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THE

DOUBLE **X** ECONOMY

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As the car whirled through the unlit streets of Accra, my heart pounded. The driver explained the scenes moving past us, his voice full of rage and sorrow.

Hundreds of homeless adolescent girls moved like shadows in the night. Some were half-naked, bathing in buckets because they had nowhere private to go. Others slept in piles. “They run from the villages,” the driver said. “Their parents want to sell them to a man they don’t know, to be a wife who must work like an animal by day and submit sexually by night. They run to the city, believing they can escape.”

Many had pregnant bellies or were holding infants. Rape was a fact of daily life in the villages, he said, but these streets were no safer. “We have a generation growing up, from birth, on the street,” the driver said in anguish. “They will never know a family or a community. How will they learn right from wrong? What will happen to Ghana when these children become adults?”

Many girls worked in the markets carrying shoppers’ purchases in baskets they balanced atop their heads, but some fell into prostitution. Still others became trapped in a nightmare of ancient stature: the slave trade that still emanates from West Africa and feeds the vast crime rings of the world.

In my hotel lobby, I felt as if I had stepped back from another dimension. I have been doing fieldwork among the world’s poor for a long time, but I have never observed anything that disturbed me more than what I saw on my first night in Ghana.

I had arrived that afternoon to start a promising project: my team from Oxford would test an intervention to help rural girls stay in school rather than drop out. It was a simple thing—providing free sanitary pads—but definitely worth a try. Retaining girls through secondary school was already known to be a powerful economic boost for poor nations. Educated females add to the quality of the labor supply, as well as its size, which stimulates growth. But girls who complete their education also have their first child later and so have fewer children, which slows the overwhelming rate of population expansion. Educated women also raise their own children differently, insisting they finish school, eat well, and are given adequate health care. These mothers act as a brake on the pernicious cycle of poverty that grips Africa.

But that evening I met someone who showed me what happened when the forces pulling girls out of school also made them run away. These girls in desperate flight produced a downward spiral that radiated danger and suffering for generations in the entire region. That destructive force, I knew, rolled across the world, carrying violence and instability to other countries—because human trafficking is one of international crime’s most profitable activities. My experience that night forever changed the way I thought about my work. And it gave me a sense of urgency that I have never lost.

The unlikely truth that equal economic treatment for women would put a stop to some of the world's costliest evils, while building prosperity for everyone, is at the core of this book's argument. In these pages, I will tell more stories like this one from the shadows of Accra. I will draw on personal experiences from the villages of Africa to the slums of Asia, as well as the boardrooms of London and the universities of the United States. Throughout, I will show how the same plot of economic exclusion repeats itself in each of these places, always with negative impact.

An unparalleled influx of data since 2005 reveals this reality: a distinctive pattern of economic inequality marks the female population of every nation, each with the same mechanisms holding the disadvantages in place. Everywhere, the barriers to women's economic inclusion reach beyond work and salary to encompass property ownership, capital, credit, and markets. These economic impediments, combined with the cultural constraints usually imposed on women—limited mobility, reproductive vulnerability, and the ever-present threat of violence—form a shadow economy unique to females: I call it "the Double X Economy."

If the global community chose to dissolve the economic obstacles facing women, an unprecedented era of peace and prosperity would follow. Over the past decade, a small movement has begun, propelled by the intention to do just that—eliminate the barriers. Though its numbers are still few, this women's economic empowerment movement now has global reach and counts a rising tide of the world's most powerful institutions among its partners: national governments, international agencies, large foundations, global charities, religious organizations, and multinational corporations.

I have been part of the women's economic empowerment movement from its beginning. My role began with research that tested ideas for helping women gain financial autonomy. Initially, I worked in rural areas, especially in Africa. I tested my own ideas, as well as those of others, and worked face-to-face with women in different countries and under varying circumstances. I also hosted an annual gathering of women's economic empowerment specialists called the Power Shift Forum for Women in the World Economy, where people working on this cause could share what they were learning. In 2015, my focus shifted. Though I continue to conduct research in remote areas, I now also participate in high-level policy conversations about implementing global reforms that take me to the capitals of the world.

I am frequently dismayed by what I observe. The national finance ministers who manage the world economy undermine women's advocates by treating them like a ladies' auxiliary. The Asia-Pacific Economic Cooperation (APEC) and the G20 may hold a "women's week" or start an "engagement group" and even put a phrase about women in their communiqués, but they won't accommodate the distinctive needs of half their citizenry in their plans. They refuse to learn how the exclusion of women hurts their economies or how including women in their national budgeting could bring the growth they so desperately seek. They sideline the Double X Economy on the basis of nothing more than prejudice.

