 32 percentage points in 1980 to 26 percentage points in 2009.^a

Female labor force participation is lowest in the Middle East and North Africa (26 percent) and South Asia (35 percent) and highest in East Asia and Pacific (64 percent) and Sub-Saharan Africa (61 percent) (box map 5.1.1). Despite large cross-regional differences, participation rates have converged over time as countries and regions that started with very low rates (primarily Latin America and the Middle East and North Africa) experienced large increases and those with higher rates (primarily Europe and Central Asia and East Asia and Pacific) experienced small declines (box figure 5.1.1).

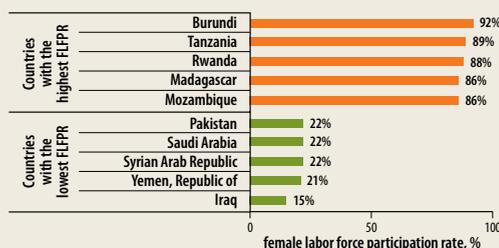
The combined effect of economic development, rising education among women, and declining fertility goes a long way in explaining changes in female participation rates over the past 25 years. Globally, economic development has been accompanied by growing economic opportunities for women (particularly in manufacturing and services). And greater trade openness and economic integration have, in many countries, led to significant growth of export-oriented sectors, with some, such as garments and light manufacturing, employing large numbers of women in recent decades (see chapter 6). Both developments have translated into stronger market incentives for women's labor force participation in the form of rising demand for female labor and, in some cases, higher absolute and relative wages.

In addition, economic development has been accompanied by improvements in infrastructure, including electricity, water, roads, and transport, which can alleviate time constraints and reduce the

BOX MAP 5.1.1 Female labor force participation—Some high rates and some low



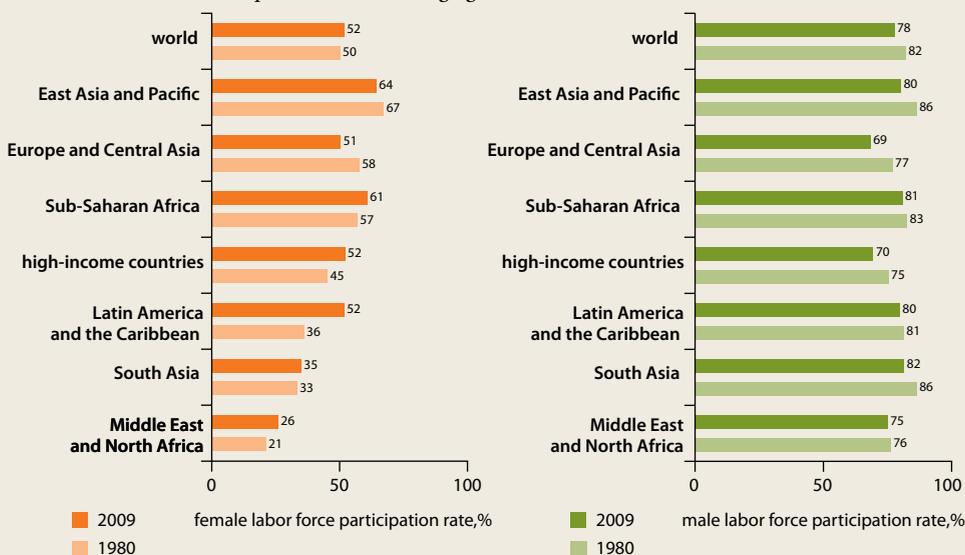
Source: International Labor Organization (2010a).



(box continues on next page)

BOX 5.1 Closing the access gap—Recent advances in female labor force participation (continued)

BOX FIGURE 5.1.1 Participation rates—Converging



Source: World Development Indicators 2011.

transaction costs associated with market work, particularly among women.

Changes in education have also facilitated women’s integration in the labor market. More educated women have traditionally exhibited higher participation rates than their less educated counterparts; so as education levels have increased around the world, more women have ventured into paid work. In Latin America, this increase in human capital explains 42 percent of the observed increase in female labor force participation since 1975.^b

Similarly, changes in family formation have increased the labor market attachment for young women and women with small children. Marriage has traditionally been associated with a decline in female labor force participation, followed by further reductions once children are born. In the Arab Republic of Egypt, women who had just married in 1997 were 40 percent less likely to participate in the labor market than those to be married within a year of the survey (19 versus 29 percent), whereas 10 years later the gap between the two groups had narrowed substantially (32 and 27 percent, respectively), suggesting that some women rejoin the labor force several years after marriage.^c Increases in the age of marriage and declines in fertility are thus likely to have contributed to higher participation rates in most countries and regions.

That said, the impact of economic development and changes in education and family formation on female labor force participation varies across individuals, countries, and regions and ultimately depends on institutions, formal and informal, as well as on individual preferences. Where changes in markets and institutions have aligned to strengthen incentives and erode constraints to participation, women have joined the labor force in large numbers. In contrast, where other constraints existed—particularly in informal institutions—or where market and institutional changes generated opposing forces, the impacts have been much more muted.

For instance, sustained economic growth has failed to boost participation in South Asia, while significant improvements in education have had only a limited impact on participation rates in the Middle East and North Africa. In both cases, social norms for women’s role in the economic sphere may have weakened the connection between stronger incentives to participation in market work and actual outcomes. Similarly, following the transition out of communism, female labor force participation in Eastern Europe declined from (a relatively high) 56 percent to 50 percent in 2008. The decline likely reflects institutional changes associated with the regime change, whereby participation in market work ceased to be a mandate for most women, and with the retrenchment of some support structures for working mothers, such as child care.

More broadly, both formal and informal institutional structures can hinder (or support) female labor force participation. In many countries across all regions, legislation regulating market work, such as restrictions on hours and industry of work, treats men and women differently. Countries that impose these restrictions on women also have on average lower female labor force participation (45 percent, compared with 60 percent in countries with no restrictions) and higher gender participation gaps (45 percent, compared with 25 percent in counties with no restrictions).

In addition, regulation of parental benefits and retirement can also affect female participation. Most countries provide some sort of maternity leave, but benefits vary considerably in the number of days, the percentage of leave that is paid, and who pays for it. Fewer countries provide paternity leave, often under more limited conditions. Differences in parental leave between men and women could increase the perceived cost of employing women and therefore diminish their employment opportunities. And while earlier retirement ages for women workers have, in many cases, been motivated by protective instincts, they can create dis-

BOX 5.1 *Closing the access gap—Recent advances in female labor force participation* (continued)

parities in lifetime earnings, pension benefits, and career opportunities, thus discouraging women from market work.

In recent years, increasing attention has been paid to the impact of informal institutions, particularly cultural or social norms, on female labor force participation. This research suggests that more traditional views negatively correlate, in some cases strongly, with female employment rates (and the gender wage gap).^d The impact of such views appears to be particularly binding for women at two distinct but related points in time: adolescence and after marriage (also see box 5.10 on family formation and female labor force participation in Egypt). In both cases, norms related to gender roles for

care and housework and for mobility can limit (young) women's participation in market work (see chapter 4 and spreads on WDR2012 Gender Qualitative Assessment).

Finally, individual preferences for market work can also explain differences in participation rates across and within countries. Although culture and social norms within a country or particular group undoubtedly influence preferences, they nonetheless play an independent and distinct role through their impact on the household decision-making process. As was the case with social norms, more traditional individual attitudes and preferences are negatively correlated with participation in market work.^e

a. World Bank 2011.

b. Chioda, García-Verdú, and Muñoz Boudet, forthcoming.

c. World Bank 2010a.

d. Antecol 2000; Fernández and Fogli 2006; Fortin 2005; Goldin 2006.

e. Berniell and Sánchez-Páramo 2011b; Fortin 2005.

full-time and formal jobs, a high concentration of women in these lower-paying jobs weakens the incentives to participate in market work and thus reinforces the specialization in nonmarket (including care) and market work along gender lines within the household.

It is precisely this interaction of segregation with gender differences in time use, access to inputs, and market and institutional failures that traps women in low-paying jobs and low-productivity businesses. Breaking out of this productivity trap thus requires interventions that lift time constraints, increase women's access to productive inputs, and correct market and institutional failures.

UNDERSTANDING GENDER DIFFERENCES IN PRODUCTIVITY AND EARNINGS

Gender differences in productivity and earnings are systematic and persistent. Whether in agriculture or off the farm, among those self-employed or in wage employment, women exhibit lower average productivity and earn lower wages than men. These differences have been documented in both developed and developing countries, and although they have declined over time (primarily as a result of the reduction in the education gap), they remain significant.¹

Female farmers have, on average, lower productivity than male farmers. Estimated yield gaps based on female-male comparisons across

households range widely (table 5.1), but many cluster around 20–30 percent.² Results from studies that compare the performance of men and women within households, and thus account for possible differences in market conditions and institutional constraints, provide further support for this finding. For instance, in parts of Burkina Faso, women's yields were 18 percent lower than those of male farmers in the same household.³

Similarly, female entrepreneurs exhibit lower productivity than male entrepreneurs.⁴ Value added per worker is lower in firms managed by women than in those managed by men in urban areas in Europe and Central Asia (34 percent lower), Latin America (35 percent), and Sub-Saharan Africa (6–8 percent).⁵ There are also significant differences in profitability between female-owned and male-owned businesses operating in rural Bangladesh, Ethiopia, Indonesia, and Sri Lanka. The differences are largest in Bangladesh, where average output per worker was eight times higher in firms operated by men than in those operated by women—and smallest in Indonesia, where output per worker was 6 percent lower among female-owned firms.⁶

Female-owned enterprises also perform less well than male-owned enterprises in other dimensions. They tend to be less profitable⁷ and to generate lower sales.⁸ Survival probabilities are also lower among female-owned firms, although the evidence is more mixed.⁹

Differences in average wages between salaried men and women have been extensively

TABLE 5.1 *Female farmers have lower average productivity than male farmers*

Country	Year/season	Type of gender comparison	Crop(s)	Productivity measure	Average gender difference in productivity (%)
Nigeria (Osun State)	2002/03	Gender of the farmer	Rice	Yields	40
Benin (Central)	2003–04	Gender of the farmer	Rice	Yields	21
Ghana	2002 and 2004	Gender of the farmer	Cocoa	Yields	17
Malawi (National)	1998–99	Gender of the farmer	Maize	Yields	11–16
Kenya (Western)	1971	Gender of the farmer	Maize	Yields	4
Kenya (Western)	2004/05	Gender of head of household	Maize	Yields	19
Kenya (Subnational)	1989/90	Gender of the farmer	Maize, beans, and cowpeas	Gross value of output per hectare	7.7
Ethiopia (Central Highlands)	1997	Gender of head of household	All farm output	Yields	26

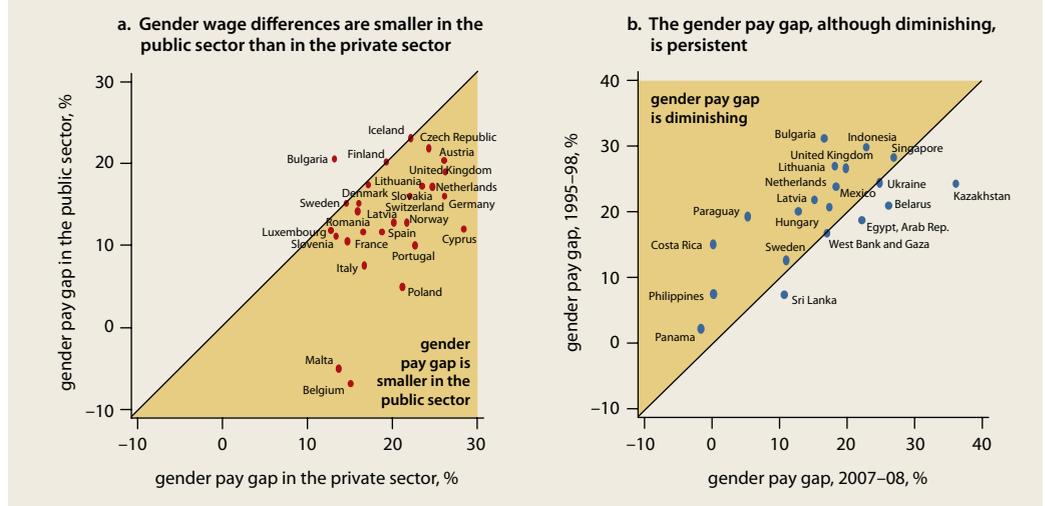
Sources: Alene and others 2008; Gilbert, Sakala, and Benson 2002; Kinkinginhoun-Médagbé and others 2010; Mook 1976; Oladeebo and Fajuyigbe 2007; Saito, Mekonnen, and Spurling 1994; Tiruneh and others 2001; Vargas Hill and Vigneri 2009.

documented in both developed and developing countries¹⁰ (see figure 2.8 in chapter 2). Gaps have declined over time but remain significant in the formal and informal sectors, where women often do casual and piece work.¹¹ Gaps tend to be smaller in the public sector (figure 5.1).

What lies behind these systematic gender differences in productivity and earnings? Three possible explanations: differences in the charac-

teristics of female and male workers, differences in the types of activities and jobs that women and men do, and differences in the returns to both worker and job characteristics. We argue here that while differences in worker characteristics (especially in human capital) and returns matter, it is primarily differences in jobs that account for the gender gaps in productivity and earnings.

FIGURE 5.1 *There are systematic gender differences in earnings*



Source: WDR 2012 team estimates based on the Structure of Earnings Survey, Eurostat.

Source: WDR 2012 team estimates based on LABORSTA, International Labour Organization.

Note: The 45° line in each figure above shows parity in the values on the vertical and horizontal axis.

Gender gaps in education and experience

Women are still less educated (in some countries) and more likely to suffer career interruptions than men (primarily because of childbearing), although the differences have narrowed. Differences in education levels are still significant among older workers in some countries but have disappeared among younger workers almost everywhere (see chapters 1 and 3). In contrast, the number of years an individual has been employed is greater for men in 15 of 19 countries with data, ranging from 0.3 years in Lithuania to 5.4 years in Ireland.¹² While insignificant among younger workers (ages 18–25), the gender differences in experience are most prominent among men and women ages 26–39, suggesting that they arise mainly during the childbearing years.

Because education and work experience are valuable inputs into production, gender differences along these dimensions contribute to differences in productivity and earnings. Farms operated by more educated and experienced individuals exhibit higher productivity than comparable businesses, so gender differences in human capital translate into differences in agricultural productivity.¹³ Similarly, less education and lower access to business training among female entrepreneurs can hold their productivity down.¹⁴ And in both developed and developing countries, differences in human capital have traditionally been a key contributor to the gender wage gap.¹⁵

The recent closing of the education gap has contributed to the observed narrowing in the gender wage gap. But it has also diminished the explanatory power of educational differences for the remaining gap. After controlling for individual characteristics and place of residence, education differences between men and women account for 10–50 percent of the observed wage gap in 5 low- and middle-income countries (of 53) and for 0–10 percent in an additional 5 low- and middle-income countries and 3 high-income countries (of 17) with data. These low- and middle-income countries are mostly those where gender differences in education levels are still significant. In the remaining countries, gender education differences are either small or have reversed so that women have higher education levels than men. In these cases, education not only does not explain the observed gap—when taken into account, it actually increases the unexplained gap.¹⁶

In contrast, gender differences in actual experience have narrowed less and remain significant. As a result, their impact on earnings has received special attention in developed countries, where gender differences in education are minimal but women continue to bear the responsibility for child rearing. In the United States and the United Kingdom, career interruptions associated with childbearing and other family events mean lower wages for women with children than for other women. Wage growth slows significantly after having children, and the pay penalty, higher for skilled women, grows as time since the birth passes.¹⁷

Further narrowing of the education and experience gaps will undoubtedly contribute to closing the gender gap in productivity and earnings. But given that significant wage gaps remain despite enormous progress in closing the education gap, further improvements in human capital alone are unlikely to be sufficient as long as gender differences remain in returns and, especially, in employment and care responsibilities.

Gender differences in returns to human capital and other productive inputs

Differences in returns could explain gender differences in productivity and earnings if gender matters in production and in determining wages beyond systematic differences in individual and job characteristics between men and women.

Women are not worse farmers and entrepreneurs than men

In agriculture, gender differences in productivity almost always disappear when access to land and productive inputs are taken into account. Similarly, productivity differences between female-owned and male-owned businesses are often explained by differences in access to and use of productive resources, where these differences are primarily a function of the business size and sector of operation rather than a gender-specific factor.¹⁸ Among African firms in urban areas, the median female-owned firm in the formal sector has 2.5 times less start-up capital than the median male-owned firm, but it has 5 times more start-up capital than the median female-owned firm in the informal sector. The same can be said about the number of paid employees in the firm.¹⁹

This evidence suggests that women are as efficient as men in production when given access to

BOX 5.2 *Women in the boardroom*

Women have limited presence on boards of directors around the world. The share of female directors ranges from 40 percent in Norway, where the government imposed a quota, to 21 percent in Sweden, and to less than 2 percent in Bahrain, Japan, Jordan, the Republic of Korea, Qatar, Saudi Arabia, and the United Arab Emirates.^a Interestingly, the fraction of companies with at least one female director presents a more positive picture, which suggests that large numbers of companies engage in what could be called gender tokenism—90 percent of French companies have at least one woman director, for example, while only 14 percent of all directors are women.

Besides raising concerns about equity, low gender diversity is seen by many as undermining a company's potential value and growth. Higher diversity is often thought to improve the board's functioning by increasing its monitoring capacity, broadening its access to information on its potential consumer base, and enhancing its creativity by multiplying viewpoints.^b Greater diversity implies that board directors can be selected from a broader talent pool.^c But it could also lead to more conflict and diminished decision power.^d

The impact is difficult to measure, however. Showing that companies with more female directors perform better, as a large fraction of the existing literature does, is not enough. More successful firms may have more resources to ensure higher diversity, in which case diversity results from success and not the other way around. It is thus important to be able to attribute improvements in firm performance to the presence of female board directors.

The causal evidence presents mixed results. Carter and others show that a female presence on the board of directors leads to better performance among Fortune 500 firms, primarily through its effects on the board's audit function.^e Information for a sample of U.S. firms presents similar results, but positive impacts are limited to firms with weak governance.^f The main channels are higher attendance rates and better board monitoring. Others have found evidence of board gender diversity leading to increased gender diversity in the firm's top management team.^g In contrast, in a study of about 2,500 Danish firms, female directors elected by staff have a positive effect on performance but other female directors have a negative effect.^h

a. CWDI and IFC (2010) as cited in *Directors and Boards* magazine 2010.

b. Carter and others 2007.

c. Adams and Ferreira 2009.

d. Hambrick, Cho, and Chen 1996.

e. Carter and others 2007.

f. Adams and Ferreira 2009.

g. Bilimoria 2006.

h. Smith, Smith, and Verner 2005.

the same inputs—and that, when provided with the same amount of resources, female farmers and entrepreneurs can be as productive as their male counterparts. In Ghana, where evidence of gender differences in farming practices initially

suggested that women were worse farmers than men, closer examination showed the practices to be optimal given the land tenure insecurity for women.²⁰

Some authors argue, however, that gender differences in management and business performance reflect differences in women's and men's attitudes toward risk and competition, as well as toward personnel management and business organization—where these differences could be innate or learned.²¹ This literature has focused primarily on the impact of gender on entrepreneurship and firm performance in developed countries. Some studies have analyzed the role of gender differences in management in enhancing firm productivity, with a focus on the (positive) impact of women in boardrooms on firm performance (box 5.2).

Others have argued that gender differences in attitudes relevant to business explain why women are less likely to become entrepreneurs and why, even when they do, men tend to outperform them in their firms' investment and growth. Traditional female roles and images may influence women's perceptions of their abilities and undermine their self-efficacy and potential, including that for growing their business (see chapter 4).²² Evidence from experimental studies suggests that personal characteristics do not affect men's and women's entrepreneurial behavior differently, with the exception of individual perceptions of one's own skills, likelihood of failure, and existence of opportunities.²³

However, the evidence on the aggregate impact of differences in management and beliefs on gender differences in productivity is still limited and mixed. We therefore conclude that the existing evidence, taken as a whole, suggests that women are not worse farmers and entrepreneurs than men.

Why do women's jobs pay less?

