How Markets Empower Women
Innovation and Market Participation Transform Women’s Lives for the Better
By Chelsea Follett

EXECUTIVE SUMMARY

Over the last 200 years, economic progress has helped to bring about both dramatically better standards of living and the extension of individual dignity to women in the developed world. Today the same story of market-driven empowerment is repeating itself in developing countries.

Competitive markets empower women in at least two interrelated ways. First, market-driven technological and scientific innovations disproportionately benefit women. Timesaving household devices, for example, help women in particular because they typically perform the majority of housework. Healthcare advances reduce maternal and infant mortality rates, allowing for smaller family sizes and expansion of women's life options. Second, labor market participation offers women economic independence and increased bargaining power in society. Factory work, despite its poor reputation, has proven particularly important in that regard.

In these ways, markets heighten women’s material standard of living and foster cultural change. Markets promote individual empowerment, reducing sexism and other forms of collective prejudice.

Women's empowerment in many developing countries is in its early phases, but the right policies can set women everywhere on a path toward the same prosperity and freedom enjoyed by women in today’s advanced countries.

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INTRODUCTION

Women’s empowerment and gender equality have become mainstream aspects of international development discourse. Markets help achieve those goals. Markets played a vital role in empowering the women of the West historically and continue to empower increasing numbers of women around the world today.

A review of the development literature suggests that “gender inequality declines as poverty declines, so the condition of women improves more than that of men with development.” In other words, women stand to gain more from prosperity than men.

Markets empower women in at least two interrelated ways. First, markets have produced timesaving and health-related innovations that have disproportionately benefited women. Second, labor market participation offers women economic independence and heightened bargaining power. These modes of empowerment reinforce each other.

Labor-saving innovations shifted the traditionally female burden of housework onto machines, freeing women’s time. Medical advances provided by free enterprise have lengthened women’s lives and increased their children’s likelihood of survival, allowing for smaller family sizes. As a result, women have more time to pursue their ambitions: more life years, and more years for activities other than childrearing. They also have more time for leisure, making their lives more pleasant.

Labor market participation, in which firms compete for women’s labor, allows women to accumulate money and increase their bargaining power both in society and in their households. Such participation also speeds economic growth and innovation in a virtuous cycle by creating a larger labor force.

Traditionally, the coercive power of the state, being primarily an expression of male preferences, often obstructed women’s labor market participation, limiting their activities to prescribed roles. Today, a growing number of women are free to make their own choices regarding family and career.

INNOVATION

Market-driven innovations have had a positive effect on women’s lives. Medical innovations, and health improvements financed by the unprecedented prosperity generated by free enterprise and industrialization, have improved women’s overall health, including life expectancy, and impacted their fertility. Labor-saving technology has lessened women’s time spent doing household chores, such as cooking and laundry. Positive change is not limited to the past but is ongoing in developing countries today.

Market-Driven Health Improvements

Living conditions remained remarkably constant throughout most of history: poverty was ubiquitous. Then, around 200 years ago, economic growth started to accelerate, first in Great Britain and the Netherlands, then the rest of Western Europe and North America, and finally the rest of the world.

Markets globalized in the 19th century, and the Industrial Revolution took productivity to new heights, causing the acceleration in economic growth and ultimately leading to widespread prosperity.

Similarly, human life expectancy—arguably the best overall measure of health—remained relatively flat throughout history until the late 1800s, when it began to rise. This “health transition” started in Europe and North America in the 1870s, and then spread to the rest of the world.

These striking improvements in income and health are related. Ample literature shows that, on average, people in wealthier countries outlive those in poorer countries, a relationship known as the Preston curve. While the strong correlation does not necessarily prove that higher income causes better health, it does show that “income must be important in some ways and at some times” to the improvement of health, according to Nobel Prize-winning economist Angus Deaton.

As income grows, it pays for improved diets, housing, sanitation, and medicine, all of which affect health. Deaton attributes the rise
Health advances that the market helped enable have benefited women even more than men.

Women’s Health and Fertility in Historical Perspective. Health advances that the market helped enable have benefited women even more than men. Consider the history of women’s health.

The average hunter-gatherer woman probably had about four children, with typical intervals of four years between each child. That represents low fertility by the standards of the poorest countries today; prehistoric women’s high levels of physical exertion likely decreased the probability of conception. Paleopathologists estimate about 20 percent of children died before their first birthday. “Life expectancy at birth among hunter-gatherers was 20–30 years depending on local conditions,” according to Deaton.

After agriculture’s invention, many people stopped living nomadically and built permanent settlements. Quality of life may have deteriorated for women, who went through more childbirths (which were dangerous) and saw more of their children die than their ancestors did because permanent settlements without proper waste disposal are a breeding ground for disease.

By the year 1800, the typical U.S. woman bore seven children. On average, only four would survive to see their fifth birthday. The other three typically died from ailments that are easily preventable or curable today.

Yet by the 20th century women outlived men. As Figure 1 shows, the average number of a woman’s children that she had to bury fell from three in 1800 to two in 1850 and one in 1900.

The average U.S. woman today has two children and sees both survive to adulthood. Most families today have fewer children in part because they are confident that every child they bring into the world will live.

Not only do women have fewer and healthier children, but childbirth has become safer for mothers. Data for Sweden and Finland dating back to 1751 paint a grim picture: around 1,000 maternal deaths for every 100,000 births (see Figure 2). If a woman gave birth seven times, that entailed a 7 percent chance of her death in childbirth. At the time, the British colonies that would become the United States were poorer than Sweden and Finland and probably had an even higher maternal mortality rate.