That's why we need you. By writing this book, I hope to recruit many voices, hands, and minds to the cause of women's economic inclusion. I propose concrete, reasonable, and effective action. I ask you to join this movement regardless of your sexual and gender identity, race, or origin. I'm reaching out whether you work in a factory, in an office, on a farm, at home, or online. In this book, every time I say, "*We* should do this ..." or "*We* can infer that ...," I mean *all* of us.

Why are we only now learning about this shadow economy? There have been two obstacles: an absence of data and a blinkered way of thinking about our exchange systems. Economic measurement focuses on the exchange of money, but much of women's economic contribution, like household production or farm labor, goes uncompensated. Furthermore, the smallest unit of data we usually record is the household, in which women's earnings are typically attributed to a male head. For these two reasons alone, our systems do not pick up women's economic activity most of the time.

To make matters worse, institutions from universities to governments have not generally collected or analyzed data by gender. At the time of the women's movement of the 1970s, very few females were in academia; as a consequence, no discipline had given women much thought. Over the past fifty years, as women scholars rose in both numbers and prominence, one discipline after another—history, anthropology, psychology, sociobiology, archaeology, medicine, and biological science, to name just a few—was transformed when the simple question was asked, What about the women? But there are a few fields as yet untouched by this wave of intellectual change: economics is one of them. Meanwhile, the absence of consistent gender data has meant that comparing the welfare of women *here* with those *there*, or even *now* with *then*, has been impossible to do systematically.

The biggest obstacle, however, has been the deep contempt that economists hold for women, which has kept them from taking up the question. Those who manage the cogs and wheels of national economies train in the Ph.D. programs of university economics departments, where they learn to think of the economy as a disinterested machine operating far above the ground where issues like gender exclusion occur. It is also in the universities that economists learn to demean and dismiss women as a class.

Male economists' animus toward women has recently been the subject of essays in *The New York Times, The Washington Post,* the *Financial Times*, and *The Economist*. Press attention was sparked by a study that revealed, in shocking detail, what economists say about women in private. A million posts from an online discussion group where economics students and faculty gossip about their colleagues were analyzed to see whether, in unguarded moments, economists spoke about men and women differently. The words most frequently used about a female colleague were *hotter, lesbian, sexism, tits, anal, marrying, feminazi, slut, hot, vagina, boobs, pregnant,* *pregnancy, cute, marry, levy, gorgeous, horny, crush, beautiful, secretary, dump, shopping, date, nonprofit, intentions, sexy, dated,* and *prostitute*. The terms used in connection with males were *mathematician, pricing, advisor, textbook, motivated, Wharton, goals, Nobel,* and *philosopher*. Female economists told journalists these word lists reflect the way senior economists teach junior members to disparage women.[1]

Economics is the most male-dominated field in the universities worldwide—more so than even the science, technology, engineering, and math (STEM) fields. Because of rising numbers of women in science, more than half of Ph.D.s in scientific fields now go to women in some countries—like the United States—but less than a third of economics doctorates do.[2] Women's representation hasn't improved in decades because economists don't see a problem with their gender mix. As explained by the economist Shelly Lundberg, "Conventional wisdom in most disciplines is that diversity per se is good. Mainstream economics tends to reject that—a reflection of the willingness to believe that lack of diversity is an efficient market outcome. Economists are much more likely to believe that if there aren't many women in the field, it must be because they're not very interested or not very productive."[3]

The culture of economics departments, however, strongly suggests a different explanation. Forty-eight percent of female economics professors say they have experienced sex discrimination on the job. There is a pervasive atmosphere of bullying: many point to the economics research presentations required of new recruits, junior professors, and doctoral students, which are always subject to hostile scrutiny by the male faculty "trying to nail the speaker to the blackboard." At academic conferences, 46 percent of women say they will not answer a question or present an idea for fear of being treated unfairly. In 2018, the American Economic Association acknowledged that misogyny in the field resulted in "unacceptable behavior [that] has been allowed to continue through tacit toleration." Leah Boustan, a Princeton economist, explains that economics professors see women as an inferior class whose entry into the discipline threatens their status. These academics therefore intimidate women, hoping they will leave—so as to keep their own prestige intact.[4]

Economics as a discipline has an outsize impact on society because of its role in advising governments. "If systemic gender bias skews the way the field looks at things," said *The Economist*, "that has implications for the policymakers and others looking to academic economists for analysis, advice or indeed wisdom."[5] Economics professors' bias against real women translates into a negative attitude toward the topic of women's economics, making it hard for the Double X Economy to win a place on the global agenda.

The philosophy that underpins this intransigent stance also presents an imposing barrier. The first principle is that the economy is built on the collective actions of rational, informed individuals who act independently to make free choices in their own interest. Such an economy, if left to its own devices, is said to aggregate into the optimal outcomes for everyone—no matter how unequal things may look—as if guided by Adam Smith's famous "invisible hand." If someone has not benefited from this economic dexterity, then she either has some inborn deficit or has self-selected into her disadvantages.