Women's jobs do indeed pay less than men's jobs. First, even after accounting for observable

“ [Women] are discriminated against in the salary even though they both do the same work; for example at . . . the local plastics factory, the woman gets 900 NIS (\$247) a month and the man gets 1,800 NIS (\$495). ”

Young woman, urban West Bank and Gaza

differences in worker and job characteristics, a significant fraction of the gender wage gap remains unexplained.²⁴ Second, wages in female-dominated sectors and occupations are lower than those in male-dominated sectors and occupations. This phenomenon has received much attention, and abundant evidence shows that individual wages vary systematically with the gender composition of occupations.²⁵

Two types of explanations have been volunteered for these stylized facts: one is gender discrimination in the labor market, and the other is (voluntary) selection of men and women into different sectors and occupations, primarily in response to their different care responsibilities. That is, women are more likely to choose jobs that allow them to adjust working hours and to exit and enter the labor market more frequently and at a lower cost. The evidence provides (partial) support for both.

An unexplained gender wage gap has often been interpreted as evidence of labor market discrimination, but caution is needed in interpreting these results because they could reflect additional unobserved or unmeasured differences in worker and job characteristics between men and women.²⁶

Recent studies of gender wage differentials and discrimination have taken a new approach. A first set compares men and women in especially homogenous groups, using extensive information on qualifications to minimize the effect of gender differences in unmeasured characteristics.²⁷ These studies still find an unexplained wage gap (ranging from 12 to 20 percent), albeit a smaller one than when comparing more heterogeneous groups of workers. A second set tests the economic prediction that competitive forces in the product market should reduce or eliminate discrimination in labor and other factor markets.²⁸ Consistent with this reasoning, several authors analyze the impact of changes in market power, deregulation, and increased competition through trade on the gender wage gap.²⁹ In all cases, the results suggest some gender discrimination in pay. A third complementary set of studies focuses on discrimination in hiring rather than in pay by presenting job candidates with equivalent characteristics to potential employers. Its results are mixed (box 5.3).

Most evidence on gender discrimination in labor markets comes from developed coun-

BOX 5.3 *Gender discrimination in hiring? Evidence from employment audit studies*

Employment audit studies aim at isolating the impact of gender (or other types of) discrimination from that of other factors in the hiring decision by presenting otherwise identical female and male job candidates to potential employers. Results are mixed, apparently depending on the context and on the study's design.

One study found significant evidence of discrimination against women in upscale restaurants in Philadelphia.^a Female candidates were 0.4 percentage points less likely to get an interview and 0.35 percentage points less likely to receive a job offer than comparable male candidates. These results should be interpreted with caution, however, because individual characteristics such as personality and appearance may have played a role in the hiring decision.

To address the diminished comparability resulting from individual differences in personal interactions, some studies used written applications instead of actual "fake" job applicants.^b They failed to find systematic evidence of gender discrimination, although they did find some suggestive gender stereotyping and statistical discrimination. A similar approach has assessed the motherhood penalty in hiring. Correll, Benard, and Paik found that single women were more likely to be called for interviews than single men, while childless women received 2.1 times more calls than equally qualified mothers.^c A third set of studies followed real candidates during their job search process and examined differences in hiring rates between men and women. The evidence was inconclusive.^d In a related study examining the impact of gender-blind auditions by symphony orchestras, Goldin and Rouse found evidence of discrimination.^e

a. Hellerstein, Neumark, and Troske 1997.

b. Bravo, Sanhueza, and Urzua 2008; Riach and Rich 2006.

c. Correll, Benard, and Paik 2007.

d. Moreno and others 2004.

e. Goldin and Rouse 2000.

tries and thus may not be very informative for developing countries. Indeed, the coverage of antidiscriminatory regulation and, especially, enforcement capacity are likely to increase with income, suggesting that the severity and reach of discrimination could be worse in developing countries. In Pakistan, female teachers in private schools in rural areas are paid 30 percent less than their male counterparts, and the difference persists even after individual and school characteristics are taken into account.³⁰ But more systematic information is needed.

The selection hypothesis relies on the notion that, because of care and other responsibilities, women are more likely than men to choose occupations that offer more flexibility and that do not require large or continual investments in skills unique to a firm or group of firms—or occupations where skills do not depreciate significantly because of career interruptions.³¹ These

BOX 5.4 *What do we mean by employment segregation by gender?*

This Report uses the term *employment (or labor market) segregation by gender* to refer to differences in the kind of jobs men and women do. Although this term is most frequently used to talk about differences in the distribution of male and female wage and salaried workers across industries and occupations, this Report argues that similar gender differences occur in the jobs and activities undertaken by farmers and entrepreneurs. And it expands the discussion of segregation to include such differences because doing so provides insights about the root causes of gender differences in employment outcomes.

Because farming and entrepreneurial activities differ from wage employment in various ways, it is important to clarify what the term *segregation* refers to in each of these spheres. In talking about farmers, the discussion focuses on gender differences in farm size (measured by land size) and in market orientation of production. In talking about entrepreneurship, the discussion focuses on firm size (measured by number of employees) and sector of operation. Some evidence is also presented on gender differences in the motivation to become an entrepreneur and the firm's growth orientation. In talking about wage employment, the discussion focuses on the industry and occupation of employment. The term employment segregation therefore refers to systematic differences along any of these dimensions.

Note that segregation results from a combination of gender-differentiated constraints in access to specific economic opportunities (including discrimination) and sorting based on gender-based preferences.

tend to be occupations where the returns to skills and experience are lower and, other things equal, so are wages.

The higher concentration of women in these jobs would then explain why female-dominated occupations pay lower wages than male-dominated ones. Evidence from the United States shows that predominantly female jobs pay lower wages to women *and* men in these jobs largely because of their (unmeasured) skill-related characteristics and tastes. Confirming this, it has been shown that once skill-related job characteristics are taken into account, the negative impact of the share of female employment on wages is reduced by 25 percent for women and 50 percent for men.³²

In developing countries, higher job flexibility is usually found in informal employment.

And although the jury is still out on how much employment is voluntary in the informal sector, the reality is that the returns to skills are, on average, lower. Evidence from the Arab Republic of Egypt, Tanzania, and several European countries suggests that the returns to education and experience increase with firm size and are larger in the formal sector.³³ Given that women are overrepresented among informal workers, this would translate into female jobs paying less than male jobs.

There are men's jobs and women's jobs: Employment segregation by gender

There are significant and systematic differences between men's and women's jobs, whether across sectors, industries, occupations, types of jobs, or types of firms (the phrase "employment segregation by gender" refers to these differences) (box 5.4). Women are more likely than men to work in agriculture (37 percent of all employed women, against 33 percent of all employed men) and in services (47 percent of all employed women, against 40 percent of all employed men). The opposite is true for manufacturing.³⁴ Women also are overrepresented among unpaid and wage workers and in the informal sector. Women account for about 40 percent of the total global workforce, but 58 percent of all unpaid work, 44 percent of wage employment, and 50 percent of informal employment (figure 5.2).³⁵

These differences are also pervasive when comparing men and women within sectors—female and male farmers and entrepreneurs, and female and male wage workers. Women are more likely than men to own and operate smaller farms and to cultivate subsistence crops. Land holdings among female-headed households in rural areas are smaller than those of male-headed households in 15 of 16 countries analyzed, with average differences equal to or larger than 1.5 hectares (or 50 percent of the average plot size) in 6 countries.³⁶ In addition, men manage most of the commercial crops, although not without women's (often unpaid) contributions. And while women participate in commercial farming, they do so within a rather rigid division of tasks.

Similarly, the large majority of micro, small, and medium enterprises are run by women, and the percentage of female ownership de-

“Garment companies hardly recruit men because the job needs sewing.”

Young woman, urban Indonesia

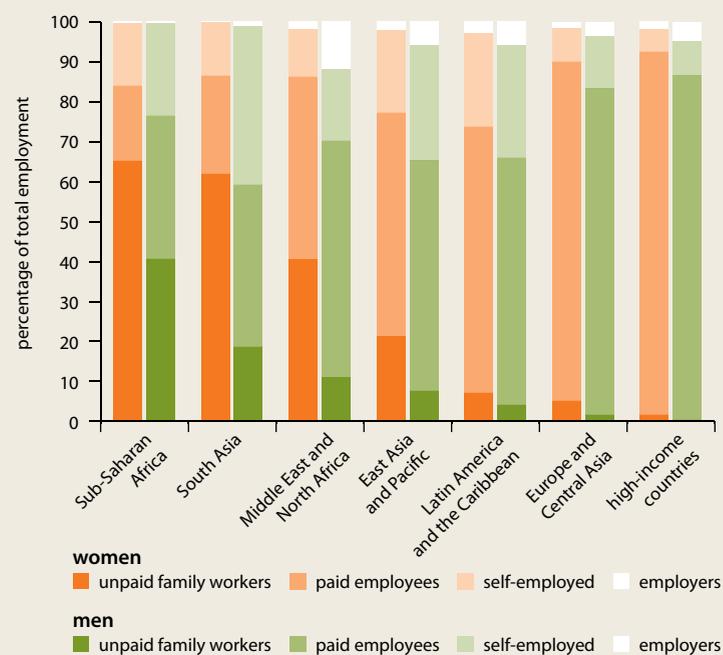
clines with firm size.³⁷ This decline becomes even sharper when using more restrictive definitions of ownership that account for actual decision power in the presence of multiple owners.³⁸ In addition, female-headed enterprises are more likely than male-headed enterprises to be home-based and operate within the household.³⁹ In Mexico, 30 percent of all female-headed businesses operate from home, compared with only 11 percent of male-operated businesses; the respective percentages in Bolivia are 23 and 10 percent.⁴⁰

Female entrepreneurs are also more likely than their male counterparts to be “necessity” entrepreneurs (to view entrepreneurship as a choice of last resort) and less likely to be “opportunity” entrepreneurs. In the United States, women are underrepresented among high-growth firms, where growth orientation is measured by whether the entrepreneur was pushed or pulled into entrepreneurship.⁴¹ In developing countries, women often cite the need to supplement household income as the main reason to enter entrepreneurship, whereas men cite the desire to exploit market opportunities.⁴² That said, the fraction of female “necessity” entrepreneurs declines with economic development, as more economic opportunities open for women.⁴³

As noted, women and men work in different industries and occupations. Globally, women represent more than 50 percent of employment in communal services (public administration, education, health, and other social services) and among professionals (including teachers and nurses), clerical workers, and sales and service employees. They also represent more than 40 percent of employment—equivalent to the female share of total employment—in the retail and restaurant sectors and among agricultural workers.⁴⁴

Industry segregation patterns are similar when looking at firms rather than workers. In both developed and developing countries, female-owned firms tend to operate in a restricted number of sectors, populated by smaller firms and characterized by low value added and low growth potential.⁴⁵ Women entrepreneurs are heavily concentrated in the service sector and in businesses that conform more to female roles (such as beauty parlors, food vending, and sewing).⁴⁶

FIGURE 5.2 *Women are overrepresented among wage and unpaid family workers*



Source: WDR 2012 team estimates based on International Labour Organization.

Note: Most recent year available for 56 countries in the period 2003–08.

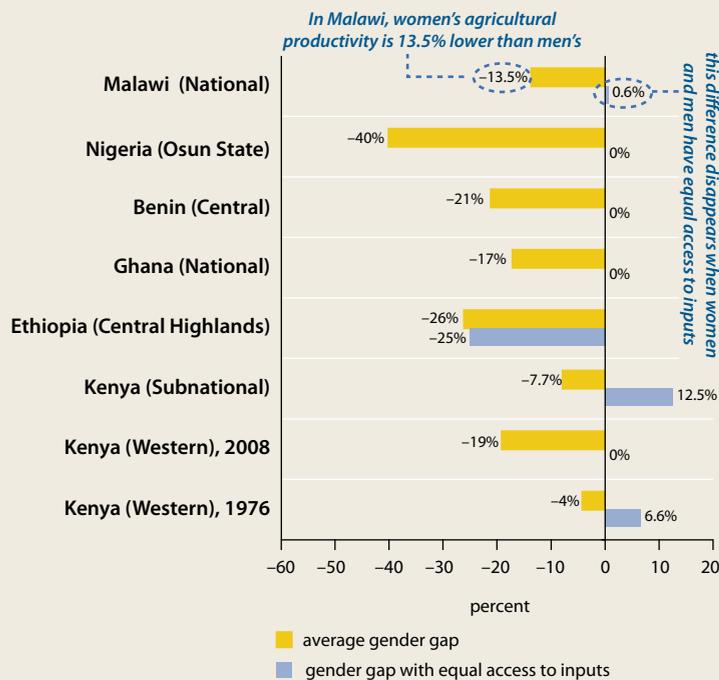
These gender differences in employment—with women more likely than men to work in sectors, industries, occupations, and jobs with lower average (labor) productivity—explain a large fraction of the gender gap in productivity and earnings.

Gender gaps in agricultural productivity diminish significantly or disappear once gender differences in the scale of operation (measured by land size and use of technical inputs) are controlled for.⁴⁷ In all but one of the examples in table 5.1, gender differences in productivity become insignificant after controlling for dif-

“Bank and teaching jobs are considered safe and respectable for women, whereas executive and engineering are considered respectable and high-paying jobs for men.”

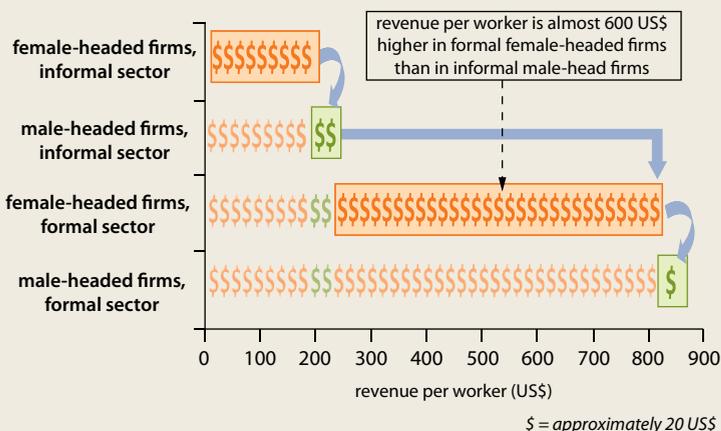
Young woman, urban Indonesia

FIGURE 5.3 Gender differences in agricultural productivity diminish considerably when access to and use of productive inputs are taken into account



Sources: Alene and others 2008; Gilbert, Sakala, and Benson 2002; Kinkingninhoun-Médagbé and others 2010; Mook 1976; Oladeebo and Fajuyigbe 2007; Saito, Mekonnen, and Spurling 1994; Tiruneh and others 2001; Vargas Hill and Vigneri 2009.

FIGURE 5.4 Differences in productivity between female and male entrepreneurs are dwarfed by differences in productivity between formal and informal entrepreneurs



Source: Hallward-Driemeier 2011b.

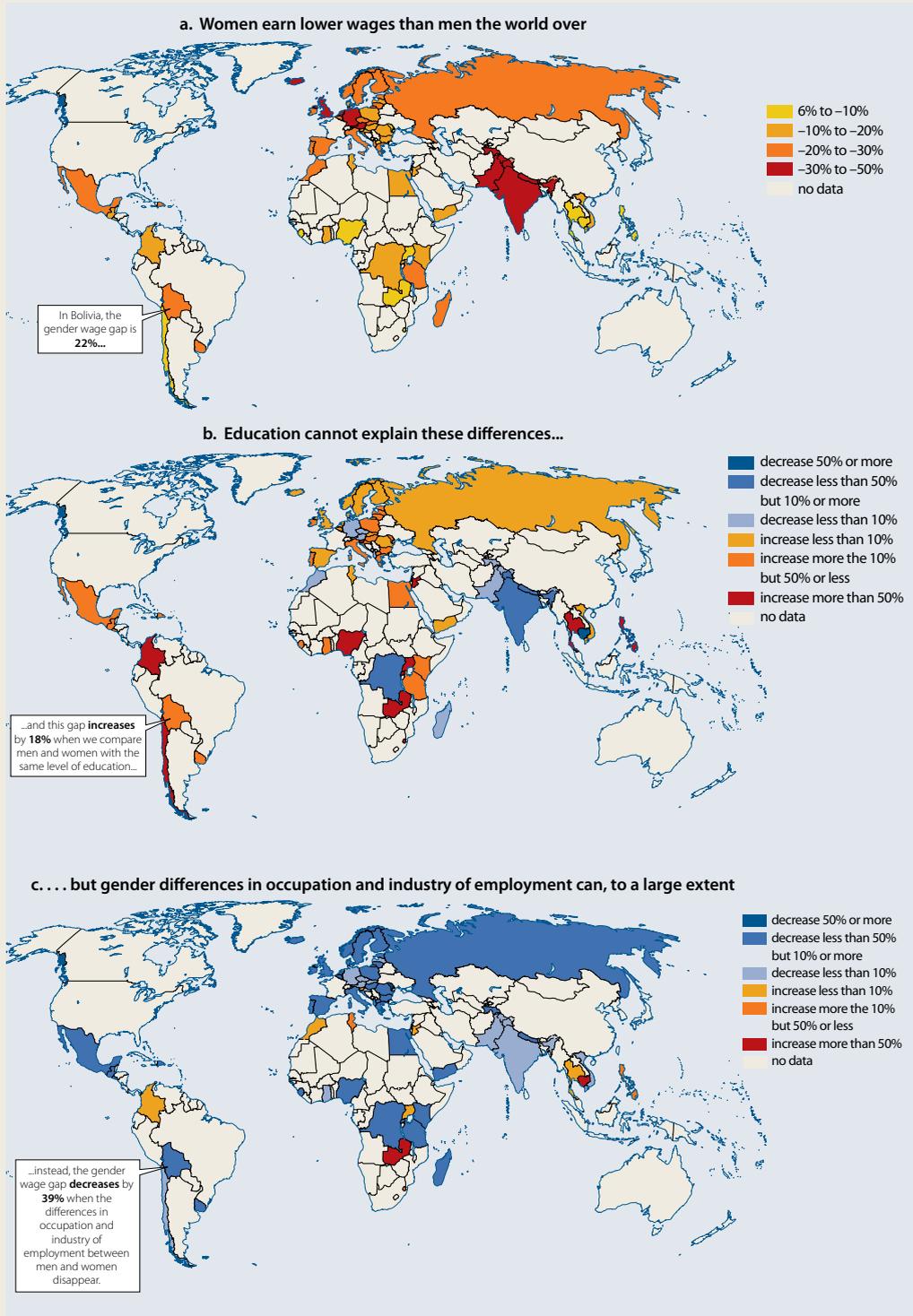
ferences in land size, access to fertilizer, degree of mechanization, and other productive inputs (figure 5.3). Evidence from intrahousehold comparisons produces similar results. Lower yields among female farmers in Burkina Faso were entirely explained by the lower labor intensity and fertilizer used in women’s plots.⁴⁸

Differences in sector of operation and size of firm contribute significantly to average productivity differences between female-headed and male-headed businesses (where productivity is measured as value added or revenue per worker). For instance, 9 percent to 14 percent of the gender earnings differential among self-employed individuals is explained by industry of operation.⁴⁹ Among formal firms in urban areas in Africa, differences in sector of operation explain more than 20 percent of the total gender productivity gap, and differences in firm size explain an additional 30 percent.⁵⁰ Impacts are similar among rural businesses in Bangladesh, Ethiopia, Indonesia, and Sri Lanka, where sector of operation and firm size explain between 30 and 90 percent of the gender productivity gap.⁵¹ Performance gaps also decline significantly after distinguishing between formal and informal businesses. Dwarfing the differences in productivity between female-headed and male-headed firms within the informal and formal sectors are the differences across the two sectors (figure 5.4).

Differences in the distribution of men and women across industries and occupations explain much of the gender wage gap. After controlling for individual characteristics (including human capital) and place of residence, gender differences in occupation and sector of employment account for 10–50 percent of the observed wage gap in 33 low- and middle-income countries (of 53) and 14 high-income countries (of 17) with data. And they account for 0–10 percent in an additional 9 low- and middle-income countries and 3 high-income countries (map 5.1). So differences in occupation and industry can account for a large part of the unexplained wage gap in more countries than differences in education.