In 1900, the U.S. rate of maternal death in childbirth was more than 800 per 100,000

...
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Births. Steven Pinker of Harvard University has noted, “for an American woman, being pregnant a century ago was almost as dangerous as having breast cancer today.” After a brief spike in 1918 during the practice of questionable medical techniques, the rate plummeted. “The reduction in maternal mortality in twentieth century America is one reason why women’s life expectancy has risen faster than men’s,” according to Deaton. Today, U.S. women rarely die in the delivery room.

As Figure 3 shows, a typical 20-year-old woman in the United States today can expect to live for more than 60 additional years. That is about 18 more years of life than a 20-year-old U.S. woman could expect two centuries ago.

The same progress is now unfolding in developing countries.

**WOMEN’S HEALTH AND FERTILITY IN DEVELOPING COUNTRIES.** Practically everywhere, women outlive men and the number of children per woman has decreased. As people escape poverty throughout the world, their children are more likely to survive, allowing for smaller families—a phenomenon called the fertility transition.

It is almost unheard of for a country to maintain a high fertility rate after it passes about $5,000 in per person annual income. “The average Bangladeshi woman can now expect to have about the same number of children as the average Frenchwoman,” observed *The Economist* in 2016, and even in Africa, the poorest continent, fertility rates are falling. In the very poorest countries, women often have more children than they say they want,
Reduction in maternal mortality in twentieth-century America is one reason why women's life expectancy has risen faster than men's.

Deaths in childbirth have become rare practically everywhere on Earth, even in developing countries. Yet, in the developed world, the deaths of women in childbirth have become rare. As can be seen in Figure 2, in a few decades Malaysia made the same progress against deaths in childbirth that the currently rich countries took multiple centuries to achieve. Malaysia's case is not unusual. That India today has higher life expectancy than Scotland in 1945—in spite of per capita income that Britain had achieved as early as 1860—is a testament to the power of knowledge to short-circuit history, argues Deaton. 

In sum, the unprecedented rise in prosperity, medical understanding, and innovation over the last two centuries has bettered women's health dramatically and continues to do so in poor countries today. Innovations created in rich countries are being adopted by poor countries, enabling them to achieve better health outcomes more quickly.
In the United States, from the mid-1960s to 2008, women more than halved the amount of time they spent on food preparation.

Cooking: Full-Time Job to Hobby

As with medical advancements, technological innovations have further advanced opportunities for today’s women. Cooking has traditionally fallen to women, and so timesaving and laborsaving kitchen devices primarily benefit women. Over time, markets have brought about and lowered the cost of such innovations as microwaves, convection ovens, ranges, grills, toasters, blenders, food processors, slow cookers, and other laborsaving kitchen devices. Markets have also given more women more access to ready-made foodstuffs, so each dish does not have to be prepared entirely from scratch. Thanks to such advancements, cooking has changed from a necessary, labor-intensive task to an optional and recreational activity in rich countries, and that transition is ongoing in the developing countries.

WOMEN’S ESCAPE FROM THE KITCHEN IN THE UNITED STATES. “In 1900 a typical American household of the middle class would spend 44 hours [a week] in food preparation,” according to economist Stanley Lebergott of Wesleyan University. Most of that work fell to women. In other words, back in the days of churning one’s own butter and baking one’s own bread, food preparation consumed as much time as a full-time job. In addition to cooking, women were also often responsible for cleaning the home, washing laundry and hanging it out to dry, sewing and mending.

Figure 3
A 20-year-old U.S. woman’s average years of remaining life, 1795–2013

Clothes, and tending to children.

In 1910, Lebergott estimates that U.S. households spent approximately six hours daily cooking meals, including cleanup. By the mid-1960s, that had fallen to 1.5 hours.\textsuperscript{29} By 2008, the average low-income American spent just over an hour on food preparation each day and the average high-income American spent slightly less than an hour daily.\textsuperscript{30} Disaggregating the data by gender reveals even more progress for women. In the United States, from the mid-1960s to 2008, women more than halved the amount of time they spent on food preparation, whereas men nearly doubled time spent on that activity, as household labor distributions became more equitable between genders.

Mass production of everyday foodstuffs assisted this transformation of women’s time. In 1890, 90 percent of American women baked their own bread.\textsuperscript{31} Missouri’s Chillicothe Baking Company started offering the luxury of factory-baked, \textit{presliced} bread in 1928, and other companies soon offered competing products. By 1965, 78 out of every 100 pounds of flour a U.S. woman brought into her kitchen came in the form of baked bread or some other ready-prepared good.\textsuperscript{32} Today, baking one’s own bread in the United States is a hobby, rather than a necessary routine.

Markets have even produced grocery delivery services that bring food to one’s door with the tap of a smartphone application. Market processes also lowered the cost of dining out, and today Americans spend more money dining out than eating in.\textsuperscript{33}

\textbf{ONGOING ESCAPE FROM THE KITCHEN IN DEVELOPING COUNTRIES.} The liberation of women from hours upon hours in the kitchen is ongoing, as technological devices and mass-produced goods spread to new parts of the globe. Worldwide, as many as 55 percent of households still cook entirely from raw ingredients at least once a week. In China, that number is as high as 71 percent.\textsuperscript{34} A 2015 survey found that average hours spent cooking are as high as 13.2 hours per week in India, and 8.3 hours in Indonesia, compared to 5.9 hours in the United States.\textsuperscript{35} That is only among those who regularly cook. If a higher percentage of Indians than Americans engage in that activity, it is likely that the actual disparity between the two countries’ average hours devoted to food preparation is larger.

While a gap in time spent on food preparation remains between rich and poor countries, today even in India—the poorest country surveyed, and the one with the highest reported average food preparation hours—women devote almost 31 fewer hours to food preparation per week than U.S. women did in 1900. Even allowing for compatibility problems in comparing those figures (the estimate for 1900 included cleanup time, whereas the Indian women surveyed in 2015 were not asked to include cleanup time and so may have excluded time spent on cleanup in their answers), the sheer size of this difference suggests some degree of improvement. A separate survey of Chinese households found that average time spent on food preparation by women declined from more than 5 hours per day in 1989 to 1.2 hours in 2011 (see Figure 4).