The Double X Economy struggles with conditions so opposed to these basic premises that they falsify the entire philosophy. As we shall see over the course of this book, women, as a class, have severely constrained choices, have important information actively withheld from them, and are punished for showing anything like self-interest. Indeed, when it comes to economic choices, women can seldom act independently; rather, they are often coerced into acting irrationally—that is, against their own best interests. Women contend with economic *exclusion*, not merely unequal economic outcomes—a circumstance that the dismal science doesn't even have the tools to conceptualize. And the only explanation the prevailing philosophy can offer is that (a) women are biologically inferior when it comes to any kind of economic engagement or (b) they have *chosen* to put themselves in an underprivileged position in *every* country and *every* domain in the world economy, a proposition that is as bigoted as it is implausible. So, right at its roots, the global market's economic philosophy can't even address half the world's people. As a female economist writing in the *Financial Times* warned, "It is just as bad to have mainly male economic research and policy advice as it is to test medicines mainly on men. The results will fail at least half the population."[6]

Because of this stubbornness in academia, the data analysis that revealed the Double X Economy's profile has been done by gender groups within large international agencies, not universities. Early in this century, major institutions like the United Nations Development Programme and the World Economic Forum began comparing measures of women's status (education, employment, leadership, health, legal rights) with the performance data of national economies.[7] Given the basic assumptions of economics-as-we-know-it, they were surprised to discover a striking correlation between gender equality and national economic viability (Figure 1). Where gender equality was high, national incomes and living standards were also high, but where gender equality was low, countries were trapped in poverty and conflict.

At first, people said, "Oh, well, in the poor countries, they have to worry about survival, so it is necessary for the men to be dominant. The rich nations are more comfortable, so they can afford to let the women have more freedom."[8] Yet there was never any evidence that male dominance is necessary for survival. In fact, we can now say, with considerable evidentiary support, that excessive male dominance is actually a destabilizing factor that reduces the chances for survival, especially because it so often leads to conflict. But the default explanation that gender equality was a luxury—and that male power somehow made populations better off—fit people's beliefs, so, at the time, folks just accepted it.

FIGURE 1. Each dot on the two graphs shown here represents a country's Women's Economic Opportunity Index score as related to either readiness for growth (top) or GDP (bottom). There are approximately one hundred nations shown in each graph; all those for which the data was available were included. In the top graph, the upward-right direction of the dots indicates that more economic freedom for women corresponds positively to national competitiveness, a measure of a country's readiness for growth. On the bottom, there is a similar pattern between GDP per capita and women's economic

empowerment. These two graphs taken together, showing the "before" and "after" of rising GDP, imply that women's freedoms have a positive effect on national wealth. Other data has converged to reach the same conclusion.

Sources: World Bank Database for GDP at purchasing power parity; Economist Intelligence Unit for the Women's Economic Opportunity Index; World Economic Forum for the National Competitiveness Index

In 2006, however, the World Economic Forum's annual *Global Gender Gap Report* began framing the economics of gender differently, taking the stance that including women equally in national economies spurred growth and that, without fair inclusion of women, countries would stagnate. The solution for poor countries, therefore, was to emulate the rich nations by embracing gender equality. The lesson implied: it's not that the rich nations could afford to set their women free, but that setting the women free made them rich.

Still more data has now been generated and further analysis done by the International Monetary Fund, the World Bank, UNICEF, and several global think tanks.[9] By 2018, all this material had converged to show gender equality positively influencing country wealth and overall well-being, while also showing the negative influences of male economic monopoly. During the same period, smaller practical studies—such as ours in Ghana—examined the mechanisms that produce gender inequality and tested interventions to find "what works" to lift the limits on female participation. Ultimately, our understanding of women's role in economics changed drastically.

The Double X Economy can be grasped in a way similar to the underground economy, the gig economy, the information economy, and the informal economy. Each of these is an identifiable part of the world system, though none is completely self-contained; all have an effect on the global economy and will play a part in its future, for better or worse. The Double X Economy is an economy composed of women. It has certain ways of doing business, as well as typical products and services. And, while it is as invisible as the underground economy to many, the Double X Economy will affect the future, just as it has the past. The goal for the women's economic empowerment movement is to make that future better, not worse.

In the beginning of the women's economic empowerment movement, we usually made the case for supporting the Double X Economy on the basis of the expected boost to economic growth. That strategy appealed to the audience—mostly economists and finance ministers who were interested in growth but unmoved by appeals to social justice for women. Over time, we began to use GDP as shorthand for the magnitude and direction of any large-scale effect when women were included (or not). That is how I will use GDP. I am not suggesting that we should empower women for growth alone. The indiscriminate drive for more growth is a defining feature of patriarchal economics; it should not be our main goal.