In addition, when comparing female and male wage workers in these countries, a fairly large number are employed in jobs done only by men or only by women—in other words, a comparator male or female cannot be found for many workers. In some countries, men with

MAP 5.1 Gender differences in occupation and industry of employment account for a large fraction of the gender gap after accounting for individual characteristics



Source: WDR 2012 team estimates using data from the International Income Distribution Database (I2D2) and the European Union Statistics on Income and Living Conditions (EU-SILC).

no female comparator earn higher than average wages and women with no male comparators earn lower than average wages, a finding that supports the premise that gender differences in occupation and industry of employment lie behind the observed gender wage gap.⁵²

The focus here on productivity and earnings as the main characteristic that determines whether a job is “good” or “bad” assumes that jobs where men and women can be more productive and earn higher wages are preferable. Qualitative evidence suggests that this assumption is not far from reality, although individuals also take into account other dimensions when evaluating the desirability of a particular job (box 5.5).

The evidence discussed here suggests three things. First, gender differences in human capital contribute to gender differences in productivity and earnings, but their relative importance is diminishing as the education gap closes the world over. Second, women farmers and entrepreneurs are as efficient as their male counterparts, after accounting for gender differences in access to productive inputs. Third, although labor markets show some evidence of gender discrimination, a significant part of the observed wage gap can be explained by women and men sorting into different occupations.

So, while differences in worker characteristics (especially in human capital) and returns matter, it is primarily differences in employment that account for the gender gaps in productivity and earnings. Gender differences in employment matter both directly—women work in smaller farms and firms, as well as in industries and occupations with lower wages—and indirectly, through their impact on returns, particularly the returns to human capital. The rest of this chapter is devoted to identifying and understanding the causes of employment segregation by gender.

WHAT EXPLAINS EMPLOYMENT SEGREGATION BY GENDER? A FIRST LOOK

As countries grow richer, the productive structure of the economy changes and, with it, the number and nature of available jobs. Farm jobs give way to off-farm jobs, the share of wage and salaried employment in total employment rises, and the incidence of informality declines. And

as new economic opportunities open in different sectors, market prices and wages may change to signal where labor productivity is potentially highest and workers are needed most.

It is not clear, however, how these changes in economic activity and the structure of employment affect employment outcomes and ultimately employment segregation by gender. Higher gross domestic product (GDP) per capita and, particularly, higher service sector and wage employment encourage women’s participation in the labor market (see box 5.1). And as the number of female workers increases, women are likely to take traditionally male jobs. But other constraints may limit the impact of stronger economic incentives to female employment in male-dominated jobs (and vice versa).

The extent to which households and individuals can—or are willing to—respond to the signals triggered by economic development depends on their preferences and the ways new markets and institutional forces change incentives and constraints. Because preferences, incentives, and constraints affect women and men differently, the impact of economic development on employment segregation needs to be assessed empirically. We start by looking at the relationship between economic development, captured by GDP per capita, and employment segregation at the aggregate level, with a focus on how both the nature and the level of segregation change as countries get richer.

Is Bangladesh like Sweden?

The structure of global employment has changed as countries have become richer. Over the past three decades, employment in agriculture declined from 19.6 percent of the global labor force to 13 percent and that in manufacturing, from 31 percent to 23.5 percent—while that in services rose from 49 percent to 63.5 percent.⁵³ In addition, wage and salaried employment grew from 73 percent of total global employment to 76 percent, while self-employment fell from 17 percent to 16 percent and unpaid work from 8 percent to 6 percent. The share of entrepreneurs in total employment remained roughly constant at 2.5 percent. As a result of these changes, informal employment declined from 25 percent to 21 percent of global employment.⁵⁴ These trends are common across regions, with differences in the relative importance of different types of jobs and in the magnitude of changes.

BOX 5.5 Good jobs and bad jobs: What are they and who does them?

Women and men in 88 urban and rural communities around the developing world talked to us about good jobs and bad jobs, what they are, and who does them.

A good job is a well-paid job, as illustrated by the following quotes:

"A good job is a job with a good salary."

Young woman, urban Serbia

"Nursing is a good job because they earn lots of money."

Young woman, urban South Africa

"The best ways to make a living are to work in construction abroad, housekeeping, growing potatoes and maize, and entrepreneurship. These are considered the best jobs because they provide a higher income."

Adult man, rural Moldova

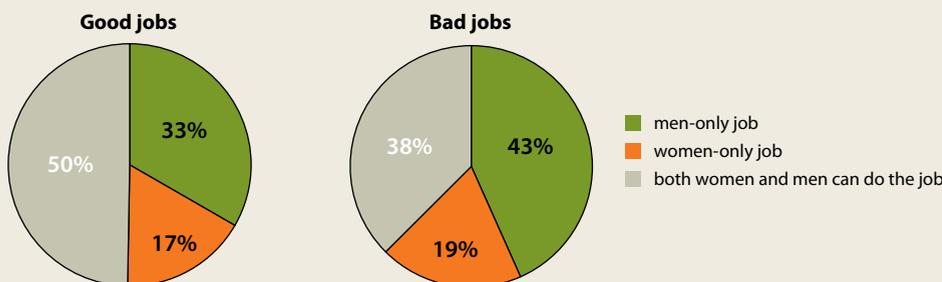
Women and men consider most jobs (60 percent of all jobs identified by the focus groups) to be good, irrespective of their age or place of residence. And even though the nature of jobs varies by country and between urban and rural areas, there are some remarkable similarities in what are considered good and bad jobs. Working as a public employee or in a high-skill job (doctors, lawyers, or judges) is generally good. In contrast, "dirty"

jobs, such as garbage collection and street cleaning, are bad.

Across all countries and communities, employment segregation by gender is significant—about 50 percent of all jobs are considered to be men's jobs or women's jobs. And of the gender-specific jobs, more are men's than women's, as the figure shows.

In most countries, whether a job is considered male, female, or neutral reflects traditional gender roles and perceptions. For example, men's jobs are usually technical (electrician, mechanic) and those that require physical strength. In many countries, high-skill jobs are also considered male jobs. In contrast, female jobs include retail and personal services, as well as domestic service. Many communities also mentioned "housewife" as a female job—even if unremunerated.

The employment segregation by gender and the share of female jobs in segregated jobs are higher for bad jobs. More than 60 percent of all bad jobs are gender-specific. And of those, 25 to 35 percent are female jobs, compared with 15 to 30 percent of gender-specific good jobs. Finally, the difference in the share of gender-specific good and bad jobs that are female jobs is driven entirely by men's perceptions—in other words, men think that the fraction of gender-specific jobs that are female is larger for bad jobs than for good ones, while women's perceptions do not vary much with the quality of the job.



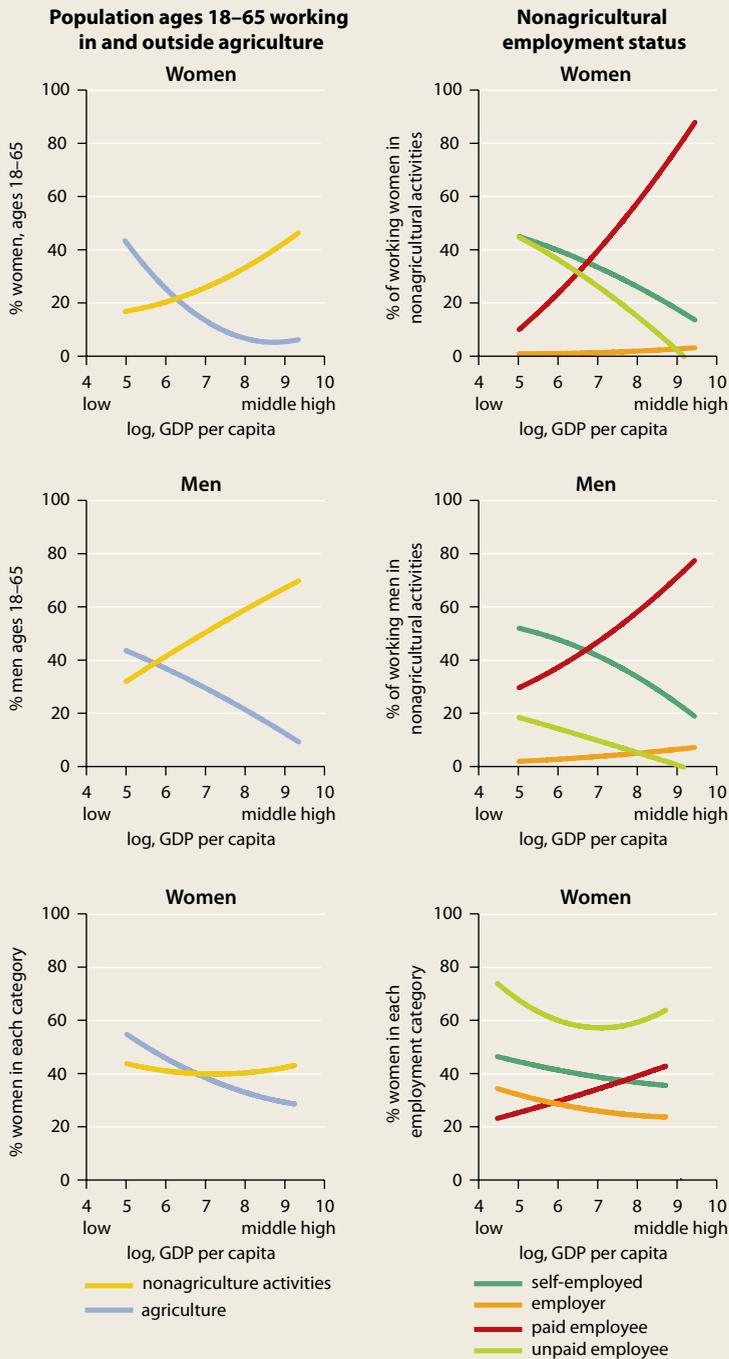
Source: WDR 2012 team calculations, based on "Defining Gender in the 21st Century: A Multi-Country Assessment" (dataset).

Note: Data from focus group discussions with men and women in 88 urban and rural communities in Afghanistan, Bhutan, Burkina Faso, Dominican Republic, Fiji, India, Indonesia, Liberia, Moldova, Papua New Guinea, Peru, Poland, Serbia, South Africa, Tanzania, Vietnam, West Bank and Gaza, and the Republic of Yemen. Focus groups were conducted separately for adult men, adult women, young men, and young women. Data present averages.

Changes in the structure of employment brought about by economic development do not, however, necessarily eliminate or weaken labor market segregation. So employment segregation in Bangladesh looks very similar to that in Sweden, despite their very different incomes.

Using data for 100 developing countries between 1993 and 2009, we estimate aggregate shares of agricultural and nonagricultural employment, as well as shares of unpaid and paid wage employment and entrepreneurship—the latter divided into self-employment and work as an

FIGURE 5.5 *Economic development is positively correlated with the share of female workers in wage employment and negatively correlated with the share of women in unpaid work, self-employment, and entrepreneurship*



employer—as a function of GDP per capita. We do this for male and female workers separately and also calculate the share of female workers in each employment category.

Both men and women tend to move out of agriculture and into nonagricultural activities as countries grow richer (figure 5.5). For nonagricultural employment, the shares of paid employment and, to lesser extent, employers grow with economic development. These patterns are common to men and women, but gender differences in the incidence of unpaid work and self-employment at low levels of development suggest that women are more likely to transition from unpaid to wage work and that men are more likely to transition from self-employment to wage employment.

Combined, these trends suggest that economic development—rather than eliminating gender segregation by employment status—changes the nature of such segregation. Moving from low to medium per capita GDPs is positively correlated with the share of female workers in wage employment and negatively correlated with the share of women in unpaid work, self-employment, and entrepreneurship. In other words, women are overrepresented among agricultural and unpaid workers at low GDP per capita and among unpaid and wage workers at medium GDP per capita. These trends remain the same as GDP per capita increases from medium to high, with the exception of the share of women in unpaid work, which rises. Notice, however, that the overall incidence of unpaid work is very low at high GDPs per capita, for both men and women. These changes in segregation patterns are illustrated by comparing Tanzania, a low-income country, and Brazil, a middle-income country (figure 5.6).

The impact of economic development on industry and occupational segregation is even more muted. These patterns are common across countries with very different levels of economic development and aggregate sectoral distributions of employment. For instance, the share of female wage employment across the nine main sectors of economic activity is remarkably similar in Bangladesh, Mexico, and Sweden, with the most noticeable differences pertaining to communal services and retail and restaurants, where the presence of females is significantly lower in Bangladesh. The same is true for female employment shares in the eight

Source: WDR 2012 team estimates based on the International Income Distribution Database (I2D2).
 Note: Data from 100 developing countries. Most recent years available between 1996 and 2008.

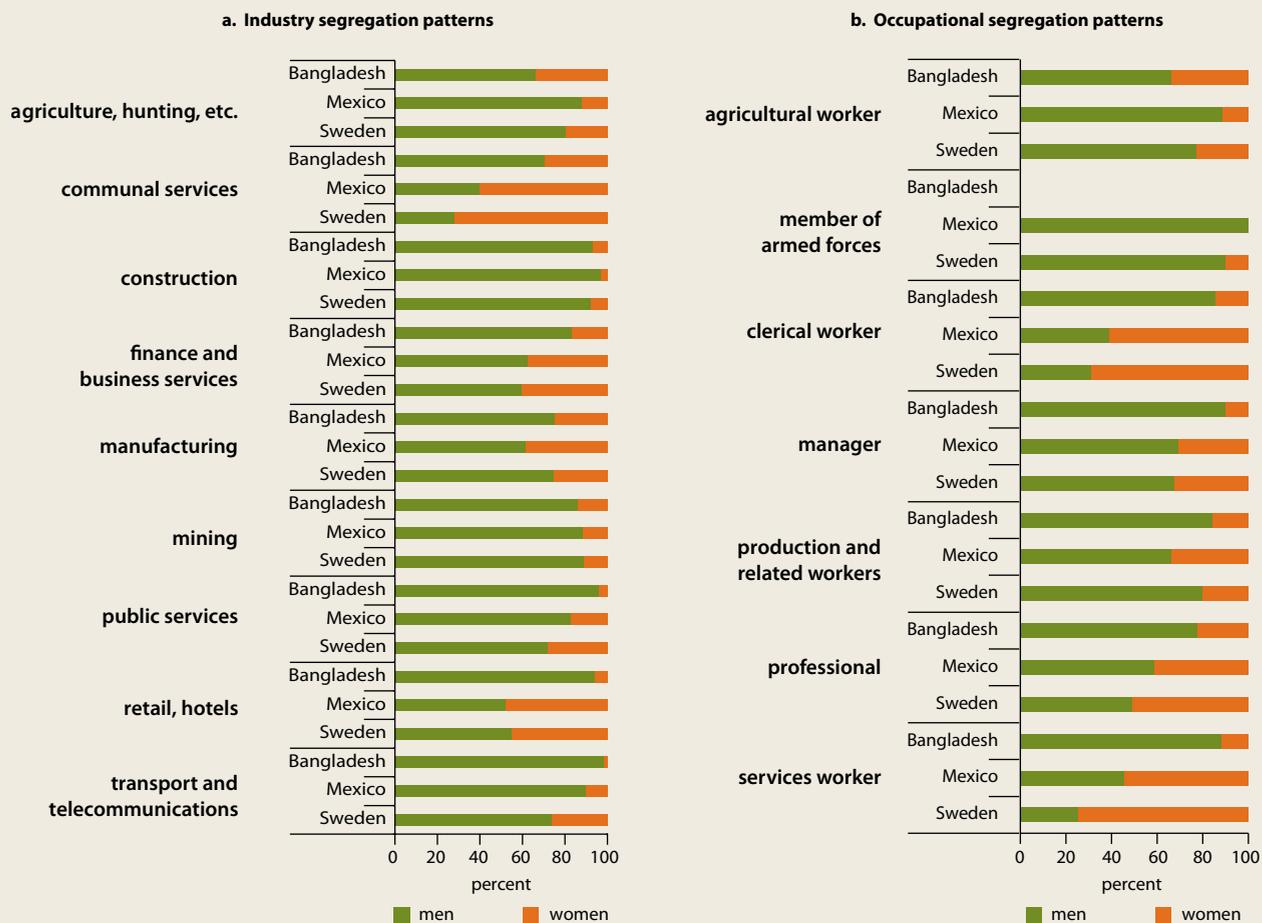
FIGURE 5.6 Tanzania and Brazil illustrate how employment patterns by gender change with economic growth



Source: WDR 2012 team estimates based on the International Income Distribution Database (I2D2): Tanzania 2006 and Brazil 2005.

Note: GDP per capita in 2009, at constant 2000 US\$.

FIGURE 5.7 Industry and occupational segregation patterns are common across countries with very different levels of economic development and aggregate sectoral distributions of employment



Source: International Labour Organization (Bangladesh 2005, Mexico 2008, Sweden 2008).

main occupational groupings, with the largest differences among clerical and service workers (figure 5.7). Others have presented similar evidence using information for different sets of countries.⁵⁵

Higher incomes do not always translate into less industry or occupation segregation, either in cross-sectional comparisons or over time. As chapter 2 discussed, there is little or no relationship between GDP per capita and standard measures of (horizontal) segregation despite significant cross-country differences in industry and occupational segregation. In fact, some authors have argued that economic development may add to industry and occupational segregation. The factors responsible for the overall integra-

tion of women in paid employment (a growing service sector and increased employment opportunities in the wage sector) may also be responsible for the institutionalization of gender in the labor market through the feminization of some sectors and occupations.⁵⁶

As the service sector grows, many “female” tasks, such as child care and food service, are incorporated in the market economy. The affinity of many of these new service sector jobs to women’s traditional domestic roles may broaden the gender division of labor into the sectoral and occupational spheres. Similarly, the presence of a large wage sector increases the possibilities for sectoral and occupational distinctions. As a result, gender differences in skills, family obli-

gations, and preferences, as well as engendered cultural norms, are more likely to manifest in sectoral and occupational divisions than they do in simpler economies, where gender stratification is usually along the home-or-market axis.⁵⁷ This argument is consistent with evidence of higher segregation in high-income countries and among wage workers.⁵⁸

If not economic development, then what?

Gender segregation in employment that is persistent (over time) and consistent (across countries) points toward structural causes rooted in economic and institutional systems, both formal and informal—with much commonality across countries at different levels of development and in different social settings.

We argue that three factors—gender differences in time use patterns, in access to productive inputs, and in the impacts of market and institutional failures—condition women’s and men’s decisions for participation in market work and the choice of a particular economic activity or job.

Gender differences in education trajectories also segregate employment, particularly in countries with a significant fraction of tertiary-educated men and women (see chapter 3 and box 5.6).

Markets and institutions shape household decisions about allocating time and other productive resources and, in so doing, determine gender employment outcomes and their response to economic development. Where markets and institutions are aligned to provide consistent signals for change, households respond to these signals, and there is more progress in reducing gender inequalities. For instance, women are more likely to respond to an increase in economic opportunities and higher wages brought about by trade openness when child-care services are available or when women’s participation in market work is not frowned on socially. In contrast, where significant barriers remain, signals are more muted or even contradictory, and advances are more limited.

But the impact of markets and institutions is not limited to their effect on incentives and constraints for individuals and households. Instead, markets and institutions, particularly market and institutional failures, also impinge on *inter-*

actions between individuals and households in the economic sphere—be it as consumers and producers or as employees and employers—in ways that produce, intentionally and unintentionally, gender-differentiated outcomes. For example, female farmers may have more difficulty than male farmers in accessing markets if prices and other relevant information are communicated and shared through networks that include few women.

Our framework captures these effects by highlighting that gender differences in access to economic opportunities, and the resulting segregation in employment, are the product of households, markets, and institutions and their interactions. Not only can constraints or barriers in any one of these spheres block progress toward higher access and less segregation, but constraints and barriers in different spheres are mutually reinforcing (figure 5.8). We elaborate on these ideas by examining the roles of households, markets, and institutions in determining time use patterns and access to productive inputs, reviewing evidence on potential constraints and highlighting areas for policy action. A more detailed policy discussion is in part 3 of the Report.

GENDER, TIME USE, AND EMPLOYMENT SEGREGATION

Time is a resource. It can be devoted to productive activities, including market work, other (unpaid) work within the household, and child care, or it can be invested in personal activities (such as eating and sleeping) and leisure.⁵⁹ This section focuses on the relationship between gender differences in time use and employment segregation by gender. The impact of time use patterns on a variety of other (gender) outcomes and, more broadly, on individual and household welfare is discussed in other chapters.