Much room for improvement remains. In 2017, only 0.5 percent of Chinese households and 1.8 percent of Indian households had a dishwasher, compared to 71 percent of U.S. households.\textsuperscript{36} In 2017, 42 percent of Chinese households and just 17 percent of Indian households had a microwave, compared to 96 percent of U.S. households. Euromonitor’s Passport Global Market Information Database holds that only 32 percent of Indian households had a refrigerator in 2017.\textsuperscript{37}

As prosperity spreads and poverty declines, kitchen gadgets and ready-made goods will free up more hours of women’s food preparation time around the world. Other innovations will similarly free women from other time-consuming tasks, such as laundry.

\textbf{Washing: a Full Day to an Hour a Week}

Economist Ha-Joon Chang at the University of Cambridge has argued that “the laundry machine has changed the world more than the internet has,” and for women, that may be...
When there is no market incentive to fulfill human needs, it is often women’s needs that are forgotten first.

Market innovations ranging from the invention of detergent to ever-more-helpful laundry and drying machines transformed the chore of laundry from a dreadful undertaking to a minor inconvenience in the rich countries. Today, that story is ongoing throughout the developing world.

**LIBERATION FROM LAUNDRY IN HISTORICAL PERSPECTIVE.** The effect of the washing machine’s arrival in the rich countries as an “engine of liberation” for women, the traditional doers of housework, has been well-documented. Writer Bill Bryson described the dismal task of laundry in 19th-century England in his book *At Home: A Short History of Private Life*:

> Because there were no detergents before the 1850s, most laundry loads had to be soaked in soapy water or lye for hours, then pounded and scrubbed with vigor, boiled for an hour or more, rinsed repeatedly, wrung out by hand or (after about 1850) fed through a roller, and carried outside to be [hung to dry]... Linen was often steeped in stale urine, or a dilute solution of poultry dung, as this had a bleaching effect, but the resulting smell required additional vigorous rinsing, usually in some kind of herbal extract. Starching was such a big job that it was often left to the following day. Ironing was another massive and dauntingly separate task.

Bryson also notes that each different color of fabric had to be washed separately with distinct chemical compounds; that on laundry day someone had to get up as early as 3 a.m. to get the hot water going; and that in households with servants, laundrymaids were the lowest-ranked, with laundering sometimes doled out as a punishment to other servants.

The situation in the United States was
In 1981, less than 10 percent of urban Chinese households had a washing machine. By 2011, 97.05 percent did.

Laundry machines also became more widespread in many of the countries of Europe around that time. Hans Rosling of the Karolinska Institute described his grandmother’s excitement when his family first bought a washing machine in the early 1950s in Sweden:

Throughout her life she had been heating water with firewood, and she had hand-washed laundry for seven children. And now she was going to watch electricity do that work. . . . Grandma pushed the button, and she said, “Oh, fantastic! I want to see this! Give me a chair! Give me a chair! I want to see it,” and she sat down in front of the machine, and she watched the entire washing program. She was mesmerized. To my grandmother, the washing machine was a miracle.

That miracle quickly became commonplace in rich countries such as Sweden and the United States. Where markets were unable to operate, there were no incentives to provide women with laundry machines and other timesaving devices, and so progress was slower. Journalist Slavenka Drakulić noted that an American visiting the Communist Bloc in the 1980s would be aghast to find most women still doing laundry the way they had in the United States 50 years prior, without washing machines. Throughout the Communist Bloc countries, women often soaked clothes in metal tubs, scrubbed them bent over the tubs’ rims using washboards, then boiled them on stovetops, stirring the clothes with long spoons. The elaborate ritual took up a full day each week and left their hands swollen, cracked, and covered in sores. The male economic planners did not even sell rubber gloves that would have protected the women’s skin. Shortages of laundry detergent were also endemic throughout the communist countries. When there is no market incentive to fulfill human needs, it is often women’s needs that are forgotten first.

Today, Americans spend less than two hours a week on the chore, and a greater share of poor U.S. households own laundry machines than did the average of all U.S. households in the 1970s. While laundry machines are far from the only reason women’s options have multiplied in the West, they helped. “Without the washing machine,” claims Chang, “the scale of change in the role of women in society and in family dynamics would not have been nearly as dramatic.”

ONGOING LIBERATION FROM LAUNDRY IN DEVELOPING COUNTRIES. Thanks to economic growth and rapidly declining global poverty, more women enjoy ownership of, or access to, laundry machines. One 2013 study estimated 46.9 percent of households worldwide owned a laundry machine in 2010, while a 2016 survey estimated global laundry machine use at 69 percent, and the market for laundry machines is projected to continue growing.

Consider China, home to the greatest escape from poverty of all time, when economic liberalization freed hundreds of millions of Chinese from penury. China’s economy (measured in 2014 U.S. dollars and adjusted for differences in purchasing power) grew more than 30-fold between 1978, when the country abandoned communist economic policies, and 2016.

In 1981, less than 10 percent of urban Chinese households had a washing machine. By 2011, 97.05 percent did. In 1985, less than 5 percent of rural Chinese households had a washing machine. By 2011, 62.57 percent did. This progress is captured in Figure 5. Not only has China seen tremendous progress, but the gap between rural and urban areas has narrowed. In 2016, 89.4 percent of all Chinese households had a washing machine, up from 60.4 percent in 2002.

Let us turn to India, where liberalizing economic reforms began in 1992. From 1992
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To 2016, India’s economy grew four-fold. In 2016, 11 percent of Indian households owned a washing machine. Urban households are better off, with ownership now topping 20 percent in the most populous cities. As India’s economy continues to grow and poverty further declines, more women will be able to hand over the chore of laundry to machines.