The numbers show that the Double X Economy is huge; only resolute blindness causes economists to miss it. To illustrate, if the Double X Economy in the United

States were its own nation, that country's economy would be big enough to join the G7. Women already produce roughly 40 percent of global GDP, and their contribution will soon match that of men. Women produce almost 50 percent of worldwide agricultural output. Despite accounting for half the species, half the national income, and half the food supply, women are nevertheless treated as bit players by economists and policy makers.[10]

The Double X Economy is also the most reliable source of economic growth. When great numbers of women in North America and Western Europe entered the labor market during the 1970s, they caused an economic upswing that made their countries the powerhouses you see today. The capability that working women have to create prosperity has now been proved using data from 163 countries.[11] Men, in all countries, form the bedrock of the economy because pretty much all of them work, more or less all the time. That means, short of a revolution in productivity, growth is not going to come from male labor because men are maxed out. Women, however, are often an untapped or underutilized resource, so getting more females engaged causes the economy to grow. The data shows that women's entry into the labor force is additive, so the new trend does not result in employment losses for men, as is often feared. The belief that economic inclusion for women is a zero-sum game—that is, that gains by one sex happen at the expense of the other—has proved false.

By helping countries to prosper, women's economic empowerment produces a better environment for all citizens. But the reverse is also true: where women have no freedoms, everyone suffers. In the poorest and most fragile countries, indicators of gender equality are lowest and the effects of women's economic exclusion are devastating, perpetuating poverty and contributing to violence, as well as increasing hunger, denying children's needs, wasting resources, feeding slavery, and encouraging conflict. The destructive impact of extreme male dominance in these societies is felt by everyone on earth.

Enabling women is now a proven strategy in the fight against suffering. "As study after study has taught us, there is no tool for development more effective than the empowerment of women," wrote Kofi Annan, Secretary-General of the United Nations, in the opening of UNICEF's *The State of the World's Children* report in 2007. "No other policy is as likely to raise economic productivity or to reduce child and maternal mortality. No other policy is as sure to improve nutrition and promote health, including the prevention of HIV/AIDS. No other policy is as powerful in increasing the chances of education for the next generation." [12] Yet, despite the known capability of economically enabled women to alleviate distress in poor countries, only the thinnest slice of international aid is aimed at females.

All over the globe, the opportunity cost of excluding the Double X Economy is steep. For instance, the rich nations' failure to invest in childcare forces millions of women who prefer full-time jobs to work part-time or quit completely, leaving billions in GDP on the table. "The motherhood penalty" is also the single biggest contributor to the gender pay gap. The World Bank estimates that, because of unequal pay, the global economy loses US$160 trillion every year,[13] while penalizing the Double X Economy for some of its most important economic work—the cultivation of human capital.

An educated, healthy population is the most valuable resource a modern economy can have. The West, however, has come to see children as private luxuries rather than public assets. Parents must pour money and effort into their children until they can sustain themselves. Once children are grown, they are seldom expected to provide economic support to their parents. So, raising children feels like consumption, not investment. Perhaps that's why people in rich nations have lost sight of how important each rising generation is to every cohort ahead of them—we all must rely on *other people's children* to be our firefighters, police, and construction crews, not to mention the teachers, doctors, musicians, and librarians who make our lives safer and happier.

The Double X Economy lays the groundwork for a positive future by its judicious spending on families and communities. Though the prevailing wisdom *everywhere* is that women are frivolous consumers who blow their money on clothes and cosmetics, while men are rational and responsible economic beings, evidence reveals this belief to be straight-out gender ideology. Men, as a group, often choose to spend money on their own indulgences, rather than sharing it with their families, even prioritizing expenditures on vices such as alcohol, tobacco, gambling, prostitution, and guns above their children's education. By contrast, women, as a group, spend first on their families, especially children, and communities. A report by Goldman Sachs's Global Markets Institute argued that the BRIC (Brazil, Russia, India, and China) and "Next 11" countries (Bangladesh, Egypt, Indonesia, Iran, Mexico, Nigeria, Pakistan, the Philippines, Turkey, South Korea, and Vietnam) must achieve gender equality in order to create a middle class, which every market economy needs for stability. Goldman Sachs argued that women's spending money on improving household welfare—nutrition, education, medical care, clothing, childcare, and household durables—is what builds the middle class.[14] Research has demonstrated repeatedly that, even in the poorest communities, economically empowering women increases spending on education, nutrition, and health care, strengthening countries in the process.