Two basic ideas about time and its use shape this discussion on time allocation within the household. The first is that households need to allocate a minimum amount of time to “survival-related” personal activities, such as cooking, sleeping, fetching water, or ensuring a minimum amount of consumption. Only after these tasks are taken care of can time be devoted to other activities (discretionary time).⁶⁰

BOX 5.6 *The seeds of segregation are planted early—How gender differences in education trajectories shape employment segregation*

The education gap is closing, yet significant gaps remain as women and men continue to acquire very different types of skills both as part of their formal education and once in the labor market (see chapter 3). Limited evidence suggests that gender differences in education trajectories translate into gender differences in employment and ultimately into differences in productivity and earnings.^a

In developing countries, where only a limited number of people have a college education, it is primarily the level of education—and within tertiary education, the type of degree—that can have a large impact in employment outcomes. In Indonesia, a general secondary education and high academic ability increase the probability of completing college for both men and women, but impact on labor market outcomes varies with gender. A college degree substantially increases the probability of employment for both men and women, independent of whether it is a diploma or a BA. But for women, it is basically the entry point to a wage job in the public sector, while for men it appears to open a wider spectrum of employment possibilities.^b

In developed countries, where levels of education and tertiary enrolment rates are high for both men and women, gender differences in the field of study become more important in determining labor market outcomes. With women and men concentrating in different fields of study, these patterns immediately translate into occupational differences by gender. For example, information on tertiary graduates in 14 developed economies

shows that 6 percent of males occupy senior managerial positions, but only 3.8 percent of females. In contrast, 11 percent of women are employed in clerical positions, but only 7 percent of men.^c

Occupational segregation persists even when comparing men and women with the same field of study, suggesting that gender differences in education trajectories are only part of the story. Of those with a science degree, 55 percent of men but only 33 percent of women are in occupations related to physics, mathematics, and engineering. In contrast, 22 percent of women but only 13 percent of men with these degrees become teachers. Similar differences are found for other fields of study.^d

Gender differences in innate ability or academic performance cannot explain access to tertiary education and selection into different education trajectories. But gender differences in the intensity of ability sorting and in preferences for the field of study can. After controlling for relevant individual characteristics, the top male academic performers in developed economies were 10 percent more likely to choose a male-dominated field than other males, while the impact of tests scores on choice was insignificant among top female performers and for female-dominated and neutral fields. Moreover, choosing a demanding or prestigious field of study significantly increases the probability of enrolling in a male-dominated field for men but not for women, and it reduces the probability of enrolling in a female-dominated field for both.^e

a. Clifford 1996; Goldin and Katz 2008; Morris and others 2006; Stevenson 1986; as well as new work commissioned for this Report: Flabbi 2011; Giles and Kartaadipoetra 2011.

b. Giles and Kartaadipoetra 2011; World Bank 2010b.

c. Flabbi 2011.

d. Ibid.

e. Ibid.

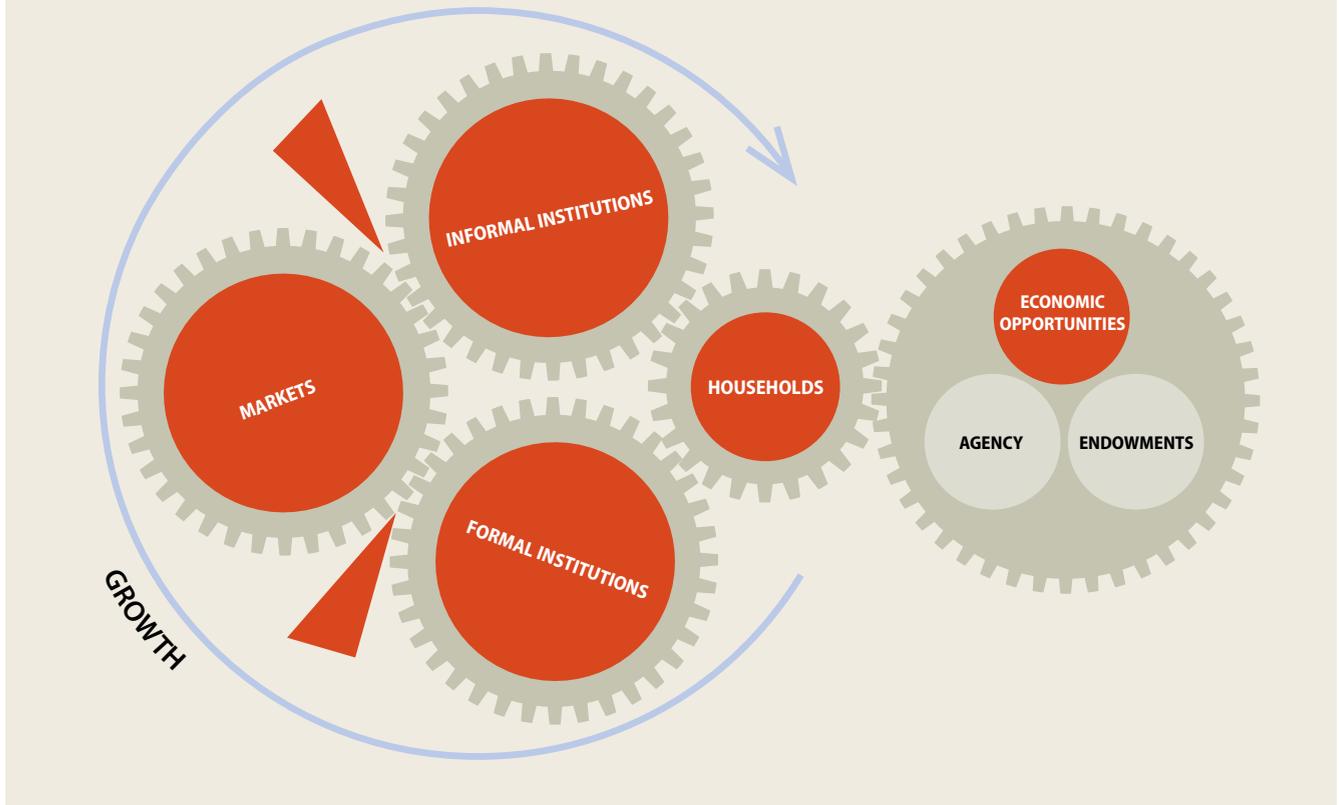
Gender differences in discretionary time translate into differences in the capacity of women and men to engage in all nonsurvival activities, including such market-oriented activities as wage employment.

The second idea is that time can complement other production inputs, so some activities may require a minimum of time to be sufficiently productive. For example, market-oriented production of agricultural products may be profitable only if enough time is available to travel back and forth between home and the market place. Similarly, (formal) wage employment

may require a fixed schedule as well as a minimum amount of daily or weekly hours to be committed to a particular activity. In this sense, both the availability of discretionary time and its amount and predictability may affect the capacity of different individuals to take on specific types of activities.

The discussion focuses on gender differences in time allocated to three main categories of productive activities: housework, care (of both children and elderly), and market or paid work. Housework includes reproductive activities for which substitute markets could

FIGURE 5.8 Access to economic opportunities and the resulting segregation in employment are the product of households, markets, and institutions, and their interactions



Source: WDR 2012 team.

potentially exist (cooking, fetching water), while market work includes paid and unpaid work devoted to the production of goods sold in the market. Information on a fourth category (survival-related and personal activities, including eating and drinking, personal care, sleep, education, leisure, and participation in community and social activities) is available in the data. But given that no significant gender or cross-country differences exist in time allocations to these activities, we exclude them from the discussion (box 5.7).

First comes love, then comes marriage, then comes baby sitting in a carriage

Significant and systematic gender differences in time use can be characterized by three stylized facts. First, women work more than men once all productive (housework, care, and market) activities are taken into account.⁶¹ This con-

clusion is corroborated by data from country studies.⁶²

Second, women bear the brunt of housework and care while men are mostly responsible for market work, although the degree of specialization varies across countries. In all developed and developing countries in the sample, women devote more time than men to housework and child care, with differences ranging from about 50 percent more in Cambodia and Sweden to about three times more in Italy and six times more in Iraq.⁶³ But in no country do women invest as many hours as men in market work.⁶⁴ In Sweden, women spend about 70 percent of the time men spend on market activities, while in Pakistan this proportion is around one-eighth (figure 5.9). Similar patterns have been documented by others for other middle- and low-income countries, as well as for the United States.⁶⁵

BOX 5.7 *Overview of data used in analyzing gender differences in time use patterns*

Time use data provide a detailed account of the time devoted to different activities and tasks during a particular period of time—usually a day (24 hours) or a week. Collecting such information requires individuals to record the time devoted to a large number of activities during the period covered by the survey. The number and nature of activities and the instruments for recording the information vary across countries and surveys, so cross-country comparisons often require some standardization.

This Report uses data from 23 countries collected between 1998 and 2009. Information for 11 countries comes from the Multinational Time Use Study (MTUS). To this are added data for 12 more countries (primarily developing) to ensure adequate regional coverage. These data come from country-level surveys and have been standardized to make them comparable with those from the MTUS. Activities have been grouped into four aggregate categories (housework; care of children, the sick, and the elderly; market work; and survival-related or personal activities), and time allocations have been expressed in hours per day. Data refer to individuals ages 15 and older, with information in some countries restricted to ages 18–65.

Most surveys also provide data on individual and household characteristics, although the same characteristics are not included in all surveys (Berniell and Sanchez-Páramo provide information on the main variables used for the analysis and their availability). For instance, information on household income is available only in 18 of the 23 countries. Where required information is missing, the sample is restricted to only those countries with available data. In addition, in 6 countries time use information is available only for one person per household, so the analysis could only be performed at the individual level.

Finally, aggregate time use data are also available for Argentina, Armenia, Australia, Austria, Belgium, Bulgaria, Estonia, Finland, India, Israel, Japan, Lithuania, Poland, Sweden, Turkey, and West Bank and Gaza. This information is combined with that from the household surveys when providing country averages and performing aggregate country comparisons.

Source: Berniell and Sánchez-Páramo 2011b.

Third, gender differences in time use patterns are primarily driven by family formation. Marriage significantly increases the time devoted to housework for women but not for men. In most countries, married women spend at least one hour a day, or 30 percent, more on housework than their single counterparts, after controlling for relevant individual and household characteristics. Similarly, the presence of children, particularly small children, significantly increases the amount of care by both men and women, but more for women. The presence of children under 5 years of age is associated with an additional 1.0–2.8 hours of care a day depending on the country, while the presence of older children (5–17) increases care by an additional 0.1–1.0 hours a day. Equivalent changes for men range from 0.1 to 1.0 hour a day for small children and from 0 to 0.5 hours a day for older children. As a reference, single women spend an average of 30

minutes a day, and single men 6 minutes a day, in care activities.⁶⁶

Smaller but significant differences among the well-off and educated

For couples, female and male time use converges as income and education increase, although overall differences persist even among the well-off and educated. Average gender differences in hours devoted to housework decline as couples get richer and more educated, but half to two-thirds of the difference remains unexplained, depending on the country.⁶⁷

Convergence implies different things across activities and for men and women. Convergence in housework and, in most cases, care work is driven primarily by a decline in hours devoted to these tasks by women, rather than an increase in hours among men. In addition, the convergence is stronger for market work than for housework and care work (figure 5.10). Even when women contribute a substantial fraction of total market work (horizontal axis), they continue to be largely responsible for housework and care work (vertical axis). And although men's contribution to housework and care work is generally larger in France than in Ghana (increasing with income), for most couples in both countries, women contribute more than 40 percent of the time devoted to these activities (more than 50 percent for care) irrespective of their employment status.⁶⁸

And, in the end, gender trumps money. For instance, women in the United States reduce their housework as their relative contribution to total household income increases, to the point where both spouses contribute equally, and increase it again afterward.⁶⁹ In other words, couples that deviate from the normative income standard (men make more money than women) seem to compensate with a more traditional division of housework. Perhaps it is more acceptable for women to adopt masculine behavior, such as working for pay, than it is for men to adopt feminine behavior, such as doing housework and care work.⁷⁰ So, allocating more time to market work generally comes at the price of higher total workloads for women.⁷¹

Interestingly, qualitative information from focus groups interviews with men and women confirms that gender roles for care, housework, and main earner responsibilities are deeply entrenched around the world. When asked about what they and their partners do during the

day, women accurately report that men are mainly working outside the home and men accurately report that women are mainly devoted to care and housework. In contrast, both groups have relatively distorted views about less traditional activities undertaken by the opposite sex (box 5.8).

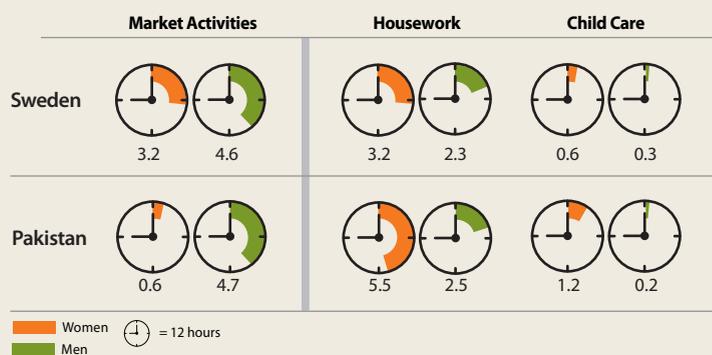
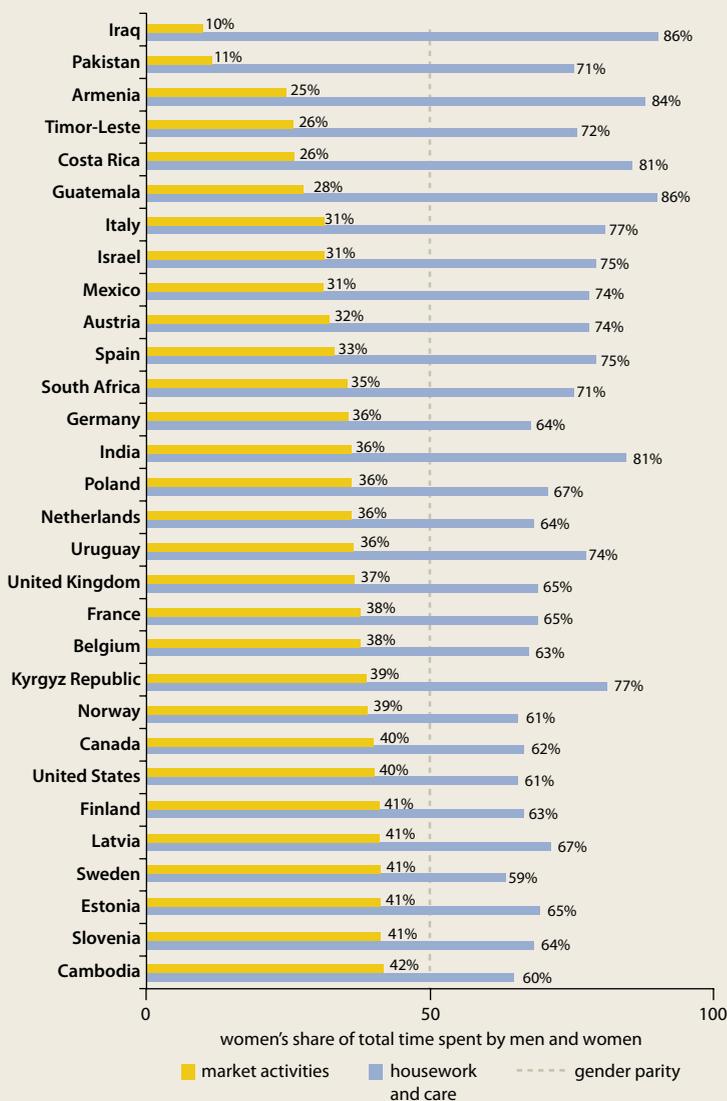
What happens in the home does not stay in the home

Gender differences in time use imply that women face important fixed costs associated with market work and thus are more likely to value flexible work arrangements and to supply fewer hours of market work than men. High fixed costs of market work result from fixed schedules and minimum hour requirements, particularly in (formal) wage jobs, and the subsequent need to adjust the organization of other activities for which women are mainly responsible. They also reflect women’s limited capacity to prevent total workloads from increasing as they engage more in market work.

Indeed, women working as paid wage employees face higher adjustment costs in the changes required in time allocated to housework than women employed as unpaid workers or self-employed. Men do not. Moreover, husbands’ time in housework is significantly higher when their wives are employed as paid wage workers than when they are unpaid workers or self-employed. So, larger intrahousehold adjustments in time allocations are needed for women to take on paid wage employment.⁷²

For women looking to do market work, the need to continue to attend to housework and care work often implies that jobs offering flexibility or allowing for easy entry into and exit from the labor market are particularly attractive. These choices are sometimes associated with a potential risk of channeling women into lower-quality jobs and weakening their labor market attachment.

FIGURE 5.9 *Women bear the brunt of housework and care while men are mostly responsible for market work*

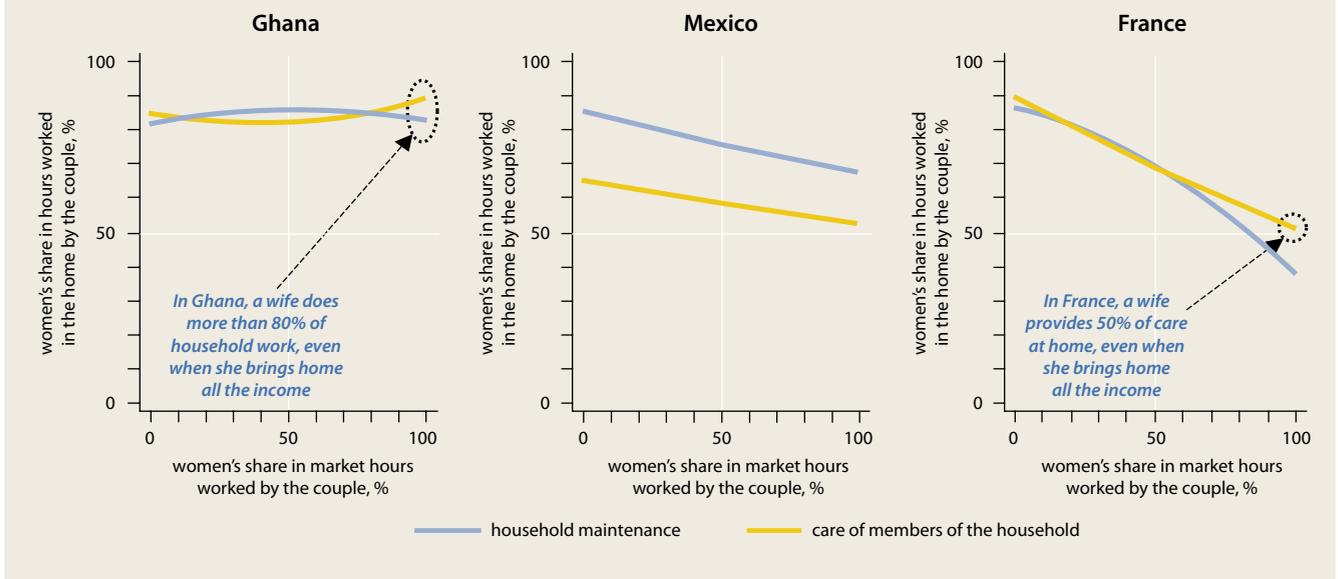


“Breeding [and] growing fruits, vegetables, and cereals are the best ways to make a living because we can do it not far from our home and still earn some money.”

Young woman, rural Moldova

Source: WDR 2012 team estimates based on time use surveys.

FIGURE 5.10 *Convergence in gender time use patterns is stronger for market work than for housework and care work*



Source: WDR 2012 team estimates based on France time use survey 1998, Ghana LSMS 2005, and Mexico time use survey 2009.

In high-income countries, flexible work arrangements are normally equated with part-time formal employment. In Austria, Germany, Switzerland, and the United Kingdom, the percentage of women who work part time because of family responsibilities is quite high, above 40 percent.⁷³ Yet while part-time work might allow women to combine employment with care, it could also trap them in lower-quality jobs.⁷⁴ Evidence from Europe and the United States shows that, even if having children causes women to take part-time work temporarily, part-time experiences often reduce the probability of full-time employment because only a few women can use part time as a bridge back into full employment.⁷⁵ In addition, in most developed countries temporary part-time work is penalized, with women who move back into full-time work receiving lower hourly wage rates for similar work and lower long-term wage growth, although the size of these penalties varies widely across countries.⁷⁶

Career interruptions to care for young children are a second way women have tried to make their roles as wage earners and mothers compatible. As discussed earlier, these interruptions result in less actual experience among women and ultimately lead to lower wages and wage growth, even after these women return to work.⁷⁷ This “mommy-trap” makes it clear that women’s

dual role as workers and mothers places them on a career path different from men’s.