Market competition and the profit motive incentivized the washing machine’s invention and its ongoing marketing to new customers in developing countries. Bendix Home Appliances patented the first automatic washing machine for domestic use in 1937. As a Bendix ad put it in 1950, “washday slavery became obsolete in just 13 years” for American women. In 2007, Panasonic launched laundry machines with a sterilization mechanism using silver ions designed specifically to address Chinese consumers’ concerns about undergarment bacteria and successfully increased its market share in the country.

Washing machine ownership is rising in many developing countries, from Brazil to Vietnam (see Figure 6). Unfortunately, Africa remains the continent with the worst record on economic freedom, as well as the poorest continent with the least access to timesaving technologies. Even in Africa, however, markets are now slowly helping to alleviate poverty. Laundry machine market penetration remains low (less than half of households, according to one 2016 survey), so considerable room for progress remains.

Today, laundry machines are doing for women throughout the developing world what they did for women in the West half a century ago: freeing their time and labor from a grueling and relentless chore. It is up to women how they spend the time freed up by innovation.

Figure 5
Average ownership of washing machines in Chinese households, 1981–2011

Factory work has proven particularly important for women’s labor force integration both historically and today in developing countries.

By Freeing Women’s Time, Innovation Has Expanded Their Options

Women do not invariably choose to devote the “freed” time discussed above to leisure or pursuits outside the household. They may spend the time in home production as before, but thanks to efficiency-enhancing innovations, achieve higher household living standards as a result.

Calculations by economist Valerie Ramey of the University of California at San Diego suggest that from 1900 to the mid-1960s, women’s total time devoted to housework fell by only 6 hours per week rather than by 42 as Lebergott claims. Still, Ramey acknowledges the positive trend and concedes that for similar housework hours, women were able to achieve a higher standard of living. In the preindustrial and early industrial eras, having well-prepared meals, “clean clothes, clean dishes, a clean house, and well-cared for children was just another luxury the poor could not afford,” because women without servants lacked the time and physical capacity to perform all the necessary work, claims Ramey.

In other words, as historian Ruth Cowan of the University of Pennsylvania notes, “modern technology enabled the American housewife of 1950 to produce singlehandedly what her counterpart of 1850 needed a staff of three to four to produce: a middle-class standard of health and cleanliness for herself, her spouse, and her children.” In the preindustrial and early industrial eras, having well-prepared meals, “clean clothes, clean dishes, a clean house, and well-cared for children was just another luxury the poor could not afford,” because women without servants lacked the time and physical capacity to perform all the necessary work, claims Ramey.

Importantly, by liberating women’s time through medical and technological innovations, markets expanded women’s options. Whether women choose to spend the resulting freed time in home production (to better effect), leisure, paid work, or other pursuits, markets have made them better off than before.

Figure 6
Washing machine ownership, 1977-2017

The change in gendered division of labor also merits mention. As shown in Figure 7, men’s total housework hours in the United States have risen steadily since 1900, as women’s housework hours have declined. While the primary mechanism by which markets have freed women’s time is through innovation, markets may also have aided cultural change, thus leading to more equitable divisions of household labor. One driving force behind this shift may be women’s greater bargaining power within households as a result of the option of labor market participation.

By freeing up women’s time, a limited and valuable resource, market-driven innovations enabled women to participate in the labor force. And in developing countries where labor-saving devices are not yet widespread, an incredible amount of latent human potential still remains, waiting to be unleashed.

**Labor Market Participation**

As with innovations, labor market participation has also had a positive effect on women’s material well-being and social equality. Despite its poor reputation, factory work has proven particularly important for women’s labor force integration both historically and today in developing countries.

Consider the historical effects of factory work on women in the United States in the 19th century, as well as the effects of factory work on women today in developing countries such as China and Bangladesh.

**19th Century Factories in the United States**

Women’s economic involvement in the United States increased steadily from the American Revolution through the 19th century. “Women . . . experienced increasing . . .

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**Figure 7**

*Average weekly hours in home production, United States, 1900–2011*

autonomy in the sense of freedom from utter dependence on particular men” over this time period as more and more women took on paid work and married women gained the legal right to separate estates, according to one study of a Southern factory city. However, it was the greater industrialization of the North that heralded the first entry en masse of women into the labor force.

Even the wealthy United States had “sweatshops” once. During the Industrial Revolution, young women fled the impoverished countryside to work at factories in cities where they could earn and spend their own money. Most ceased work after marriage, but for a time they enjoyed a level of independence that disturbed Victorian sensibilities.

Many complained that factory conditions were too dangerous for women. Others feared living apart from the protection of a father or husband would ruin women’s reputations, because even if they did not actually transgress the mores of the day, they still risked the appearance of impropriety. In 1840, the Boston Quarterly Review’s editor remarked, “She has worked in a factory, is sufficient to damn to infamy the most worthy and virtuous girl.”

Female factory workers did not all consider themselves victims of “capitalist exploitation” and insufficient male protection. Such remarks about infamy and mistreatment prompted this response from a textile mill operative named Harriet Farley in Lowell, Massachusetts:

We are under restraints, but they are voluntarily assumed; and we are at liberty to withdraw from them, whenever they become galling or irksome. . . . [W]e are [here] to get money, as much of it and as fast as we can. . . . It is these wages which, in spite of toil, restraint, discomfort, and prejudice, have drawn so many . . . girls to . . . factories. . . . [O]ne of the most lucrative female employments should [not] be rejected because it is toilsome, or because some people are prejudiced against it. Yankee girls have too much independence for that.

Farley was far from alone in her sentiments. The “joy of relative independence” was a recurrent theme in millworkers’ accounts, according to historian Alice Kessler-Harris of Columbia University. “As important as the feeling of having cash in one’s pocket was the sense of choice that many women experienced for the first time,” she notes.