Despite women's centrality to our material well-being, the Double X Economy is consistently undervalued. This is because a worldwide conviction persists that females simply deserve less. You can see it, for instance, in the Wage Equality for Similar Work data collected each year by the World Economic Forum.[15] In the WEF's Executive Opinion Survey, managers in 132 nations are asked, "In your country, for similar work, to what extent are wages for women equal to those of men?" The sum of their answers is not a direct report of actual pay, but an estimate of what normative practice is in that country—what women are customarily and, implicitly, *fairly* paid. As you can see in Figure 2, there is no country on earth where the custom is to pay the sexes equally for the same work. A global rule of thumb says that a woman is worth only about 65 percent of what a man is, whatever job they are doing. This prejudice drives women's subordination in every economic domain.

In every type of work in every sector, every occupation, and every country, women are paid less than men; every source of pay information, collected by every method, ends in this conclusion. Only through dishonest manipulation of the data can you show any other finding. Unfortunately, plenty of apologists for male dominance are willing to do that, just so they can push out a meme claiming that "the gender pay gap is a fiction." These trolls massage pay data to control for influences that are clearly gendered, especially the impact of housework and childcare on women's careers, then announce triumphantly there is no such thing as gender discrimination.

In truth, the crux of the Double X Economy's plight is its burden of servitude; so-called "obligations" at home penalize women in the workplace and increase their personal economic risk. Women in every country work as many total hours as (or even more than) men, but because females carry the burden of unpaid household labor, they have fewer hours to devote to paid work, as well as to leisure time. Men can work longer paid hours—and garner the economic benefits—because women are serving them at home.

FIGURE 2. The Wage Equality for Similar Work measure is expressed as the percentage of men's pay that women are paid for the same or similar work. The black bar marks the level at which women would be paid equally to men. You can easily see that women are not customarily paid equally for the same work in any country in the world. Countries are shown alphabetically, starting with Albania and ending with Venezuela.

Source: World Economic Forum, *The Global Gender Gap Report*, 2018

Cross-national comparisons demonstrate this trade-off for women and governments. As illustrated in Figure 3, women's participation in the labor force has led to higher GDP per capita in wealthy countries like Sweden, the United States, and the U.K., all nations where women work in numbers nearly equal to men but put in fewer paid hours. Women in these countries still do more housework than men—from 30 percent more in Sweden to nearly double that figure in the U.K. So, women and men work an equal number of hours in total, but the men are getting paid for most of their time, while the women are doing more unpaid. Mexico, Turkey, and India have lower female labor participation and, consequently, lower GDPs. Women at home are a significant opportunity cost to these nations. Their women do three to seven times more housework than men. The domestic burden is so skewed in Turkey and India that women work at home for an hour to two hours more than men every day—they're still mopping floors while their husbands are watching TV.

PAID AND UNPAID LABOR BY GENDER

	Labor force participation (female-to-male ratio)	GDP per capita (thousands of US$)	Time per week spent in unpaid work (female-to-male ratio)	Total hours worked per week (female-to-male ratio)	WEF Economic Participation and Opportunity rank (out of 144) in 2017
SWEDEN	95	51.5	1.3	1.00	12
U.S.	86	59.5	1.6	1.01	19
U.K.	87	44.1	1.8	1.04	53
MEXICO	59	19.9	2.8	1.02	124
TURKEY	44	26.9	3.6	1.15	128
INDIA	35	7.2	6.8	1.21	139

FIGURE 3. The percentage of women working varies from the top to the bottom of this table, more or less matching the GDP per capita of each country. This is the connection between working women and national wealth. The third column shows the proportion of time women in that country, as compared with men, spend in unpaid work. In the fourth column is the relationship between all hours spent working, whether paid or unpaid, as compared with men. The fifth column shows each country's rank in the World Economic Forum's Economic Participation and Opportunity Index. The more housework women do, the fewer opportunities are made available to them.

Sources: World Economic Forum, *The Global Gender Gap Report,* 2017, for labor and Economic Participation and Opportunity rank; CIA, *World Factbook*, 2017, for GDP per capita; Organisation for Economic Co-operation and Development database for time use, accessed November 2, 2018

Women's economic viability is therefore inversely related to their position at home: the more housework women do, the less economic opportunity they have. Subservience in the household also imposes disproportionate losses and risks on women. They are typically expected to subordinate their own ambition to that of their husbands. It is virtually *always* the woman who quits or shifts to part-time work when children come; he continues building his career while hers flounders or goes up in smoke. Women turn down opportunities to advance because their husbands refuse to relocate, even though women are usually expected to relocate for their spouses. Women's "responsibilities" in the home gradually result in lower pay and less advancement at work, but the impact does not stop there: if a couple divorces or the husband dies, the woman and her children will experience economic hardship, and often fall into poverty. Because of a lifetime's accumulation of economic disadvantages, a woman's pension or retirement account will be significantly smaller than a man's, so women are more likely to be poor in old age, becoming a burden to their families and their governments.[16]

The work that women do at home is essential for the functioning of the economic system. However, the practice of measuring only money as a proxy for economic activity has meant that work done in the home does not have a value attached to it. Unfortunately, that omission has developed, over time, into a propensity on the part of economists to treat that labor as if it were without value entirely. That's why feminist economists and women's economic empowerment activists are pushing hard to get governments and their advisors to calculate the value of this unpaid work and include it in their models.