In developing countries, where formal wage employment is a smaller fraction of total employment, flexibility generally takes other forms—particularly, self-employment and informality. In eight countries with information on employment status, women with heavier housework loads are more likely to be employed under more flexible working arrangements, self-employment and unpaid family employment. The same is true for care work. In some countries, men exhibit similar behaviors, but the results are more mixed.⁷⁸

Gender differences in time use and care can also translate into differences in labor market transitions and labor market attachments for men and women. In Argentina, Brazil, Ghana, Mexico, Serbia, and Thailand, women spend substantially longer out of the labor force, transition less often into formal employment, and are more likely to move between inactivity and informal self-employment.⁷⁹ These gender differences are caused largely by household formation. Marrying and having children is generally associated with less formal employment and more self-employment. In contrast, single women (including those with children) are far more similar to men in transitions, and those

BOX 5.8 What did you do all day? Perceptions on time use patterns of the opposite sex

Young women and men in 18 developing countries were asked to report on their own time use patterns and those of the opposite sex as part of the Report's Gender Qualitative Assessment.

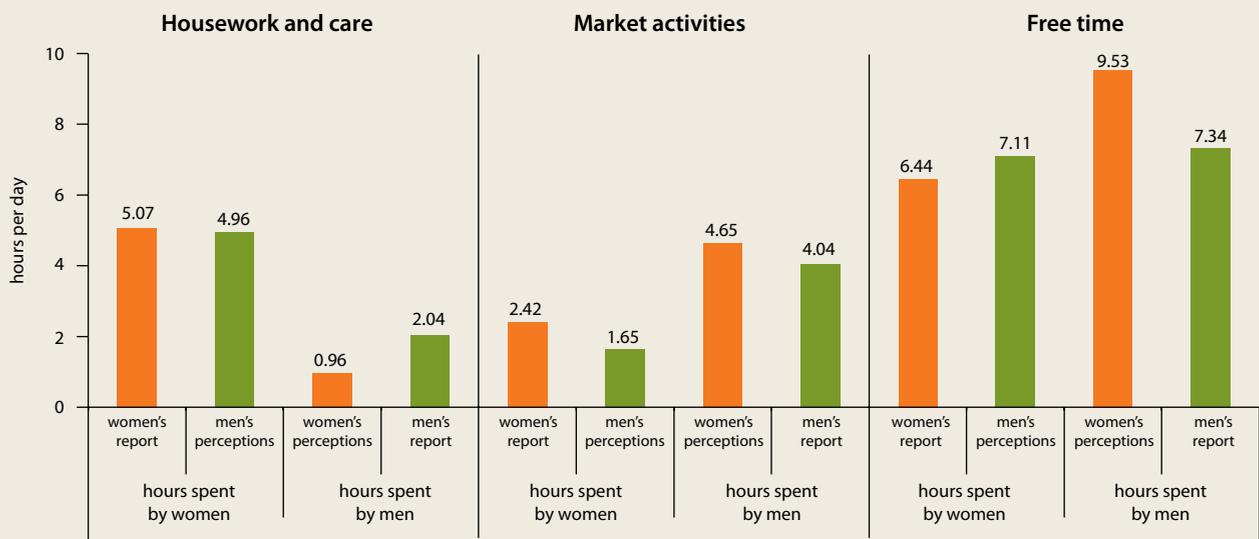
In all 18 countries, both groups reported that women do the bulk of care and housework, while men devote more time to market work. When all work activities are combined, women bear heavier burdens than men. This is consistent with the time use survey data.

But agreement in reporting stops there. When asked about the opposite sex, women significantly underestimate the time that men devote to "female" activities (care and housework)—on average, women thought men spend 0.96 hours a day on these activities,

compared with men's report of 2.04 hours a day, a 113 percent difference. And men significantly underestimate the time that women devote to "male" activities—on average, men thought women devote 1.65 hours a day to market work, compared with women's report of 2.24 hours a day, a 47 percent difference. Both groups also tend to overestimate how much leisure the opposite gender enjoys, with differences being higher for men's leisure (box figure 5.8.1).

These differences in perceptions are observed in both urban and rural areas and across most countries, although the magnitude of the difference between self-reports and perceptions by the opposite sex vary across countries.

BOX FIGURE 5.8.1 Underestimating the amounts of time the opposite sex spends on nontraditional male/female activities and leisure



Source: WDR 2012 team calculations, based on "Defining Gender in the 21st Century: A Multi-Country Assessment" (dataset).

Note: Focus groups were conducted in Afghanistan, Bhutan, Burkina Faso, Dominican Republic, Fiji, India, Indonesia, Liberia, Moldova, Papua New Guinea, Peru, Poland, Serbia, South Africa, Tanzania, Vietnam, West Bank and Gaza, and the Republic of Yemen.

without children are generally overrepresented in the formal sector (figure 5.11).

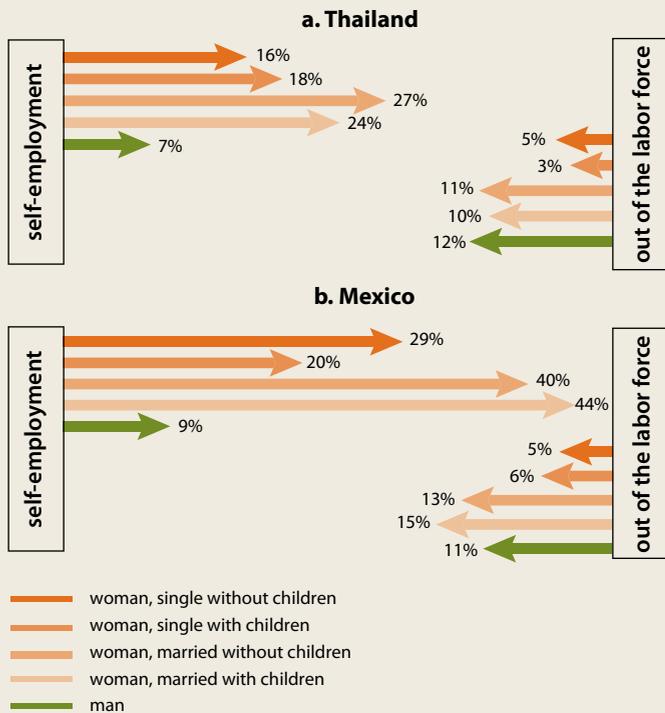
Even when women have time available, their decision (and possibly capacity) to allocate it to market work is in many cases subject to the labor needs of (family) businesses run by their husbands or other household members. In Indonesia, women whose husbands are self-employed are significantly more likely to be unpaid workers than those whose husbands are wage employees.⁸⁰ To the extent that unpaid workers in a family business are less likely to receive an autonomous income, they could have less control over household resources and ultimately less agency (see chapter 4).

Finally, women's weaker labor market attachment and less control over resources over their working lifetime translates into greater economic insecurity, less economic independence, and lower access to pensions and other safety nets (see box 4.1 in chapter 4).

Lifting time constraints: Markets, formal institutions, and social norms and preferences

Gender differences in time use for a couple or household result from differences in men's and women's productivity in house, care, and market work and in their ability to substitute market inputs for home time. Factors that increase

FIGURE 5.11 *In Mexico and Thailand, married women are more likely to move between inactivity and informal self-employment than men and single women*



Source: Bosch and Maloney 2010.

women's productivity in home production or in the paid sector, or that decrease their transition costs to market work, are likely to lead to a reallocation of their time to market work, away from other activities. At the same time, the extent to which women are able and willing to reassign time to market activities is a function of existing institutional constraints, such as the availability of flexible (formal) working arrangements, social norms regarding women's role as economic agents, and individual preferences.

Time and markets: The impacts of returns to market work and of child care

Women's capacity to respond to stronger economic incentives to participate in different market-oriented activities depends on labor markets. When labor markets function well, household labor needs can be met through

hiring labor rather than reorganizing household resources. For instance, a rural household in need of extra hands during the harvest can hire additional laborers in the local labor market, while other household members continue to work in the family business or a wage sector job where their productivity and earnings may be higher.⁸¹ The opposite is true when households cannot hire sufficient labor in the market. Nonfarm rural family enterprises in Bangladesh, Ethiopia, and Indonesia depend highly on the household's labor supply, so decisions for the allocation of labor of various household members depend on the enterprise's demand for such labor.⁸²

Women's responses will also depend on their ability to reduce the time devoted to housework and particularly care—either by contracting those responsibilities out through markets or reassigning responsibilities in the household.

Access to (subsidized) child (and elderly) care is associated with increases in the number of hours worked and, in developing countries, participation in formal employment among female workers, suggesting that better access to formal child care affords women greater flexibility and potentially allows them to seek employment in the formal sector.⁸³ But where care options are not available, the opposite is true. In Botswana, Guatemala, Mexico, and Vietnam, the lack of child care pushes mothers from formal into informal employment.⁸⁴

Take-up rates of child- (and elderly-) care services can be muted, however, when prices are high. For instance, high child-care costs are a disincentive to work in the United States, particularly among less educated women, and in Guatemala.⁸⁵

Affordable child care is especially important in poor countries and among poor households, where, in the absence of such services, women are likely to take their children to work or to leave them in the care of other household members. In Pakistan, Peru, and 10 African countries, 40 percent of working mothers take their children to work. Or older siblings, particularly older girls, act as caretakers when mothers work outside the home.⁸⁶

Time and formal institutions: Basic service delivery and flexible working arrangements

Institutions can also affect time use by changing the relative productivity of men and women in

unpaid and paid work and by reducing transaction costs associated with market work.

In the 20th century, electrification and running water in developed countries enabled families to produce housework at lower cost.⁸⁷ But higher productivity in the home had only a muted impact on time use and thus on women's supply of market work.⁸⁸ Rather than reduce the time devoted to housework, the time-saving innovations changed the composition of that work, with less time spent on preparing food and more on shopping and managing family tasks.⁸⁹ And while increases in female participation in market work in the second half of the century were related to higher appliance ownership,⁹⁰ the decline in women's housework was offset by a rise in housework by other household members—so the total time devoted to housework increased slightly.⁹¹

The overall impact of water and electricity on women's time allocation to market work in developing countries is also unclear. For water, the number of studies is small, and results appear to depend on the specific intervention and context.⁹² More conclusive evidence is available for the impact of access to electricity on time spent in market work, perhaps because electricity can reduce the time allocated to housework and complement market-oriented activities.⁹³

In contrast, investments in transportation can increase women's access to economic opportunities by reducing travel time and increasing mobility (see chapter 4).⁹⁴ Given their multiple responsibilities, women often choose jobs on the basis of distance and ease of travel, choices that tie them to local work options. These limitations are particularly severe for poor women, who often reside in more marginal neighborhoods where most available jobs are informal and low in productivity.

Investments in transport can thus have large payoffs. In rural Peru, 77 percent of surveyed women reported that the availability of rehabilitated roads and tracks enabled them to travel farther, 67 percent reported that they could travel more safely, and 43 percent reported that they could obtain more income.⁹⁵ In Bangladesh, better rural roads led to a 49 percent increase in male labor supply and a 51 percent increase in female labor supply.⁹⁶

Making part-time work possible is one institutional change that can reduce the transaction costs of market work to women, increas-

ing their productivity in the market sector and raising their time allocation to paid work. Yet in many countries, part-time work is not legally recognized. And even in countries where it is available, the vast majority of job openings in the formal sector are in full-time positions. Because women tend to be disproportionately responsible for housework, and thus have less time for other activities, the limited or nonavailability of reduced-hour employment diminishes their ability to participate in the formal sector and increases the probability that they work in the informal sector. Evidence regarding the impact of the greater availability of day care on employment outcomes supports this link between the availability of part-time work and female participation in formal employment.

In developed countries, there is a strong relationship between household formation and part-time work.⁹⁷ In the United Kingdom, single women without children are 6 percent more likely than single men without children to hold a part-time job, but the likelihood rises to 24 percent for those married without children and to 50 percent for those married with small children. In developing countries, the evidence is more limited, primarily because of the high incidence of informal employment. But for multinational corporations in India and South Africa, employee demand for flexible work schedules is high, comparable to that in Spain, the United Kingdom, and the United States.⁹⁸ Less clear is whether and how companies respond to this demand.

In Argentina, both female labor force participation and employment in the formal sector increased with part-time contracts, and female formal employment grew more in sectors with more part-timers. Married women with children increased their participation in formal employment 9 percent and reduced their self-employment 7 percent, compared with married women without children. That is equivalent to a fall in female informality of about 4–5 percent.⁹⁹

That said, part-time and flexible work often do carry a penalty in lower wages, fewer promotions, and a lower probability of full-time employment after a part-time spell. So, while part-time and flexible employment should be available, part-time work should not be used in ways that reinforce existing employment segre-

gation and ultimately reinforce gender roles for care responsibilities. Companies that have increased female participation in their workforce, as well as in management and the boardroom, can offer insights on ways to avoid employment segregation (see box 8.8 in chapter 8).

Time and informal institutions: Preferences and social norms

Social norms about gender roles in the economic sphere also influence women's employment outcomes. Traditional views and values about women's participation in market work are associated with lower female employment (and higher gender wage gaps) the world over.¹⁰⁰ But the impact is mediated by the status of individuals in the family—fathers, mothers, daughters, daughters-in-law, and so on—and by household structure. In India, daughters-in-law face a higher work burden than daughters.¹⁰¹ In Mexico, time use and time allocation to market work for single mothers are similar to those for male heads.¹⁰²

Individual preferences for women's roles as wives, mothers, and economic agents also affect women's decision to allocate time to market work. In particular, traditional personal views of women's roles as mothers and caretakers, measured as the *degree of disagreement* with the statement "A working mother can establish just as warm and secure a relationship with her children as a mother who does not work," have significant and negative effects on the time allocated to paid work.¹⁰³

Preferences also affect the choice to work a reduced (part-time) schedule, although this is true mainly in rich countries. In Australia, the Netherlands, and the United Kingdom, married and partnered women in part-time work have high levels of job satisfaction, a low desire to change their working hours, and partnerships in which household production is highly gendered.¹⁰⁴ In contrast, many women in Honduras would prefer to hold a full-time job but instead work part-time because of low labor demand.¹⁰⁵

Recent studies of the intergenerational transmission of attitudes and views have found that a mother's position in the household and her ability to make her own decisions regarding economic participation play an important role in the dynamics of social norms.¹⁰⁶

Changes in norms and preferences are likely to be slow initially and to accelerate as demon-

stration effects become stronger.¹⁰⁷ Take part-time work among male employees in the Netherlands. It was dominated by women until very recently, when a few men in relatively high professional positions started experimenting with "daddy Fridays." Acceptance of this new regime was slow at first, but once an example was set, part-time rates among male workers grew rapidly to almost 25 percent. The changes were faster in companies where one or more males in managerial positions adopted this flexible schedule early on, highlighting the demonstration effects.¹⁰⁸ The question is whether these relatively organic learning processes can then be fostered or accelerated through policy interventions that generate incentives for experimentation in ways that overcome existing constraints to the allocation of time between market and nonmarket activities by men and women.

GENDER DIFFERENCES IN ACCESS TO PRODUCTIVE INPUTS AND EMPLOYMENT SEGREGATION

Productive inputs determine the scale of production, investment, and growth. Farmers depend on land, labor, water, seeds, fertilizer, pesticides, machinery, and other inputs to produce crops.¹⁰⁹ Entrepreneurs require labor and, depending on the business's size and sector of operation, capital. Access to credit is crucial for farmers and entrepreneurs. The discussion here focuses on gender differences in access to land and credit based on the belief that they determine both the access to other inputs and the scale and mode of production. It would be best to compare individual farmers and entrepreneurs, but data constraints often limit the comparisons to female-headed and male-headed households engaged in farming and to female and male entrepreneurs (box 5.9).

Gender differences in access to and use of land and credit

Female farmers and entrepreneurs have less access to land and credit than their male counterparts. Whether access to land is measured as ownership or as the ability to operate land, gender differences persist. Similarly, both the demand for and use of credit are lower among female farmers and entrepreneurs than among their male counterparts.

BOX 5.9 *Gender of the household head versus household composition: What matters most for policy?*

Asset ownership and use are often measured for the household rather than the individual. As a result, the analysis of gender differences in the access to and use of land relies mostly on comparisons of female-headed and male-headed households rather than on comparisons of individual female farmers and male farmers.

But comparisons of female- and male-headed households can exaggerate gender differences, because they fail to account for the number of working-age adults in the household and the number of dependents. Households with a low ratio of dependents to working-age adults are better able

to generate income than those with a high dependency ratio. To account for this fact, we distinguish between female-headed households where one or more men of working age are present and female-headed households where no man of working age is present (working age is 15–59 years).

Perhaps not surprisingly, female-headed households with a male present often fare better than those with no male—and, in some cases, do as well as male-headed households. This finding suggests that a more nuanced categorization of rural households may be relevant for policy design and targeting.

Source: WDR 2012 team.

On average, female-headed households are less likely to own and operate land than male-headed households. For 16 countries in five developing regions, 55 percent of female-headed households own land, compared with 64 percent of male-headed households. The figure for female-headed households where a working-age male is present is 61 percent. Female-headed households are also less likely to operate land than their male counterparts—on average, 83 percent of female-headed households operate land in these 16 countries (86 percent among those with male presence), compared with 89 percent among male-headed households (figure 5.12). More generally, where evidence is available for all farmers, women seldom own the land they operate. In Latin America, male farmers represent 70–90 percent of formal owners of farmland depending on the country.¹¹⁰

Female-headed households own and operate smaller plots than male-headed households. In particular, land holdings among female-headed households in the data cited in figure 5.13 are 22 percent smaller than those of male-headed households. The differences for female-headed households with a male presence are 21 percent for owned plots and 26 percent for operated

plots.¹¹¹ In Benin, the average size of women's holdings is 1 hectare, compared with 2 hectares for men's.¹¹² In Burkina Faso, male-controlled plots are on average eight times larger than female-controlled plots.¹¹³ And in four other African countries, the average area cultivated by women ranges from one-third to two-thirds of the average area cultivated by men.¹¹⁴ Similar evidence comes from Latin America.¹¹⁵

Even when women do have access to land, they suffer greater land tenure insecurity. In much of the developing world, women's land rights are significantly circumscribed, if not in principle, then in practice (see chapter 4).¹¹⁶

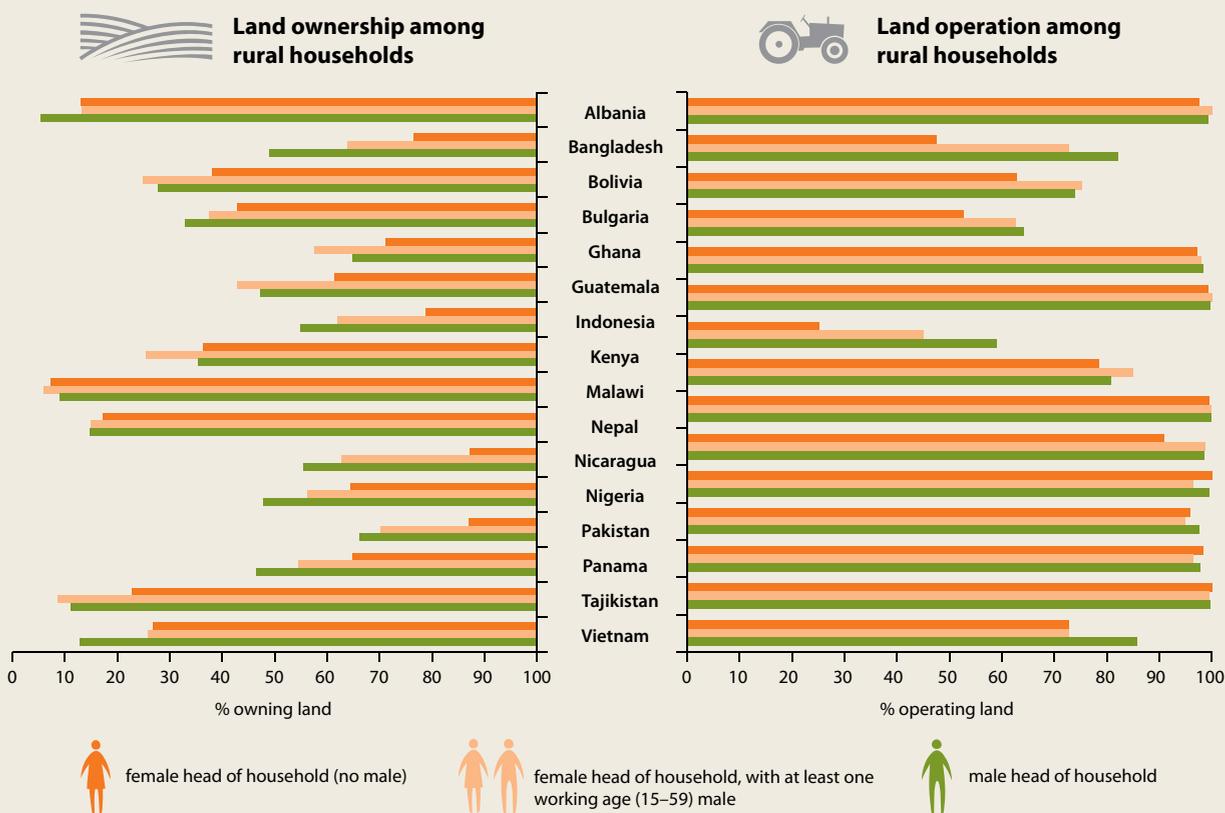
Significant gender differences also exist in access to and use of credit, particularly formal credit.¹¹⁷ Female-headed households in the World Bank/Food and Agriculture Organization data are less likely to have received credit in the past 12 months than male-headed households (24 percent, compared with 28 percent), with smaller gaps for female-headed households with at least one male of working age (26 percent) (figure 5.13).¹¹⁸