**DIVERSE MOTIVES AND ACHIEVEMENTS.** Those who imagine Industrial Revolution factory work in the United States as a dark chapter in history might benefit from reading the words of those who lived through it. Farm to Factory: Women’s Letters, 1830–1860, provides a collection of first-hand accounts revealing a more nuanced reality.

The letters do indeed reveal abject misery, but that misery comes from 19th-century farm life. To many women, factory work was an escape from backbreaking agricultural labor. Consider this excerpt from a letter a young woman on a New Hampshire farm wrote to her urban factory-worker sister in 1845 (the spelling and punctuation are modernized for readability):

Between my housework and dairying, spinning, weaving and raking hay I find but little time to write. . . . This morning I fainted away and had to lie on the shed floor fifteen or twenty minutes for any comfort before I could get to bed. And to pay for it tomorrow I have got to wash [the laundry], churn [butter], bake [bread] and make a cheese and go . . . blackberrying [blackberry-picking].

Compared to the unceasing labor of the farm, even harsh factory conditions can represent a positive change. By contrast, urban living often offered somewhat better living conditions. Far more women sought factory work than there were factory jobs available.

A closer look at the letters in the book reveals the incredibly varied lives of the “factory girls.” For example, with a substantial inheritance, Delia Page was never in need of money.
Improvements in household production technology in the mid-20th century allowed many more married women to enter the workforce instead of tending the home as a full-time job.

But at age 18, Delia decided to take up work in a factory in New Hampshire despite the risks—a mill in nearby Massachusetts had collapsed in a fire that killed 88 people and seriously injured more than a hundred others. Delia’s foster family wrote to her about the tragedy and their fears for her well-being. But she defiantly continued factory work for several years.

What led well-to-do Delia to seek out factory work in spite of the danger and long hours? The answer is social independence. In their letters, her foster family repeatedly urged her to break off what they considered a scandalous affair, implored her to attend church, and subtly suggested she come home. But by working in a factory, Delia was free to live on her own terms—to her, that was worth it.

The unique story of Emeline Larcom also emerges from the letters. Emeline’s background differed greatly from Delia’s. Her father died at sea and her mother, widowed with 12 children, struggled to support the family. Emeline and three of her sisters found gainful employment at a factory and sent money home to support their mother and other siblings. Emeline, the oldest of the four Larcom factory girls, essentially raised the other three. One of them, Lucy, went on to become a noted poet, professor, and abolitionist. Her own memoirs cast mill work in a positive light.

Of the diverse personalities captured in the letters, only one openly despises her work in the mill. Mary Paul was a restless spirit. She moved from town to town, sometimes working in factories, sometimes trying her hand at other forms of employment such as tailoring, but she never stayed anywhere for long. She loathed factory work, but it enabled her to save up enough money to pursue her dream: buying entry into a Utopian agricultural community that operated on proto-socialist principles.

She enjoyed living at the “North American Phalanx” and working only two to six hours a day while it lasted. But as is common with such communities, it ran into money problems, exacerbated by a barn fire, and she was forced to leave. She eventually settled down, married a shopkeeper, and—her letters seem to hint—became involved in the early temperance movement to ban alcohol, another ultimately ill-fated venture.

Delia, Emeline, and Mary provide a glimpse of the different ways that factory work affected women during the Industrial Revolution. Wealthy Delia gained the social independence she sought, and Emeline was able to support her family. Even Mary, who detested factories, was ultimately only able to chase her ill-advised dream through factory work.

**INCREASED EARNING AND BARGAINING POWER.** In addition to helping women achieve their personal goals, factory work also gave women the economic power to lobby for broader social changes.

By midcentury, women in the industrialized North began to mobilize for women's reform, including equal property rights and custody of children, according to historian Robert Dinkin of California State University at Fresno. This prompted one male commentator to grouse in 1852 that “our women Americans” should be “angels, not agitators.” Some key reforms, such as the wave of laws granting married women more equal property rights, were not a direct result of women’s agitation. “Positive change in the status of women can occur when no organized feminism is present,” as Rutgers University historian Suzanne Lebsock put it. However, in the United States and Britain, working-class women played a key role in the suffrage movement.

By contrast, the women leaders of the anti-reform countermovement were generally housewives. Many of them felt threatened by the newfound purchasing power of factory workers. Sarah Hale, editor of *Godey’s Lady’s Book*, the most influential mainstream women’s magazine of the day, insisted women should shun activism and bewailed the fact that factory women could afford the same clothes as the upper-class—even gold watches—thus creating a “problem of distinguishing the lady from the factory worker by dress alone.” Her panic over blurring social classes exemplifies how industrialization created widespread
material prosperity for the first time.

In the primarily agricultural economy of the South, women were less active in paid labor than their northern counterparts. Free women were not typically involved in the business aspect of plantations, with notable exceptions such as late 18th century indigo mogul Eliza Pinckney.\(^8\) As for enslaved women, the ability of slaves to earn money and buy personal property was mostly limited to urban areas. In 1860, about 6 percent of rural and 31 percent of urban slaves were “hired out,” often receiving a share of the wages earned.\(^8\) However, their property rights were profoundly restricted. The abolition of slavery in 1865 enabled many of the roughly 13 percent of U.S. women who had been slaves to engage in paid labor for the first time.\(^8\)

**Factories Helped Change Attitudes on Female Labor Force Participation.** Before the rise of the modern regulatory state, there typically were no written laws barring free women from entering occupations. However, sexist customary prohibitions were strong. Cultural attitudes thus served to limit women’s ability to pursue various professions.

Aided by the increased visibility of women mill workers, those attitudes later underwent a transformation. By the mid-19th century, even Southern newspapers openly advocated economic freedom for (white) women: “Now, what every woman, no less than every man, should have to depend upon, is an ability, after some fashion or other, to turn labor into money. She may not . . . exercise it, but everyone ought to possess it.”\(^9\) Editorials made explicit calls to widen the range of occupations open to female workers, ranging from postmasters to artists.