The Double X Economy has never enjoyed an equal share of the wealth it helps produce, largely because women have not been equal owners in family assets. Globally, less than 20 percent of the world's landowners are women. Because land has for so long been society's main store of wealth—and women have nearly always been prohibited from owning it—females now hold much less capital worldwide than men do. Even as wealth expands and some women become rich, they still don't get a fair share.[17]

Another reason women hold less wealth today is that they haven't had the means to keep money safely and privately, nor the ability to invest it. The Double X Economy has been barred from the financial system for centuries; only in the 1970s did women in the West win the right to have bank accounts and credit cards in their own names. Today, women in the developing world push for those same rights. Unfortunately, disrespect for women is still the order of the day in finance, even when it is in the sector's best interest to be welcoming. Bankers protest that females are risky investments, that they care about babies not business, that they are unprofitable financial customers—any excuse they can think of. But nothing the financial sector says to disparage women should be taken seriously, because these institutions do not separate their records by gender and so their views are based on stereotypes rather than evidence.[18] They literally don't know what they're talking about.

In a world given to congratulating itself on open exchange and free trade, the Double X Economy routinely struggles against gender-based barriers to market entry. Guilds, unions, cooperatives, and marketing boards historically have barred women in the West, something that is still true in other parts of the world. But at the level of global exchange, where the markets and profits are very large, the exclusion of women is nearly total. Very few women participate in international trade or win large institutional sales contracts, both areas of the economy in which men control a staggering 99 percent of business. Yet, according to the International Monetary Fund, introducing better gender balance to global trade would be beneficial, because such diversity makes economies more resistant to downturns and more prone to innovation.[19]

The Double X Economy is also constrained in the marketplace because women have limited access to productive resources. Everywhere, females have difficulty commanding the equipment, labor, and materials needed to found and grow their own enterprises. Customers and suppliers believe it's permissible to cheat women, who then may be unable to turn the same profits as their male competitors. Though the constraints are systemic, female entrepreneurs are often criticized for slower business growth; detractors insist that "women just don't know anything about business" or that "women really aren't serious about growth."

The efficient operation of a market assumes the free flow of information. Even in the digital age, however, women have less access to data. While women in developed nations use resources like the internet and mobile phones in numbers equal to men, there has been a large gender gap in the rest of the world in access to information communications technologies. The gap stems from long-standing habits of keeping women at home and controlling their communication with the outside world.

Due to historical gender barriers to learning, the Double X Economy has always had limited access to information. Since the invention of writing and mathematics, societies have limited women's education. Ancient cultures forbade them literacy; today, adult women are more often illiterate than any other segment of the world's population. Over the millennia, education for girls—where it existed at all—focused on household arts, leaving issues of law, medicine, finance, government, and management to boys. Women were not admitted to universities until the nineteenth century, and some disciplines, usually science and mathematics, were off-limits to them until after World War II. When women closed the achievement gap in these subjects during the 1990s, it was because governments had at last given them equal access to higher math classes.[20] Any alleged cognitive deficits had been caused not by inferior female brains but by men who denied women schooling.

Today, the world's women are approaching equality to men in education for the first time in history; indeed, in the developed nations, they are already educated to an equal or greater degree than men. Yet women are still held back from realizing their potential. Consider that among the G7 countries—the United States, the U.K., France, Germany, Italy, Japan, and Canada—women between the ages of twenty-five and fifty-four are 10 percent more likely to have completed higher education than men of the same age (Figure 4). Though female labor force participation is very high and women occupy an equal number of the professional and technical jobs that require the most specialized training and skill, they have not advanced at a rate commensurate with their qualification: men are twice as likely to hold leadership posts in the public or private sectors. This lack of advancement is one reason why, across the G7 countries, women earn only 62 percent of what men do. Meanwhile, young women in the G7 are currently enrolled in higher education nearly 20 percent more often than men are. Unless the barriers that blocked the previous generation are removed, the next cohort of young women will move through their careers slowly and be underemployed at every stage.

Think about what goes into educating these women. Family savings. Government loans and scholarships. Gifts to universities. Taxpayer contributions. These nations are deploying significant resources to educate women, yet they are underutilizing female talent.