In addition, businesses managed by women are less likely to receive a loan than firms managed by men, although the differences narrow

“ There are no resources for women to turn to for loans and also there is not any kind of support and assistance for women. ”

Adult woman, rural Afghanistan

FIGURE 5.12 *Female-headed households are less likely to own and operate land than male-headed households*



Source: World Bank/Food and Agriculture Organization database, most recent year available.

with firm size and are smaller among formal businesses.¹¹⁹ In Guatemala, 14 percent of self-employed men have access to credit, compared with 7 percent of self-employed women; the numbers among male and female entrepreneurs with 2–4 employees are 19 percent and 9.8 percent, respectively; and 18 percent and 16.5 percent, respectively among entrepreneurs with five or more employees.¹²⁰ Among formal firms in Africa, female entrepreneurs have about the same access to credit as their male counterparts.¹²¹

Data on access need to be interpreted with caution, however, because they could reflect both gender differences in the demand for credit as well as differential gender access to and treatment by financial institutions. Female entrepreneurs are less likely to have ever applied for loans than male entrepreneurs.¹²² And when applying, they are more likely to borrow from rotating savings and credit associations (ROSCAs)

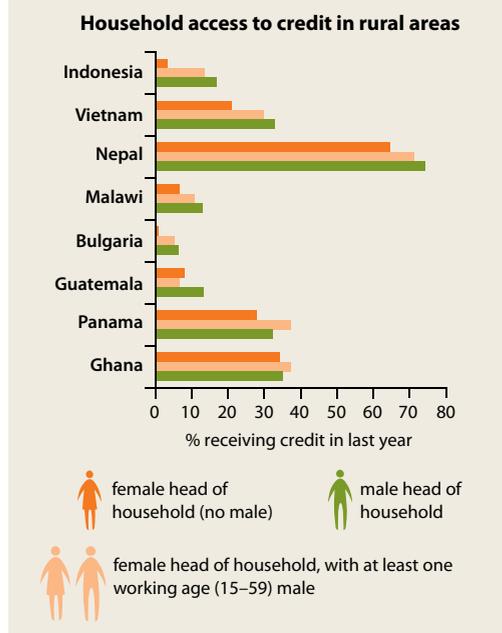
and microfinance institutions¹²³ and to be more credit-constrained than men.¹²⁴

Undoubtedly, the rapid growth of microfinance has alleviated credit constraints among women. In 2007, microfinance organizations reached 154.8 million clients, 106.6 million among the poorest when they took their first loan, 83.4 percent of them women.¹²⁵ It is not clear, however, how much microfinance has increased access to formal financial services (by, say, helping individuals build a credit record), or whether, given the small size of the loans, it has lifted constraints for women who want to borrow slightly larger amounts.¹²⁶

How gender differences in access to land and credit affect segregation in agriculture and entrepreneurship

Gender differences in access to land and credit are likely to translate into gender differences in production. First, the willingness and capacity

FIGURE 5.13 *Female-headed households in rural areas are less likely than male-headed households to have received credit in the last 12 months*



Source: World Bank/Food and Agriculture Organization database, most recent year available.

to use additional production inputs are affected by these resources. Second, access to markets, investment decisions, and growth potential reflect, to some extent, existing constraints on farmers or business owners, as well as their capacity to overcome them. In other words, gender differences in access to land and credit affect the relative ability of female and male farmers and entrepreneurs to invest, operate to scale, and benefit from new economic opportunities.

The combination of small plots, insecure land rights, and binding credit constraints limits female farmers' ability to use agricultural inputs and technology. Women have lower access than men to agricultural inputs, including fertilizer, pesticides, and improved seed varieties.¹²⁷ In all countries in our database, female-headed households are less likely to use fertilizer than male-headed households, with differences ranging from 25 percentage points in Pakistan to 2 percentage points in Nicaragua.¹²⁸ The same is true for mechanization—the use of ploughs, tractors, water pumps, and other agricultural

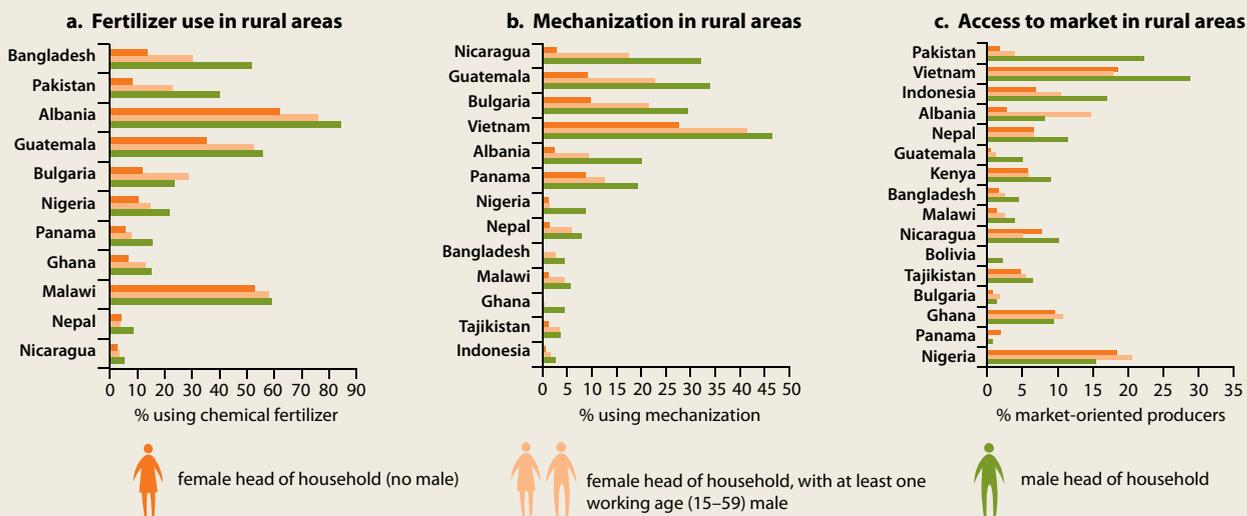
machinery. The gap in rates of machinery use between female- and male-headed households ranges from almost 20 percentage points in Guatemala and Nicaragua to less than 1 percentage point in Indonesia and Tajikistan, with the gap in most countries 5 percentage points or more (figure 5.14).

Land size and, more generally, the capacity to produce at scale determine input use and mechanization.¹²⁹ So, women suffer disproportionately from indivisibilities in the use of inputs and machinery because they cultivate smaller plots and thus are more likely than men to experience higher unit costs. Credit (and cash) constraints are also important. One of the most prominent barriers to the use of fertilizer is capital. Similarly, the large financial outlays for mechanization suggest that credit constraints explain some of the gender differences, although the evidence for this conclusion is sparser. That women are less likely to cultivate cash crops may imply that it is not worthwhile to invest in agricultural inputs or machines.¹³⁰

Gender differences in access to land, credit, and labor also affect women's capacity to access markets and take advantage of new economic opportunities. Female-headed households sell a lower fraction of their agricultural output in the market than male-headed households in 14 of the 16 countries in our database (Bangladesh and Nicaragua are exceptions). Gender differences in market access are largest in Pakistan (25 percentage points) and lowest in Ghana and Tajikistan (2–3 percentage points)—two countries with the lowest overall market penetration (see figure 5.14). Gender differences in access to markets are even more marked for export agriculture.¹³¹ In the Central Highlands of Guatemala, women hold only 3 percent of contracts for snow peas and broccoli (two of the most important crops grown for export in the area).¹³²

In South Africa, Senegal, and China, processing firm managers prefer to sign export contracts with men because women have limited access to productive assets, lack statutory rights over land, and have less authority over family (and therefore over potential farm labor).¹³³ In Guatemala, women's independent—but not joint—ownership of land was found to be a significant predictor of women's participation in nontraditional agro-export production.¹³⁴ Smaller plots and lower capitalizations among female farmers also act as barriers to entering into the export sector.¹³⁵ In northern Nigeria,

FIGURE 5.14 Access to productive inputs and markets is lower among female-headed households than among male-headed households



Source: World Bank/Food and Agriculture Organization database, most recent year available.

higher unit costs and more stringent credit constraints make irrigation farming less feasible for female barley outgrowers (those who grow crops for others on contract).¹³⁶

Gender differences in access to land and credit also reduce the capacity of female farmers to start a business, invest, and grow, relative to their male counterparts. Greater land tenure security promotes higher agricultural investment and productivity.¹³⁷ In Nicaragua, possessing a registered document increases the probability of carrying out land-attached investments by 35 percent, irrespective of whether the document is a public deed or an agrarian reform title, but it has no impact on access to credit. This finding suggests that security of tenure is the channel for formal land ownership to affect investment.¹³⁸

Credit constraints are also a serious obstacle to female-owned business creation, investment decisions, and growth. A recent study by the European Commission shows that difficulties in accessing financing are among the main obstacles for female entrepreneurs-to-be.¹³⁹ The number of studies looking at start-ups in developing countries is small, but the available evidence points in the same direction.¹⁴⁰ In India, among those with access to microcredit, women with an existing business increased their consumption of durable goods; women with a high probability of becoming business owners did the same, and at the same time reduced their nondurable consumption, which is consistent with the need to pay fixed costs to enter entrepreneurship.¹⁴¹

Access to credit and savings mechanisms also affect the investment decisions of entrepreneurs.

“ I think you should consider everything carefully if you want to get a loan. If I want to get a 10 million loan, what do I want to do with that money? In initial months, I breed some livestock to get some revenue. I may spend some money on breeding pigs and some on breeding chickens. I can use the money I earn from breeding chickens to pay for the debt. I have something to rely on to pay for the debt. The loan not only helps create jobs for my family members but also improves my family conditions. ”

Adult woman, Vietnam

In Kenya, access to savings accounts had a large and positive impact on productive investments and expenditures for female microentrepreneurs but not for male ones, despite the availability of informal saving sources such as ROSCAs.¹⁴² Restricted access to finance is also likely to curtail business growth, particularly among micro and small firms, because they are less able to provide collateral and because the number of financial products that target them specifically is more limited.¹⁴³

Lifting constraints on access to land and credit

Markets, institutions, households, and their interactions—rather than economic development—explain gender differences in access to productive inputs. Market prices can constrain women's access to inputs, particularly credit, disproportionately. Similarly, formal and informal institutional constraints can have gender-differentiated impacts on access, even when they were not intended to do so. And household preferences (and underlying gender norms) can lead to resource allocations that favor men over women, even when these allocations are inefficient. In contrast, many of the gender gaps in access to productive inputs are fairly insensitive to economic development and to the density and coverage of specific markets.¹⁴⁴

Markets: Discrimination and differential pricing in land and credit markets

Land and (formal) credit markets have been weak means of increasing access to land and credit among female farmers and entrepreneurs.¹⁴⁵ And inequalities in one market often reinforce inequalities in the other—land often serves as collateral for credit, and credit is often needed to acquire land.

Lower access to markets results from the combination of gender discrimination and differential pricing. In some parts of the world, women face discrimination in land and credit markets.¹⁴⁶ In Europe and Central Asia, female-managed firms pay higher interest rates than their male counterparts (0.6 percentage point more on average), with even higher price discrimination against female entrepreneurs in the region's least financially developed countries.¹⁴⁷ In Italy, female-owned microenterprises pay a higher interest rate (about 0.3 percentage point more) than those run by men, even after accounting for the characteristics of the borrower

and business, and the local conditions of the credit market.¹⁴⁸

Higher interest rates could also reflect differences in observable indicators of credit worthiness or in lenders' perceptions of borrowing risks associated with women in the absence of objective information on their performance as borrowers. Because women are less likely than men to interact with the (formal) financial system, they are more likely to suffer disproportionately from higher interest rates because of the lack of information on their potential performance as borrowers.

Having said that, market and institutional constraints (discussed below) on access to formal credit can be surmounted through financial innovation and adapting the credit model to address the needs of small businesses (see box 7.5 in chapter 7).

Formal institutions: Land rights, land distribution programs, and financial regulations

Institutional structures in land and credit markets often disadvantage women. Inheritance and marital regimes and land titling perpetuate and sometimes add to gender disparities in land ownership and accumulation (see chapter 4).¹⁴⁹ Marital property regimes governing the ownership and control of assets brought to and acquired during marriage determine how women fare in the event of widowhood or marital breakdown.¹⁵⁰ When women are considered to be under the guardianship of husbands, the control and often the ownership of marital property rests with husbands and their families—so many women are vulnerable to dis-possession at the dissolution of their marriage or the death of their husband. Similarly, customary patrilineal inheritance systems, where property passes to and through male members of the lineage, can relegate women to the status of unpaid family labor on family farms or, for the growing numbers of landless and land-poor households, to agricultural wage labor.¹⁵¹ Evidence from Ethiopia and the Philippines shows that, by means of marriage and inheritance, larger and better-quality assets, including land, are transferred to men.¹⁵²

Women are also less likely to benefit from state-sponsored land redistribution programs. In 13 Latin American land reform programs, the fraction of female beneficiaries was around 11–12 percent.¹⁵³ In most cases, gender imbal-

ances in access can be attributed to the institutional structure of these programs—they tend to target household heads (in the past solely identified as male), sometimes restricting households to one beneficiary (perhaps to prevent fraud), so men were much more likely to have benefited. That implies that gender differences can be mitigated through policy reform. In Colombia, the share of female beneficiaries from agrarian reform increased from 11 percent to 45 percent once joint titling for land parcels was mandated and enforced.¹⁵⁴

For credit, the rules and regulations applied by formal and, in some cases, informal institutions can restrict access by small farmers and producers, among whom women are overrepresented. Because credit often requires collateral, preferably land or immobile assets, women are at a disadvantage because they have lower or less secure access to land and are disproportionately employed in the service sector where capitalization is lower and output is often intangible. In India, the absence of land titles significantly limits women farmers' access to institutional credit.¹⁵⁵ In the Middle East, women's small and medium enterprises are often in services, where banks have difficulty quantifying output because there are no physical assets, such as machinery, to serve as a basis for loan assessment.¹⁵⁶ In addition, application procedures that require a husband's or father's cosignature could discourage prospective female borrowers.¹⁵⁷ Similar requirements are sometimes also found in informal and micro-finance institutions.¹⁵⁸

Where credit comes through informal institutions, the structure of the organization and its membership and the norms governing it can restrict access to women. For example, rules for membership in farmers' clubs in Malawi (one of the main sources for credit and extension services for small farmers) disqualify married women from full membership and stigmatize single women or women in polygamous marriages, undermining their capacity to benefit from the services the club could offer.¹⁵⁹

Informal institutions: Gender-based preferences and intrahousehold allocations of productive resources

Gender-based preferences can lead to unequal resource allocations to men and women in the same household. For example, inheritance laws in Latin America treat men and women equally,

but individual preferences for asset allocation on their death may perpetuate gender imbalances in access to land and other assets. A review of wills in Mexico shows that partners were chosen to inherit land 39 percent of the time, sons 39 percent of the time, and daughters 9 percent of the time.¹⁶⁰

Some gender-based preferences are so powerful that they lead to and help support inefficient allocations of productive resources and imperfect resource pooling within households—with negative impacts on gender access. In Burkina Faso, preference is given to male-controlled plots in the allocation of productive inputs, which results in a 6 percent estimated loss in total household income.¹⁶¹ In Paraguay, women benefited more than men from increased access to credit, including women in households that were not credit constrained, suggesting that financial resources were not effectively pooled across men and women in the same household.¹⁶²

But behavior does respond and adapt to economic change that opens new opportunities. In southern Cameroon and western Ghana, increased bargaining power among women associated with higher demand for labor in cocoa, a very labor-intensive traditional export crop, has led many husbands to circumvent traditional practice by enabling their wives to inherit land through “indirect means” as a reward for helping them plant and cultivate cocoa.¹⁶³ The result was more individual land ownership and stronger women's land rights.

GENDER IMPACTS OF “AGGREGATE” MARKET AND INSTITUTIONAL FAILURES

Markets and institutions—their design and operation—are themselves products of the agents who populate them as well as of the agents' interactions. The extent to which market participants share and transmit information deter-

“If there is a job opening in a company that is oriented toward male jobs, they will rather hire a man.”

Adult woman, urban Serbia

mines their behavior and ultimately the market outcomes. *Market failures* in information occur when information is lacking or when some participants have more information than others. These failures can affect employment outcomes of men and women and therefore contribute to employment segregation by gender.

For example, a recent female graduate in industrial engineering may fail to get a job in a private company because the potential employer is not sure how well a female worker will fit into an otherwise all-male company. In other words, she may not get the job because the employer has too little information about her potential performance. Similarly, a female entrepreneur in a village may use her capital to buy chickens—because that is what all other women in the village do, not because it would yield the highest returns. In other words, she mimics the behavior of others in her network because she does not have information about productive alternatives.

The structure and rules of different institutions can also affect how agents interact with these institutions and among themselves. In some cases, the institution's structure or rules could lead to gender-differentiated behavior or impacts, even if they were conceived to be gender neutral. These *institutional failures* can contribute to employment segregation. For example, a female farmer in rural Ethiopia may have limited use for agricultural extension services in her area because these services focus on crops cultivated by men. Similarly, a woman of reproductive age may have more difficulty finding a job in the formal sector if maternal leave is paid by the employer than if it is financed through general taxes because she will be perceived by the prospective employer as potentially more expensive to hire than an equivalent male.

What you know and whom you know matters: Gender impacts of information and access to networks

Lack of information about women's performance arising from the limited presence of women in some markets may reinforce low female labor participation, especially without compensatory measures that foster experimentation and learning. In many countries, low female participation in formal private employment makes it difficult for employers to adequately form expectations about female workers' productivity. So they may continue to be reluctant to hire female workers,

perpetuating the bias against female employment (this behavior is usually referred to as statistical discrimination).

The story is similar in the credit market, where limited access of women precludes learning about their potential performance as borrowers, including their ability to repay. Perceived cost or other differences between men and women and reinforcing social norms exacerbate this problem. For example, a preference for well-tried-and-tested borrowers among commercial banks could reduce the credit to small farms and nonfarm enterprises and thus for women who predominate in these groups.¹⁶⁴

Affirmative action policies in the United States and other developed countries have promoted learning among employers about the performance of such groups by supporting the employment of underrepresented groups. In the United States, these policies did indeed redistribute employment from white males to women and minority groups at no significant efficiency costs.¹⁶⁵

In the absence of affirmative action policies, female employment in the public sector in fairly large numbers can also have such a demonstration effect. In rich countries, public sector growth has been important in integrating women into the labor markets.¹⁶⁶ Data for 15 developed economies show a very strong correlation between female labor force participation and female public sector employment but a much weaker correlation for males. More important, increases in female labor force participation in countries with large public sectors or high public sector employment growth are driven by increases in both public and private sector employment. Of 12 such economies with data, women were more likely than men to work in the public sector in only 5 countries, and less likely to do so in 4. In the remaining 3 countries, gender was not significant in explaining the probability of public sector employment after controlling for other relevant worker characteristics.¹⁶⁷

“ People find out [about available jobs] through networking and connections; if you know someone who is working they will tell you about a job opening. ”

Young woman, urban South Africa

BOX 5.10 *Family formation and public sector employment in Egypt*

In 2006, private sector firms accounted for less than a quarter of female employment in urban Egypt. Their share in rural female employment was even lower, hovering at around 8 percent. The majority of working urban women held government jobs, and in rural areas the government and household enterprises accounted for more than 70 percent of female employment.