In 1840, one source alleged that only seven industries were widely available to women: teaching, running an inn or boardinghouse, typesetting, bookbinding, needlework, domestic service, and mill work. By 1883, around 300 occupations were open to women, ranging from “lady government officials” to beekeepers and wood engravers.\(^9\) There were about 30 practicing women lawyers, and even female physicians in the United States. Despite facing prejudice for their race as well as their gender, the first black female physician, Rebecca Lee Crumpler, earned her medical degree from New England Female Medical College in 1864, and the first black female lawyer, Charlotte E. Ray, graduated from Howard University School of Law in 1872.\(^9\)

New fields continued to open to women throughout the 20th century.\(^9\) Women’s labor force participation rose in part thanks to expanded opportunities. “Another factor was the greater acceptance of married women in the labor force,” claims Harvard University economist Claudia Goldin.\(^9\) But it was improvements in household production technology in the mid-20th century that allowed many more married women to enter the workforce instead of tending the home as a full-time job (see Figure 8). As shown in Figure 9, women’s home production time fell more sharply after 1966, as those technologies became more widely available, boosting labor market participation further. While not the only causes, the technological and medical gains freeing women’s time from home production and allowing for smaller family sizes played an outsized role in bringing women’s labor force participation in the United States up to its current level.

Though the Industrial Revolution is often vilified, it empowered many women to both achieve their personal goals and to effect social change, and it was an important first step toward increasing women’s socioeconomic mobility. The option of labor force participation empowers women by offering them the chance to earn money and attain economic independence.\(^9\) The potential earning power then translates into increased intrahousehold and societal bargaining power, lending more weight to women’s voices. The option of entering the labor force also strengthens the fallback position of women who choose not to engage in paid labor.

*Industrialization transformed not only women’s lives, but society, and ultimately brought about widely shared prosperity unimaginable in the preindustrial world.*
Today, throughout the developing world, factory work continues to serve as a path out of poverty.

The pace of industrial economic development has even been speeding up. In South Korea, Taiwan, Hong Kong, and Singapore, the process of moving from sweatshops to First World living standards took less than two generations, as opposed to a century in the United States. Such “sweatshop” factories are often primarily staffed by women.

Harriet Farley’s arguments still apply today. As long as work is “voluntarily assumed” and laborers maintain the “liberty to withdraw” from it, we should not reject a potential force for women’s empowerment in developing countries in an attempt to protect them.

“[A]sk the woman,” economic historian Deirdre McCloskey suggests, “if she would rather that the shoe company not make her the offer. . . . Look at the length of queue that forms when Nike opens a new plant in Indonesia. And ask her if she’d rather not have any market opportunities at all, and be left home instead entirely to her father or husband.”

Factories in Developing Countries Today

Today, throughout the developing world, factory work continues to serve as a path out of poverty and an escape from agricultural drudgery, with particular benefits for women seeking economic independence. There remain places “where sweatshops are a dream,” offering life-transforming wages.
agree that factories are a proven path to development.99 “The overwhelming mainstream view among economists is that the growth of this kind of employment is tremendous good news for the world’s poor,” as economist Paul Krugman put it.100

Industrialization helps women in particular: consider China and Bangladesh.

FACTORIES TODAY IN CHINA. China experienced the most remarkable advancement out of poverty of all time, partly thanks to a manufacturing boom following economic liberalization in the late 1970s and 1980s. Some fear this has led to widespread exploitation and sweatshop conditions.

“This simple narrative equating Western demand and Chinese suffering is appealing,” according to writer Leslie T. Chang. “But it’s also inaccurate and disrespectful.”101 “Chinese workers are not forced into factories because of our insatiable desire for iPods,” Chang explains.102 “They choose to leave their homes [in rural China] in order to earn money, to learn new skills and to see the world.”

She spent two years in China getting to know factory workers in order to make their stories known.103 “In the ongoing debate about globalization, what’s been missing is the voice of the workers themselves,” she says. “Certainly the factory conditions are really tough, and it’s nothing you or I would want to do, but from their perspective, where they’re coming from is much worse. . . . I just wanted to give that context of what’s going on in their minds, not what necessarily is going on in yours.”104

The book Chang published as a result of

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**Figure 9**

Average weekly hours spent in home production and market work among female prime-age workers, 1900–2012


“China’s suicide rate has declined more rapidly than any other country’s in recent years, falling from among the world’s highest rates in the 1990s, driven by sky-high rates among young rural women, to among the world’s lowest rates.”
The majority of China’s swelling new middle class are former economic migrants who did well in the cities and stayed. Her research, *Factory Girls: From Village to City in a Changing China*, presents an intimate picture of how globalization changed the lives of women in her ancestral country.\textsuperscript{105} The portraits that emerge of independent, ambitious young women contrast sharply with the widespread narrative of victimhood.