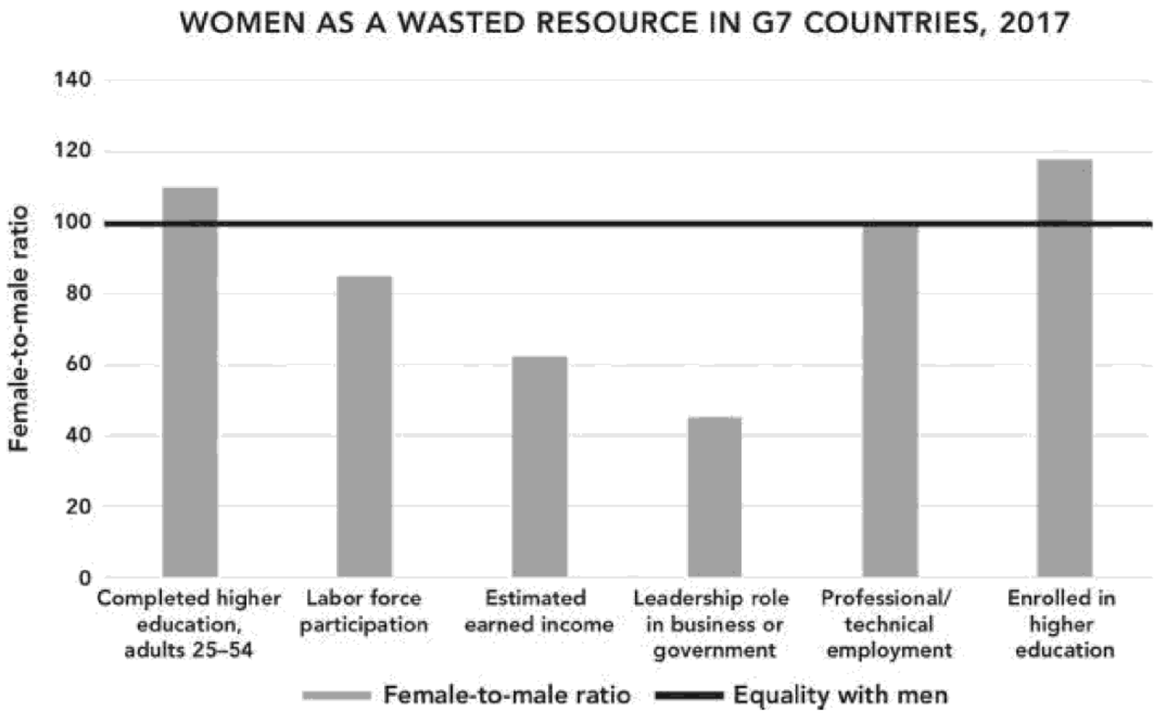


FIGURE 4. The columns show key economic measures as female-to-male ratios. The black bar marks where women would be equal with men. Where the column rises above that bar, women have exceeded men; in the columns that fall below the bar, equality has not been reached. So, from the left, women in the G7 have exceeded men in completion of higher education by 10 percent; are 85 percent of men's representation in the labor force; are paid 62 cents on the dollar; are in less than half the leadership posts men are; are equally likely to be in employment that requires specialized skill; and are now enrolled in higher education nearly 20 percent more often than men are.

Source: World Economic Forum, *The Global Gender Gap Report*, 2017

Ironically, the G7 countries face the imminent prospect of slow or even zero growth, a problem that better inclusion of women would solve. There is also a skills gap looming in which new jobs will require highly skilled labor, but there won't be enough who meet the qualifications—in part because the G7 countries are throwing some of their best people under the bus. The Double X Economy may well be the world's most wantonly wasted resource.

Just as important to national economies, however, is the power of gender equality to reduce costs that drag on growth. For instance,
domestic violence, a phenomenon closely linked to economic gender inequality within communities, is extremely expensive for nations. Over and above the inestimable price of human suffering, there are the police calls, emergency room visits, women's shelters, lost work days, and psychological counseling, which all have price tags that can be used to calculate the aggregate costs. In 2014, the Copenhagen Consensus Center estimated that intimate partner violence against women costs the global economy US$4.4 trillion annually, or 5.2 percent of GDP. To

The Double X Economy is also consistently undercut by everyday bigotry. Businesses and other institutions avoid confronting this reality, instead hiding behind flashy but insincere "diversity programs" and euphemizing bigotry as "unconscious bias." Unconscious bias is a specific cognitive phenomenon in which well-established habits of perception produce shortcuts in the brain's processing. Those shortcuts do sometimes result in unconscious acts of unfairness, but the reason that happens is that the cerebral connections were already imprinted by years of learning that women are less worthy. The term is now widely used, however, as a blame-free smoke screen for anyone committing discrimination, whether unconscious or overt, to hide behind. Labeling all discrimination "unconscious bias" only provides cover for those who are consciously biased to continue in unrepentant acts of prejudice.