It has been asserted that work in the public sector is more compatible with women's "reproductive role," offering "shorter hours, more access to childcare, and greater tolerance for maternity leave." In 2006, the proportion of workers who reported having been at work during their last pregnancy was significantly higher in the public sector. As many as 86 percent of public sector workers who had a baby while working were given paid maternity leave of at least six weeks, in contrast to only 47 percent of those working in the formal private sector. And the percentage of working women aged 15–29 years who complain of long working hours is significantly higher in the private sector (50 percent) than in the public sector (32 percent).

Job separations are also lower in the public sector. Among women working in 1998, government and public sector employees were the least likely to have left the labor force by 2006. Specifically, the rate of exit of female private firm employees was about 12 percentage points higher than that of female government employees, and this difference was statistically significant. The exit rates for women working in an informal firm or household enterprise or for those self-employed were about 35 percentage points higher than the exit rate of government employees. These differences persist after accounting for individual characteristics.

Exit rates are driven primarily by marriage, but the association between marriage and leaving the

labor force is far weaker in the government (public) sector. Relative to women whose marital status was unchanged, those who married between 1998 and 2006 were significantly more likely to have left the labor force by 2006 (by about 14 percentage points). Moreover, women age 20 and working in a private sector job in 1998 would have a 26 percent chance of exiting the labor force by 2006 if they did not marry in the interim, and a 54 percent chance of exiting if they did marry, compared with 16 and 22 percent for women employed in the public sector. So, the effect of marriage was to raise the exit rate for a private employee by 28 percentage points and that of a government employee by 6 percentage points. The effect of marriage on exit among informal sector employees is significantly higher than among government employees.

The difference across government and informal sector employees in women's labor market exit rates after marriage is largely an urban phenomenon. In rural areas, the difference was not statistically significant. That suggests that informal sector work in rural areas, which consists primarily of animal husbandry and processing of dairy products, is just as compatible with marriage as government work. The line between women's productive and reproductive roles in rural areas is much more blurred.

For urban areas, there is some evidence that the post-marriage retention rate is highest among women working in household enterprises, higher even than that among government employees. Because work in a household enterprise is likely to be very flexible in hours, this result also supports the idea that married women are more likely to keep working if work hours and married life are compatible.

Source: World Bank 2010a.

Public sector employment growth in developing countries has often been the main or even the only opportunity for formal wage employment for women, especially for educated and married women and where views of women's participation in market work are more restrictive. In Egypt, women's clustering in public sector jobs can be partly explained by the observation that government jobs fit better with married life (box 5.10).

The expansion of microfinance may have produced a similar demonstration effect in

credit markets. By targeting women and designing delivery mechanisms that promote good performance and high repayment rates among borrowers, microfinance institutions have generated enormous amounts of information about women's performance as borrowers. Updated expectations about the high average profitability of lending to women are now attracting more traditional credit providers (see box 7.5 in chapter 7).

Low female participation in some occupations or professions not only affects those try-

ing to enter these occupations or professions but can also adversely affect the performance of women already employed in them, especially if gathering information is costly or if networks built around gender are important. For both sets of women, there is a benefit to additional participation by women. In the United States, over the past century, the evolution of female labor force participation can be explained thus: when small proportions of women worked, learning was very slow and the changes in female labor force participation were also small, but when the proportion of women working was close to half the total working, rapid learning and rapid changes in female labor force participation took place.¹⁶⁸ Investment and participation decisions are often driven by perceived rather than actual returns, so in the absence of critical group mass in a specific market, imperfect information can slow learning even more.¹⁶⁹

Barriers to being part of networks, either because of low female participation rates or because of more explicit gender-based membership rules, can reduce women's productivity by limiting their ability to gather and share information and potentially access markets. Women are less likely than men to participate in non-exclusively female networks and to be connected to peers within larger, more informal groups. Data from the Global Entrepreneurship Monitor suggest that in high- and middle-income countries female entrepreneurs are substantially less likely than men to know an entrepreneur who started a business in the two years preceding the interview.¹⁷⁰ Similarly, Mexican female entrepreneurs' difficulties in breaking into men's networks constitute one of the most important constraints to business growth.¹⁷¹

To the extent that valuable information is communicated through these networks, differential access by gender can impair women's economic performance. Data from Investment Climate Surveys on formal urban businesses in Sub-Saharan Africa show that having a father who was an entrepreneur or joining a family

business improves firm productivity,¹⁷² suggesting that better access to networks boosts productivity. But the effect is significant only for men, implying that women face stronger constraints that diminish the positive impact of this potential advantage. Women also face barriers to membership in rural organizations and cooperatives, which may further inhibit a channel to facilitate market access.¹⁷³ Even in West African rural markets, despite the fame of the "market queens" and greater mobility of women relative to other regions, women rarely achieve upward economic mobility. The economic resources and connections necessary for the spatial and social mobility to amass wholesale consignments, command transport, and own processing facilities are typically in the hands of men.¹⁷⁴ Here new information and communications technology holds enormous promise for lifting some of the time and mobility constraints that women face (see chapter 6).

Finally high female participation rates in specific occupations and significant (or "thick") networks can also have negative effects.¹⁷⁵ New market entrants will be more likely to cluster where others from the same group are already present, perpetuating segregation. This argument has been used in the education literature to explain gender segregation by field of study, as well as the feminization of the teaching profession.¹⁷⁶ A lack of adequate information would only exacerbate this phenomenon. For example, employment audits showing that employers discriminate against men in "traditionally female" jobs (nursing) and against women in "traditionally male" jobs¹⁷⁷ are more likely to reflect discrimination arising from imperfect information than differential hiring preferences across sectors.

The rules of the game matter: Gender impacts of formal (economic) institutions

Institutions conceived to serve men and women equally can have unintended differential impacts on gender outcomes. In some cases, the design and functioning of a particular institu-

“ [Getting a job] is very difficult, even to have an opportunity for apprenticeship. I have difficulties to be an apprentice because only 'insiders' can bring people to apprenticeships. ”

Young woman, urban Indonesia

tion are products of existing inequalities, so the institution does little to mitigate them. Agricultural extension services illustrate this point. In other cases, gender inequalities on dimensions other than the ones a specific institution deals with directly mediate its impact in ways that may lead to differential gender outcomes. “Gender neutral” labor legislation and hiring personnel practices illustrate this point. In both cases, the failure to account for gender differences in the sphere of influence of a particular institution lead to further gender inequality.

Agricultural extension services for all— or just for men?

Agricultural extension services—which include advisory services, information, training, and access to production inputs such as seeds and fertilizers—increase the productivity of farm activities. But extension services have largely ignored women farmers in many areas.¹⁷⁸ In Vietnam, women spent 30 percent of their total labor efforts in agricultural self-employment, compared with 20 percent for men, but made up only 25 percent of participants in training programs on animal husbandry and 10 percent on crop cultivation.¹⁷⁹ In Karnataka, India, 29 percent of land-holding male-headed households received an extension visit, while 18 percent of female-headed households did. For livestock extension, by contrast, 79 percent of female-headed households had contact with an extension agent, against 72 percent for male-headed households.¹⁸⁰

Gender differences in access to extension services arise even within households. In Ghana, 12 percent of male-headed households received extensions visits, compared with 2 percent of female-headed households. And in male-headed households, only 2 percent of spouses received a visit. This is particularly striking because Ghana is one of the African countries with the largest number of female-extension officers.¹⁸¹

A bias in service delivery toward men has been identified as a cause of gender differences in access to extension services—bias often stemming from the belief that men are the decision makers and so should be more actively targeted,¹⁸² combined with the assumption that educating men will ensure that they share knowledge with other household members.¹⁸³ This reasoning may run afoul of the reality of households not acting as a

single unit, particularly when men and women are carrying out different tasks or growing different crops. This pro-male bias can also result from discriminatory norms or practices within the institution. The U.S. Department of Agriculture recently settled with a group of women farmers who brought a lawsuit for gender discrimination in access to credit services.

Bias in service delivery also arises because the large majority of extension officers are men. Only 15 percent of extension agents globally are women,¹⁸⁴ and in Africa, a mere 7 percent.¹⁸⁵ As a result, social norms that prevent women from moving around (and thus visiting the extension officer) or speaking with a male without her husband present constrain women’s access to extension services. In addition, male officers tend to serve male farmers.¹⁸⁶ That extension resources tend to be allocated toward larger commercially oriented farms, where women are underrepresented, has also contributed to the observed gender differences in access.

How labor legislation and hiring and personnel practices can hurt women

Labor legislation and other practices regulating the functioning of labor markets can have significant gender impacts. In some cases, the legislation itself focuses on gender; examples include restrictions on hours of work, industry of employment and parental leave. In others, such as employment protection laws, the legislation is meant to be gender neutral, but its effect is not. Practices for hiring and personnel management can also hurt women.

Impact of gender-based legislation on women’s employment outcomes

Many countries impose restrictions on women’s access to market work and on the kind of work that women may do. Numerous African countries require by law that a woman acquire her father’s or husband’s permission to work outside the home, while in other places women may not open or operate an individual bank account.¹⁸⁷ In addition, restrictions on work hours and industry of work are often introduced as protective measures to take into account the health of pregnant women, nursing mothers, or women engaged in potentially hazardous jobs. Industry restrictions are more common than work hour restrictions, but the two often coexist. Although

now gone, such practices were also common in the not too distant past in some developed economies such as Spain.

These restrictions appear to be associated with lower female participation rates and higher labor market segregation. Countries that impose some kind of work hour or industry restrictions have on average lower female labor force participation (45 percent, compared with 60 percent in countries with no restrictions) and higher gender participation gaps (45 percent, compared with 25 percent in countries with no restrictions). Measures limiting women's work to daytime hours, or to a subset of industries, may also limit their employment opportunities—driving employers to hire only men for jobs that women may otherwise chose. Their overall impact depends on women's preferences for employment, however—that is, even without restrictions, few women may choose work in mines or work that requires strong physical labor.¹⁸⁸

Differential regulation of parental leave and retirement can also affect female labor force participation. Most countries provide some sort of maternity leave, but benefits vary considerably in the number of days, the percentage of leave paid, and who pays for it. Fewer countries provide paternity leave, often under more limited conditions. Existing differences in parental leave between men and women could increase the perceived cost of employing women and therefore diminish their employment opportunities (see chapter 7). And, while differential retirement ages have in many cases been motivated by protective instincts, these differences can create disparities in lifetime earnings, pension benefits, and career opportunities, thus discouraging women from market work (see chapter 4).

The impact of “gender neutral” legislation and personnel practices on women’s employment outcomes

Employment protection legislation and other regulation aimed at providing job security to those in formal jobs—the insiders—often does so at the expense of those who have no access to such jobs or have no job at all—the outsiders. Unemployment rates and the incidence of temporary contracts are significantly higher among women and youth than among men, and these differences are more marked in places where labor protection is more restrictive and the dif-

ference between permanent and temporary employment more marked.¹⁸⁹

Social security regulations for domestic workers is another clear example of legislation with a strong gender impact. Across the world, domestic workers have very limited access to employment insurance, retirement and health benefits, and other forms of workers' compensation—even when formally employed. Because the large majority of domestic workers are women, this translates into significant lower access to social security among female workers than their male counterparts.¹⁹⁰

Job segregation by gender can depend on job assignment and promotion practices within firms. Some people who make job assignments intentionally discriminate against one sex for certain jobs (see box 5.3); others discriminate statistically, using sex as a proxy for productivity. Statistical discrimination is often based on gender stereotypes—stereotypes of men as rational and women as emotional often favor men for managerial positions.¹⁹¹ The gender composition of jobs and firms influences who applies and who is hired, presumably reflecting both the job's gender labels and the employers' tendency to recruit through employees' personal networks.¹⁹² In sum, whether the participants in the matching process view the job as appropriate for persons of a particular sex boosts the association between gender and people's jobs or place of work—in other words, it boosts employment segregation.

Industry and occupational segregation in turn contributes to the observed gender promotion and authority gaps, as well as to differences in workers' attitudes and behavior.¹⁹³ First, differences in the spacing and length of the job ladders in male- and female-dominated jobs create a mobility gap among the sexes. Predominantly male jobs have longer ladders (promotion paths that connect lower- and higher-level positions) than female jobs.¹⁹⁴ In addition, the rungs between the steps on ladders in predominantly female jobs are closer together, so promotions yield less advancement for women than men.¹⁹⁵ Second, women are more likely to be managers in heavily female industries,¹⁹⁶ so men and women usually have same-sex supervisors.¹⁹⁷ Third, men's and women's concentration in different jobs or firms and their different location in the firm's “opportunity structure” generate

differences in their attachment to the labor force, their career aspirations, and their work behavior. Data from a Fortune 500 corporation reveals that although most workers in dead-end white-collar jobs were women, anyone in such a job would lack job commitment, preferring instead to socialize with coworkers.¹⁹⁸ And while men held most of the jobs on promotion ladders, both men and women in such jobs displayed career commitments and sought advancement.¹⁹⁹

BREAKING OUT OF THE PRODUCTIVITY TRAP: HOW AND WHY TO DO IT

We conclude with a brief review on the main insights that arise from the application of the Report's framework to the analysis of employment segregation by gender and its causes and their implications for policies, as well as a discussion of the reasons for policy action for lower segregation.

Weakening feedback loops and mutually reinforcing constraints

There is a feedback loop between employment segregation and its causes. As we have shown, three main factors contribute to gender segregation in access to economic opportunities among farmers, entrepreneurs, and wage workers: gender differences in time use (primarily stemming from differences in care responsibilities), gender differences in access to productive inputs (particularly land and credit), and gender-differentiated impacts of market and institutional failures.

At the same time, gender segregation in access to economic opportunities reinforces gender differences in time use and access to inputs, and markets and institutional failures. Take gender differences in time use. Because women tend to be employed in low-productivity and low-pay jobs, they have a comparative advantage in home production relative to men. So, gender differences in productivity in paid and unpaid work strengthen existing incentives for specialization in housework and care work and reinforce gender differences in time use.

The same can be argued about gender differences in access to productive resources. For example, lower commercialization among female farmers may discourage investments that could

increase productivity of female plots (either directly through complementary productive inputs or indirectly through, say, time-saving investments) and potentially increase access to markets. And, a general perception that women's businesses have a more limited capacity for growth among credit institutions could limit access to credit for female entrepreneurs, which itself would impede growth.

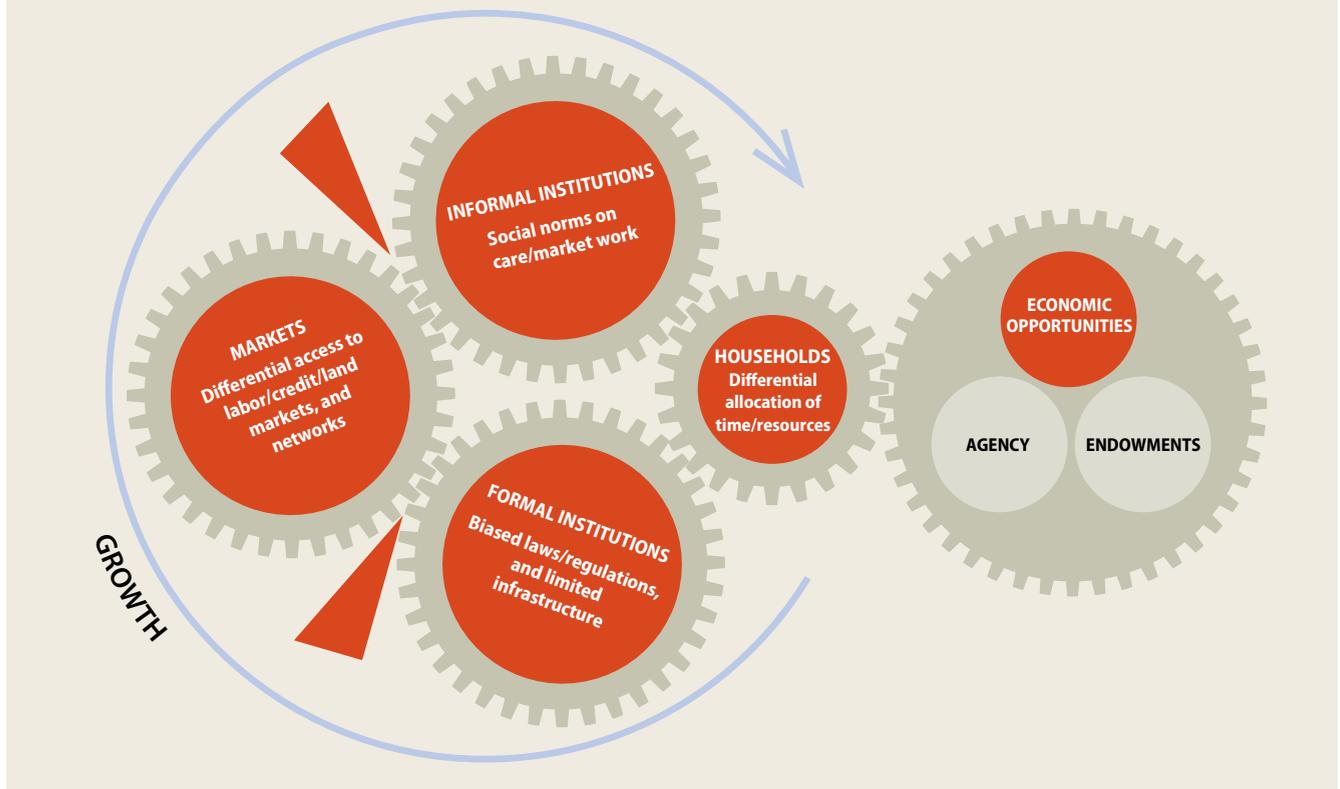
In addition, market and institutional constraints can be mutually reinforcing so that progress in one area fails to lead to higher gender equality in access to economic opportunity without progress in another area. For instance, increasing returns to education in the labor market provide stronger incentives for female participation in paid work, but these incentives may fail to attract more women to the market in the presence of traditional norms for female participation in market work. And institutional changes that allow more flexible employment, such as part-time work, can ease existing time constraints but may have a limited effect on women's employment outcomes in the absence of complementary measures such as an expansion in (child) care services.

This feedback loop between the main causes of employment segregation by gender and segregation itself, together with mutually reinforcing market and institutional constraints, are the main reasons why women appear to be in a productivity trap (figure 5.15). Breaking out of this trap thus requires interventions that lift time constraints and increase access to productive inputs among women and that correct market and institutional failures. Successful interventions will depend on adequately identifying and targeting the most binding constraint in each context, while acknowledging the problem of multiple constraints, perhaps by sequencing policies (see chapters 7 and 8).

The payoff from breaking out of the productivity trap

The payoff from breaking out of the productivity trap will be apparent on several critical fronts. Increasing gender equality in access to economic opportunities can have large impacts on productivity. Women now represent more than 40 percent of the global labor force and 43 percent of the agricultural workforce. According to the Food and Agriculture Organization, equalizing access to productive resources be-

FIGURE 5.15 *Mutually reinforcing market and institutional constraints are the main reason why women appear to be in a productivity trap*



Source: WDR 2012 team.

tween female and male farmers could increase agricultural output in developing countries by 2.5–4 percent.²⁰⁰ In-depth studies from specific countries point to similar gains. For example, ensuring that women farmers have the same access as men to fertilizer and other agricultural inputs would increase maize yields by 11–16 percent in Malawi and 17 percent in Ghana. And improving women's property rights in Burkina Faso would increase total household agricultural production by about 6 percent with no additional resources—simply by reallocating fertilizer and labor from men to women.