Women accounted for 70 percent of rural transplants to the factory city that Chang visited. They travel farther from home and stay longer in urban areas than their male counterparts. Women “are more likely to value migration for its life-changing possibilities” than men, because gender roles are less restrictive in cities than in the traditional countryside.\textsuperscript{106} Unlike in most countries, in China women have a higher suicide rate than men, and in rural areas they are two to five times more likely to kill themselves than in cities.\textsuperscript{107} Yet China’s suicide rate has declined more rapidly than any other country’s in recent years, falling from among the world’s highest rates in the 1990s, driven by sky-high rates among young rural women, to among the world’s lowest rates (see Figure 10).\textsuperscript{108} The World Health Organization attributes this progress partly to women gaining the option to leave the countryside to work in factory cities, and so improving their social and economic conditions.\textsuperscript{109} *The Telegraph’s* Yuan Ren ascribes the high rural suicide rate to harsh gender roles: “Even today, many rural women are treated like second class citizens by their own family, subordinate to their fathers, brothers and—once married—their husband and mother-in-law.”\textsuperscript{110} A 2010 study found that, whereas marriage has a protective effect against suicide in many countries, marriage triples suicide risk among young rural Chinese women.\textsuperscript{111} The author notes that “being married in rural Chinese culture usually … further limits [a woman’s] freedom” as a possible explanation for this.\textsuperscript{112}

**Figure 10**

Urbanization and decreasing suicide in China, 1992–2011

Escape from such gender roles helps explain why many women choose to migrate. Initially, Chinese society viewed factory work as dangerous and shameful to a woman’s reputation, echoing Victorian concerns for the Industrial Revolution’s factory girls. But over time, migration became a rite of passage for rural Chinese. Today, urban life affords factory workers—particularly women—freedom from rural areas’ more traditional, restrictive social norms. As The Economist put it, “Moving to the cities to work... has been the salvation of many rural young women, liberating them.”

In the city, Chang was surprised to find that social mobility was strong, with many assembly line women moving into administrative roles or other fields. Factory turnover was high, as women frequently switched jobs in search of better prospects. Compared to their Industrial Revolution predecessors, China’s factory girls enjoy more opportunities for economic mobility and long-term labor force participation. Chang observed that evening classes in business etiquette, English, or computer skills could catapult an ambitious woman into white-collar work. In fact, as China’s human capital and wages have soared, more workers have moved into the services sector, and many factories have relocated southward to poorer countries such as Bangladesh.

Urbanization not only offers escape from poverty, but also has the knock-on effect of improving migrants’ home villages. It demolishes the idea that being poor in the city is just as bad, if not worse, than being poor in the countryside. When Min, a handbag factory employee accustomed to modern city life, visited her family home in the countryside, she found herself faced with this scene:

Electricity was used sparingly to save money, and most dinners were eaten in near-darkness. There was no plumbing and no heating. In the wet chill of the Hubei winter, the whole family wore their coats and gloves indoors, and the cement walls and floors soaked up the cold like a sponge. If you sat too long, your toes went numb, and your fingers too.

Min made it her mission to modernize the farm home where she grew up. “Min walked through the house pointing out improvements she wanted: a hot-water dispenser, a washing machine, a walk of poured concrete across the muddy yard.” She told Chang she planned on eventually paying for the construction of an indoor bathroom and an electric hot-water heater so that her family might bathe in the winter without being cold.

Migrants like Min act as the chief source of village income by sending earnings home. Min and her older sister Guimin sent home more than double the amount of money the small family farm brought in through the sale of pigs and cotton. The money also gave the sisters a voice in family affairs, letting them insist that their younger sisters attend school longer than was usual for girls.

As Chang notes, most migrants never return permanently to the countryside. “The ones who do well will likely buy apartments and settle in their adopted cities; the others may eventually move to towns and cities near their home villages and set up stores, restaurants, and small businesses like hairdressing salons or tailoring shops.” Very few go back to farming. The majority of China’s swelling new middle class are former economic migrants who did well in the cities and stayed.

But urban life does more than simply raise a woman’s expectations regarding social status and influence. According to Chang, migration makes rural women more likely to seek equality in marriage. This is one way, in the factory towns of the south, young women “came to believe that they mattered, despite their humble origins.”

As economic opportunity has swept across China, it has brought a sense of self-worth. Chang notes the older and more rural Chinese she interviewed did not believe their stories were worth telling, but the young
The garment industry transformed the norm of purdah or seclusion (literally, ‘veil’) that traditionally prevented women from working beyond the home.

women in the city deemed themselves worthy subjects. Chang noted that “individualism was taking root.”

Thanks to economic liberalization, for the first time “there was an opportunity to leave your village and change your fate, to imagine a different life and make it real. . . . [Factory women] were concerned with their own destinies, and they made their own decisions.”

Globalization didn’t imprison them in sweatshops; it expanded their options.

FACTORIES TODAY IN BANGLADESH. The word “sweatshop” still conjures images of the tragic 2013 Rana Plaza garment factory building collapse in Bangladesh that resulted in more than a thousand deaths. In the wake of such disasters, many people in rich countries assume the compassionate response is to impose trade restrictions. But such a response would harm Bangladeshi garment workers, most of whom are women, by forcing them into far worse situations than factory work.

Social economist Naila Kabeer explored the “transformatory potential” of factories in her 2000 book, The Power to Choose. She interviewed 60 women in her native Bangladesh. The country is home to 18.4 million of the world’s poorest people and has strict gender norms.

“In my mother’s time,” one woman told Kabeer, “women had to tolerate more suffering because they did not have the means to become independent. [T]hey are better off now: . . . [T]hey can work and stand on their own feet. They have more freedom.”

For many years, government and non-governmental organizations tried unsuccessfully to promote female participation in Bangladesh’s labor force. “In the end, however, it took market forces, and the advent of an export-oriented garment industry, to achieve what a decade of government and non-government efforts had failed to do: to create a female labor force,” notes Kabeer.

The country industrialized rapidly, growing its number of export-oriented factories from a handful in the mid-1970s to around 700 by 1985. Today, approximately 80 percent of garment workers are female, according to the World Bank.

In 1985, Britain, France, and the United States all imposed quota limitations on clothing imports from Bangladesh in response to anti-sweatshop campaigns financed by labor unions in the rich countries. Within three months, two-thirds of Bangladeshi factories shuttered their gates and more than 100,000 women were thrown out of work.