Eliminating discrimination against female workers and managers could increase productivity per worker by 25–40 percent, depending on the type and degree of exclusion from the labor force and the managerial pool.²⁰¹ And eliminating barriers that prevent women from entering certain occupations or sectors of employment would have similar positive effects, reducing the productivity gap between men and

women. For instance, in the United States, about 40 percent of the convergence in wages between the south and the northeast between 1960 and 1980 and 15–20 percent of total wage growth between 1960 and 2008 resulted from declining labor market segregation by gender and race.²⁰²

These gains can bring wider benefits. To the extent that increased access to economic opportunities leads to greater control by women over household income and other resources, it can strengthen women's agency and benefit others in the household, particularly children (see chapters 3 and 4). The private sector can support and gain from higher female participation in market work and lower segregation as women's skills and talents are employed in jobs that make the best use of those abilities (box 5.11). Taking advantage of this opportunity is particularly important as rapid technological change and the spread of information and communication technologies increase the demand for skilled workers around the world, and

BOX 5.11 *The business case for gender equality*

More firms realize that promoting women's economic empowerment can be a win-win situation for business and women. Belcorp in Peru and Hindustan Unilever in India illustrate how using innovative business models to invest in the female workforce can be good for business and bring tangible change to women's lives and local communities.

Belcorp. A well-established cosmetics company with over 40 years of experience in the industry, Belcorp has a stellar reputation for high-quality products. Through direct sales, in 15 countries in North and Latin America, its 9,000 employees generate US\$1.3 billion in annual revenue.

Women are crucial to the company's business model and success. They make up 80 percent of Belcorp's workforce and 77 percent of its senior staff. Belcorp realized early on that promoting women's empowerment was a sound business strategy. Through its operations, it gives each of its 650,000 beauty consultants (most from low-income households) the opportunity to become entrepreneurs and to benefit from business training, social networking, and group activities to educate and empower them, their families, and their communities.

Belcorp's business model is based on three axes: economic support (by providing a business opportunity with appropriate training), emotional support (through incentives, recognition, and confidence building, as well as awareness on issues such as nutrition, health, and child upbringing, to address both the personal and the family considerations crucial to women), and social support (by giving women the chance to be part of a network of peers).

Hindustan Unilever. With a long record of market leadership in India, Hindustan Unilever has market shares of nearly 60 percent in categories including soap, detergent, and shampoos. But the liberalization of India's economy and the opening of markets to foreign multinationals such as Procter & Gamble increased the pressure to improve revenues and profits. By the late 1990s, the company was looking for the next big opportunity—to reach the really small villages that were not part of their distribution network.

The business case of focusing on rural Indian markets was clear. India has the world's second-largest population after China, and more than 70 percent of its 1.2 billion people live in rural areas. While the business reason was clear, setting up a distribution channel to reach remote parts of India was less straightforward. Hindustan Unilever had been tapping into some of the rural populations through such tools as van road shows, but a large share remained outside its reach. It came up with an interesting solution: build a distribution system through a network of women microentrepreneurs to get the product directly to consumers.

It designed Shakti, a direct-to-consumer sales distribution network that relies on 45,000 female microentrepreneurs and has tapped into 3 million homes across 135,000 villages in remote rural markets. The program has brought a new competitive advantage and increased profits while increasing women's incomes. And by packaging products into very small amounts and selling them at prices affordable to the rural poor, it is improving hygiene and well-being in rural India.

Sources: International Finance Corporation 2010a, 2010b.

women—especially educated women—present an untapped pool of resources in the search for talent and skills.

Gender inequality in access to economic opportunities is also becoming more costly for most countries. Global aging implies that fewer workers will be supporting a growing population of elderly in the years and decades to come, unless labor force participation increases significantly among groups with low rates today—basically,

women. Europe can expect a shortfall of 24 million workers by 2040 if the participation rate for women remains constant. If instead this rate rises to that of men, the projected shortfall drops to 3 million.²⁰³ And in an economically integrated world, even modest improvements in the efficiency of use of resources can have significant effects, giving countries with less discrimination and more equality a competitive edge (see chapter 6).

CHAPTER SUMMARY *Persistent employment segregation by gender traps women in low-productivity, low-paying jobs*

WHAT WE SEE

Men's and women's jobs differ greatly and the changes in the structure of employment brought about by economic development are not enough to eliminate employment segregation by gender. All over the world, women are concentrated in low-productivity, low-pay jobs. They work in small farms and run small firms, they are over-represented among unpaid workers and in the informal sector, and they rarely rise to positions of power.

WHY WE SEE THIS

Care Responsibilities and Time Use

Women bear a disproportionate share of house and care responsibilities and consequently face important fixed costs associated with market work. Fixed schedules and minimum hour requirements, particularly in (formal) wage jobs, and the difficulty in adjusting responsibilities at home result in barriers to market work for women. Social norms around the role of women in the household and society also influence these trade-offs. Women are thus more likely to value flexible work arrangements and to supply fewer hours of market work on average than men, putting them at risk of being channeled into lower-quality jobs.

Land and Credit

Across countries, female farmers and entrepreneurs have less access to land and credit than their male counterparts. Gender differences

in access to these productive inputs result from a combination of barriers to market access, including discrimination and differential pricing in land and credit markets, and institutional constraints, including land rights and financial rules and regulations. They may also reflect discriminatory preferences within households that favor men in the allocation of productive resources. These differences are likely to translate into gender differences in scale of production, productivity, and investment and growth capacity.

Market and Institutional Failures

Women's limited presence in certain markets may create barriers to knowledge and learning about women's performance, which in turn reinforces women's lack of access to these markets. In addition, the design and functioning of institutions may be (intentionally or unintentionally) biased against women in ways that perpetuate existing inequalities.

WHAT THIS MEANS FOR POLICY

The interaction of employment segregation with gender differences in time use and access to inputs and with market and institutional failures traps women in low-paying jobs and low-productivity businesses. Breaking out of this productivity trap thus requires interventions that lift time constraints, increase access to productive inputs among women, and correct market and institutional failures.

NOTES

1. Blau and Kahn 2000; Terrell 1992; Hertz and others 2009.
2. See FAO (2011) for a complete literature review. See also Jamison and Lau (1982); Tiruneh and others (2001); Horrell and Krishnan (2007).
3. Udry and others 1995; Udry 1996; Akresh 2008.
4. In this chapter, the term *entrepreneur* refers to individuals who are self-employed with no employees (own-account workers) and with employees (employers).
5. Sabarwal, Terrell, and Bardasi 2009; Bruhn 2009; Hallward-Driemeier 2011a; Hallward-Driemeier 2011b.
6. Costa and Rijkers 2011.
7. Robb and Wolken 2002.
8. Chaganti and Parasuraman 1996; Loscocco and others 1991.
9. Bosma and others 2004; Lohmann and Luber 2004; Kalleberg and Leicht 1991; Kepler and Shane 2007.
10. Blau and Kahn (2000) for the United States; ILO (2009) for the European Union.
11. Das and Dutta 2008; Whitehead 2009.
12. Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Estonia, Germany, Ireland, Italy, Latvia, Lithuania, Luxemburg, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia and Spain.
13. Alene and others 2008; Kumar 1994; Mook 1976; Saito, Mekonnen, and Spurling 1994.
14. Aterido and Hallward-Driemeier 2009; Brush 1992; Costa and Rijkers 2011; Morris and others 2006; Watkins and Watkins 1984.
15. Blau and Kahn 2000 and Terrell 1992.
16. Ñopo, Daza, and Ramos 2011.
17. Bertrand, Goldin, and Katz 2010; Goldin and Katz 2008; Joshi, Paci, and Waldfoegel 1999; Wilde, Batchelder, and Ellwood 2010.
18. Sabarwal, Terrell, and Bardasi 2009; Hallward-Driemeier 2011b.
19. Gajigo and Hallward-Driemeier 2011.
20. Goldstein and Udry 2008.
21. Croson and Gneezy 2009.
22. Brush and others 2004; Bird and Brush 2002.
23. Minniti 2010; Welter and Smallbone 2003.
24. Blau and Kahn 2000; Goldin and Katz 2008; Wood, Corcoran, and Courant 1993.
25. Dolado, Felgueroso, and Jimeno 2003; Killingsworth 1990; Macpherson and Hirsch 1995; Pitts 2003.
26. Blau and Kahn 2000.
27. Goldin and Katz 2008; Weinberger 1998; Wood, Corcoran, and Courant 1993.
28. Becker 1957.
29. Black and Brainerd 2004; Black and Strahan 2001; Hellerstein, Neumark, and Troske 1997.
30. Andrabi and others 2007.
31. Görlich and de Grip 2009.
32. Macpherson and Hirsch 1995; Pitts 2003.
33. Lallemand and Rycx 2006; Kahyarara and Teal 2008; Herrera and Badr 2011.
34. ILO 2010b.
35. ILO 2010b.
36. We use the Rural Income Generating Activities (RIGA) database, which is a collaborative effort of the Food and Agriculture Organization, the World Bank, and American University that harmonized a set of nationally representative surveys to study livelihood strategies and income sources. The RIGA database includes data on Albania, Bangladesh, Bolivia, Bulgaria, Ghana, Guatemala, Indonesia, Kenya, Malawi, Nepal, Nicaragua, Nigeria, Pakistan, Panama, Tajikistan, and Vietnam. Samples are representative of rural areas at the national level.
37. Bruhn 2009; Hallward-Driemeier 2011a; Sabarwal, Terrell, and Bardasi 2009; Costa and Rijkers 2011.
38. Hallward-Driemeier 2011a.
39. Mead and Liedholm 1998; Bruhn 2009.
40. World Bank 2010d.
41. Morris and others 2006.
42. Aidis and others 2007; Bardasi and Gornick 2008; World Bank 2008.
43. Allen and others 2008.
44. ILO 2010b; Anker, Melkas, and Korten 2003.
45. Mayoux 1995.
46. Bates 1995; Hallward-Driemeier 2011b; Verheul, van Stel, and Thurik 2006; World Bank 2010d, World Bank 2007, World Bank 2010a.
47. Horrell and Krishnan 2007; Tiruneh and others 2001; Alene and others 2008; Gilbert, Sakala, and Benson 2002; Kinkingninhoun-Médagbé and others 2010; Mook 1976; Oladeebo and Fajuyigbe 2007; Saito, Mekonnen, and Spurling 1994; Vargas Hill and Vigneri 2009; Aly and Shields 2010; Hasnah and Coelli 2004; Udry and others 1995; Bindlish, Evenson, and Gbetibouo 1993; Akresh 2008; Goldstein and Udry 2008; Rahman 2010.
48. Udry and others 1995.
49. Hundley 2001.
50. Hallward-Driemeier 2011b.
51. Costa and Rijkers 2011.
52. Ñopo, Daza, and Ramos 2011.
53. Decimal figures are approximate; ILO 2010b.
54. ILO 2010b.
55. Anker 1998; Anker, Melkas, and Korten 2003; ILO 2010b.
56. Charles 1992.
57. Charles 1992.
58. Tzannatos 2006.
59. Becker 1965; Gronau 1977.
60. Goodin and others 2008.

61. Berniell and Sánchez-Páramo 2011b.
62. See, for instance, Ilahi (1999); Haddad and others (1995).
63. Berniell and Sánchez-Páramo 2011b.
64. Ilahi 2000; ILO 2010b; Blackden and Wodon 2006; United Nations 2010.
65. Ilahi 2000; ILO 2010b; Blackden and Wodon 2006; United Nations 2010; World Bank 2010a; Apps 2004; Bianchi 2000; Fisher and others 2007; Lachance-Grzela and Bouchard 2010.
66. Berniell and Sánchez-Páramo 2011b.
67. Berniell and Sánchez-Páramo 2011b.
68. Berniell and Sánchez-Páramo 2011b.
69. Bittman and others 2003.
70. Badgett and Folbre 1999; Elson 1994; Folbre 2006.
71. Hochschild and Machung 1989; Hochschild 1997.
72. Berniell and Sánchez-Páramo 2011b.
73. European Labor Force Survey 2001.
74. OECD 2007; Ronde 2008.
75. In contrast, Blank (1989) and Farber (2001) conclude from evidence on labor market transitions in the United States that part-time and temporary work are often part of the transition out of unemployment, leading to regular full-time employment in the future. See also Miller and Mulvey (1997); O'Reilly and Bothfeld (2002).
76. Bardasi and Gornick 2008; Manning and Petrongolo 2008.
77. Bertrand, Goldin, and Katz 2010; Goldin and Katz 2008; Wilde, Batchelder, and Ellwood 2010.
78. Berniell and Sánchez-Páramo 2011b.
79. Bosch and Maloney 2010.
80. Posadas and Smitz 2011.
81. Ilahi and Jafarey 1999; Ilahi and Grimard 2000; Katz 1995; Kennedy and Cogill 1988; Khandker 1988; Skoufias 1993.
82. Rijkers 2011.
83. Attanasio and Vera-Hernandez (2004) for Colombia; Baker, Gruber, and Milligan (2008) for Canada; Berlinski and Galiani (2007) for Argentina; Jeumotte (2003) for the Organisation for Economic Co-operation and Development; Havnes and Mogstad (2009) for Norway; Quisumbing, Hallman, and Ruel (2007) for Guatemala.
84. Heymann, Earle, and Hanchate 2004.
85. Anderson and Levine 2000; Blau and Currie 2006; Hallman and others 2005; Quisumbing, Hallman, and Ruel 2007.
86. Hein 2005. There is evidence that men are pulled into the home when women work outside (Bloemen and Stancanelli 2008; Fisher and others 2007; Newman 2002; Newman and Gertler 1994; Skoufias 1993), but in most cases, house and care responsibilities are transferred to older siblings (Heymann, Earle, and Hanchate 2004; Kamerman 2002).
87. Jacobsen 2011; Oropesa 1993.
88. Greenwood, Seshadri, and Yorukoglu 2005; Jones, Manuelli, and McGrattan 2003.
89. Manning 1964; Schwartz Cowan 1983; Robinson and Milkie 1997; Vanek 1973.
90. Cavalcanti and Tavares 2008; Coen-Pirani, León, and Lugauer 2010; Connelly and Kimmel 2010.
91. Ramey 2009.
92. See Ilahi and Grimard (2000) for evidence of positive effects; Costa and others (2009); Koolwal and van de Walle (2010); and Lokshin and Yemtsov (2005) for evidence of no effects.
93. Costa and others 2009; Dinkelman 2011; Grogan and Sadanand 2009; Jacobsen 2011.
94. Duchène 2011; Peters 2001.
95. World Bank 2005.
96. Khandker, Bakht, and Koolwal 2006.
97. Boeri Del Boca, and Pissarides 2005; O'Reilly and Fagan 1998; OECD 2007.
98. Corporate Leadership Council 2008.
99. Bosch and Maloney 2010.
100. Contreras and Plaza 2010; Fernández 2007a; Fortin 2005; Burda, Hamermesh, and Weil 2007; Nicodemo and Waldmann 2009.
101. Fafchamps and Quisumbing 1999.
102. Cunningham 2001.
103. Berniell and Sánchez-Páramo 2011a; Fortin 2005.
104. Booth and van Ours 2008, Booth and van Ours 2009; Booth and van Ours 2010.
105. López Bóo, Madrigal, and Pagés 2009.
106. Fernández, Fogli, and Olivetti 2004; Fogli and Veldkamp, forthcoming.
107. Fernández 2007b.
108. Bennhold 2010.
109. The discussion in this section has benefited significantly from insights provided in Bardasi (2011) and Croppenstedt, Goldstein, and Rosas (2011).
110. Deere and León 2003.
111. For list of included countries, see note 36.
112. FAO 2011.
113. Udry 1996.
114. Quisumbing, Estudillo, and Otsuka 2004.
115. Deere 2003.
116. Agarwal 1994; Deere 2003; Kevane and Gray 1999.
117. Brush 1992; Carter and Cannon 1992; Carter 2000.
118. These countries are Bulgaria, Ghana, Guatemala, Indonesia, Malawi, Nepal, Panama, and Vietnam.
119. Aidis and others 2007; Muravyevy, Talavera, and Schäfer 2009.
120. World Bank 2010d.
121. Hallward-Driemeier 2011b.

122. Buvinic and Berger 1994.
123. Akoten, Sawada, and Otsuka 2006.
124. Diagne, Zeller, and Sharma 2000; Fletschnner 2008.
125. Daley-Harris 2009.
126. Banerjee and others 2010.
127. Gilbert, Sakala, and Benson 2002; Moock 1976; Peterman 2010.
128. FAO 2011.
129. Due and Gladwin 1991; SOAS and others 2008.
130. Dolan 2001; Due and Gladwin 1991.
131. von Bülow and Sørensen 1993; Dolan 2001; Katz 1995; Maertens and Swinnen 2009; Porter and Phillips-Howard 1997; Raynolds 2001.
132. Katz 1995.
133. Eaton and Shepherd 2001; Maertens and Swinnen 2009; Porter and Phillips-Howard 1997.
134. Hamilton and Fischer 2003.
135. Fafchamps 1992; Fafchamps 2003; Porter and Phillips-Howard 1997.
136. Porter and Phillips-Howard 1997.
137. It also has a positive effect on labor force participation and investment in housing quality, especially in urban areas. Besley (1995) and Goldstein and Udry (2008) for Ghana; Banerjee, Gertler, and Ghatak (2002) for India; Do and Iyer (2008) for Vietnam; Galiani and Scharrodsky (2010) for Argentina; Field (2007) and Antle and others (2003) for Peru; and De Laiglesia (2005) for Nicaragua.
138. De Laiglesia 2005.
139. European Commission 2008.
140. Demirgüç-Kunt, Klapper, and Panos 2010; Hallward-Driemeier 2011b; Gajigo and Hallward-Driemeier 2011.
141. Banerjee and others 2010.
142. Dupas and Robinson 2009.
143. Bardasi 2011.
144. Croppenstedt, Goldstein, and Rosas 2011.
145. Un Millennium Project 2005.
146. Alesina, Lotti, and Mistrulli 2008; Deere and León 2001; Muravyevy, Talavera, and Schäfer 2009.
147. Muravyevy, Talavera, and Schäfer 2009.
148. Alesina, Lotti, and Mistrulli 2008.
149. Agarwal 1994.
150. Deere and Doss 2006.
151. UN-Habitat 2007.
152. Quisumbing 1994; Fafchamps and Quisumbing 2005.
153. Deere and León 2001.
154. Deere and León 2001.
155. Srivastava and Srivastava 2009.
156. McCarter 2006.
157. Berger 1989; Almeyda 1996.
158. Frank 2008.
159. Due and Gladwin 1991.
160. Deere and León 2001.
161. Udry and others 1995; Udry 1996.
162. Fletschnner 2008.
163. Kumase, Bisseleua, and Klasen 2010; Quisumbing, Payongayong, and Otsuka 2004.
164. United Nations Department of Economic and Social Affairs 2009.
165. Holzer and Neumark 2000.
166. Gornick and Jacobs 1998; OECD 1993; Schmidt 1993.
167. Anghel, de la Rica, and Dolado 2011.
168. Fernández 2007b.
169. Jensen 2010.
170. Kotiranta, Kovalainen, and Rouvinen 2010.
171. Cunningham and Maloney 2000.
172. Aterido and Hallward-Driemeier 2009.
173. Doss 2001; Crowley and others 2005.
174. Harriss-White 1998.
175. Schelling 1971.
176. England and others 2007.
177. Booth and Leigh 2010.
178. FAO 2008; FAO 2011.
179. Government of Viet Nam 2000.
180. World Bank and International Food Policy Research Institute 2010.
181. World Bank and International Food Policy Research Institute 2010.
182. World Bank and International Food Policy Research Institute 2010.
183. Meinen-Dick and others 2010.
184. Hertz and others 2009.
185. Williams 2003.
186. Hertz and others 2009.
187. Kelly and Breslin 2010.
188. World Bank 2010c.
189. Blanchard and Landier 2002; Cahuc and Postel-Vinay 2002; de la Rica 2004; Saint Paul 1996.
190. ILO 2010d.
191. Kanter 1977.
192. Fernandez and Sosa 2005.
193. Reskin and Bielby 2005.
194. Petersen and Saporta 2004.
195. Barnett, Baron, and Stuart 2000.
196. Reskin and McBrier 2000.
197. Browne, Tigges, and Press 2001.
198. Kanter 1977.
199. Bettio and Verashchagina 2009.
200. FAO 2011.
201. Cuberes and Teignier Baqué 2011.
202. Hurst and others 2011.
203. McKinsey & Company Inc. 2007.

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