The Bangladeshi General Secretary of National Garment Workers had this to say to the anti-sweatshop activists:

[N]ot buying Bangladeshi shirts isn’t going to help us, it will just take away people’s jobs. The shock tactics—such as the pictures I have seen from America of Bangladeshi shirts dripping with blood—should stop. . . . As workers, we give an emphatic “yes” to the campaign against quotas.

Britain and France removed their quotas in 1986, and Bangladesh’s garment industry has since expanded to thousands of factories employing millions. (The United States finally ended its apparel quota regime, which included Bangladeshi imports, in 2005, but still maintains import tariffs on many kinds of apparel). Growing protectionist sentiment in rich countries, aided by sensationalized accounts of working conditions in poor countries, could restrict Bangladesh’s growth.

Despite its poor reputation, Bangladeshi factory work has slashed extreme poverty and increased women’s educational attainment while lowering rates of child marriage. The share of Bangladeshi women married by age 18 has fallen from more than 73 percent in 1994 to 59 percent in 2014, and the average age of Bangladeshi brides at first marriage has risen from 16 in 1975 to 19 in 2013. As in China, in Bangladesh women commit suicide at higher rates than men, and the rural suicide rate is 17-fold higher than the urban suicide rate. An overview of the literature concluded that the unusually high suicide rate among young women
reflected forced marriages, lower social status of women, poverty, and high rates of violence against women. As with China, Bangladesh's suicide rate has declined as urbanization has increased. As women have left the countryside for factory work in cities, it has not only improved their personal situations, but also sparked broader cultural change toward more freedom for women.

"Now I feel I have rights," explained a factory woman whose earnings allowed her to escape her physically abusive spouse. "I can earn and survive." The country's women-dominated garment industry transformed the norm of purdah or seclusion (literally, "veil") that traditionally prevented women from working beyond the home, walking outside unaccompanied by a male guardian, or even speaking in the presence of unrelated men. Many Bangladeshi women now interpret purdah to simply mean modesty instead of social and economic segregation. In Kabeer's words, factory work let women "renegotiate the boundaries of permissible behavior." Today, in Dhaka and other industrial cities, women walk outside and interact with unrelated men.

Kabeer found "the decision to take up factory work was largely initiated by the women themselves, often in the face of considerable resistance from other family members." Some men beat their wives for seeking factory work. Dismaying, a 2011 survey showed 65 percent of Bangladeshi wives have experienced domestic violence.

Several men Kabeer interviewed feared factory work gave women too much freedom. As one man put it:

Women . . . are becoming a little too free. When I marry, I will not let my wife work. Then she will have to obey my wishes because she will be dependent on me.

Not all Bangladeshi men think that way. In fact, the earning power of women is eroding the custom of bridal dowries. It has also brought about greater responsiveness by the court system toward women. Since women have started working, the "law is on their side," one woman explained.

Attitudes toward women are changing, and Kabeer found that earning increased the weight a woman's priorities carried within the household. "When she brings [in] money, I have to buy her whatever she wants," explained one factory woman's husband. He continued, "She may want a new sari or she may say that [our] daughter needs a book . . ." Because women can work and earn money, they are being given some recognition. Now all the men think that they are worth something," claimed one woman.

Tragedies like the Rana Plaza building collapse are horrifying and understandably garner a lot of press. But they should not overshadow the garment industry's wider-reaching effects on the material well-being and social equality of women in Bangladesh. As one factory worker put it: "The garments have saved so many lives."

CONCLUSION

Market-led innovation has improved the lives of women even more so than for men. Women have reaped greater benefits from health advances financed by the prosperity created by free enterprise: female life expectancy has risen faster than men's and today women outlive men almost everywhere. Women are also less likely to die in childbirth, and falling infant mortality rates have enabled smaller family sizes, giving women more time. Labor-saving household devices have also freed women from the burden of housework. This freeing of women's time is ongoing as appliances spread throughout the world, and as women spend less time on household production, more of them choose to engage in paid labor.

Labor market participation offers women economic independence and heightened societal bargaining power. Factory work, despite its poor reputation, empowered women in the 19th-century United States by helping
them achieve economic independence and social change. Today, the story of the factory girls is repeating itself in new settings across the world, as young women gain economic independence through risk and toil. In China, factory work gave rural women a chance to change their fates and the conditions in their home villages. In Bangladesh it let women re-negotiate restrictive cultural norms.

Innovation and market participation enable women to achieve greater material prosperity and promote positive cultural change away from sexism. Progress is still in its earlier stages in many countries, but with the right policies, women everywhere can one day enjoy the same degree of material prosperity and cultural gender equality present in the United States today.

NOTES


33. “Advance Retail Sales: Grocery Stores, Millions of Dollars, Seasonally Adjusted” vs. “Advance Retail Sales: Food Services and Drinking Places, Millions of Dollars, Seasonally Adjusted,” Federal Reserve Bank of St. Louis Economic Data, https://fred.stlouisfed.org/graph/?g=IfFgF.


45. Drakulić, *How We Survived Communism*, p. 43.

47. Chang, 23 Things They Don’t Tell You about Capitalism, p. 36.


56. “2,000,000 Women Walked Away from Washday,” advertisement in LIFE Magazine, April 24, 1950, pp. 117–19.


67. Kessler-Harris, Out to Work, p. 34.


90. Lebsock, *The Free Women of Petersburg*, p. 244.


102. Chang, “The Voices of Chinese Workers.”

103. This section draws largely on her work.

104. Chang, “The Voices of Chinese Workers.”


109. “Women and Suicide in Rural China.”


125. Kabeer, The Power to Choose, p. 49. Please note, this section draws largely on her findings.


131. Powell, Out of Poverty: Sweatshops in the Global Economy; and


139. “Suicide Mortality Rate (per 100,000 Population),” World Bank, https://data.worldbank.org/indicator/SH.STA.SUIC.
P5?locations=BD.

140. Quoted in Kabeer, *The Power to Choose*, p. 175.


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