In companies where males are more dominant—as a rule of thumb, where 70 percent or more of the employees are men—there is more sexual harassment and discrimination against women. However, there is also a marked propensity to mistreat male employees in these organizations. Bullying and autocracy become the order of the day. In male-dominant sectors, the employers are more likely to be "greedy institutions"—that is, they demand an unlimited lien on all the individuals' mental and emotional energy, compelling employees to put their work first, laying claim to all private time, and devaluing other forms of activity, including family life and sleep. Men in such organizations have a significantly higher incidence of health problems, especially heart disease. Here is where we see what the Japanese call *karōshi*—literally, "overwork death."[26] The toxic environments in such firms can be attributed, in part, to the group dynamic *among* the men, which, as the tension accelerates, tends to produce more aggression as well as negative attitudes toward women.

Gender balance makes workplaces friendlier and fairer, while also spurring superior business outcomes. Study after study shows that the best results come from work teams composed of both women and men: they produce better products, more innovation, and stronger financial returns. Corporate boards with at least 30 percent women show vastly improved performance, with higher financial returns, reduced risk, better governance, improved accountability, fairer personnel management, more transparency, more environmentally sustainable operations, and less inclination to award outrageous salaries or bonuses.

Governments and the public benefit from diverse corporate leadership because the improved transparency and risk reduction protect the stability of the overall economy. A number of social and environmental benefits are also attributable to the values women bring to corporate leadership. A 2012 study from the University of California at Berkeley showed that companies with higher numbers of women on their boards are more likely to invest in renewable power, to actively measure and reduce the environmental effects of their production and packaging, to implement carbon-reduction programs among their suppliers, to integrate the impact of climate change into their planning and financial decisions, to help customers manage climate change risks, to work actively to improve their operations' energy efficiency, and to minimize and mitigate biodiversity disturbances.[27]

The Double X Economy therefore brings an ethic of leadership that could quell the worst impulses of the patriarchal system. Having been excluded from the world of high finance and quick riches throughout history, women appear to assess risk more realistically than do men. Having been charged with the cultivation of children, they seem to have a longer horizon than their male compatriots for return on investment, as well as a greater aversion to long-term damage, such as is happening to the environment. Perhaps because of their historical emphasis on home and connection, women are more likely to invest in their communities, to give to charity, and to demand social responsibility from both the products and stocks they buy.

In the rich nations, including the Double X Economy increases efficiency and performance while reducing risk and waste. In the poorest nations, enabling the Double X Economy can act as a counterweight to the unrelenting pull toward disaster that extreme male dominance causes. But the greatest potential may be in the middle: the "emerging economies"—places like Brazil and Turkey—all rank somewhere between the comparatively better gender conditions of the rich countries and the despair in the conflict zones. These middle-income economies are working successfully toward achieving stability and prosperity, but they remain vulnerable, not least because half their population is so deeply disadvantaged by discriminatory economic practices. Women's economic empowerment within the households of emerging economies can equalize family decision-making, lift livelihoods, reduce interpersonal stress, and open opportunities for all members.

Women are economically disadvantaged in every country in the world. Indeed, it appears that women are economically unequal *within* every group on the planet. There are no religious, ethnic, class, or racial groups in which women, as a class, are as economically autonomous as men. It's because females are unequal in every group that a program to better include women economically would benefit all segments of the world population, including the most marginalized people.

Never in history have we had such a vivid blueprint for eliminating suffering, achieving justice, and ensuring peace. Never before has it been possible to troubleshoot one problem and solve so many others. What we can achieve is worth every effort we can make, every new tool we can invent, and any funds we have to invest. Now is the time for all women and men to join the movement to empower the Double X Economy.

Notes

1. Diane Coyle, "Economics Has a Problem with Women," *Financial Times*, August 28, 2017, https://www.ft.com/content/6b3cc8be-881e-11e7-afd2-74b8ecd34d3b; Mary Daly, "Economics Trails the Sciences in Attracting a Diverse Student Mix," *Financial Times*,

May 13, 2018, https://www.ft.com/content/d47e885a-539b-11e8-84f4-43d65af59d43; "Inefficient Equilibrium: Women and Economics," *Economist*, December 19, 2017, https://www.economist.com/christmas-specials/2017/12/19/women-and-economics; Elizabeth Winkler, "'Hotter,' 'Lesbian,' 'Feminazi': How Some Economists Discuss Their Female Colleagues," *Washington Post*, August 22, 2017, https://www.washingtonpost.com/news/wonk/wp/2017/08/22/hotter-lesbian-feminazi-how-some-economists-discuss-their-female-colleagues/; Justin Wolfers, "Evidence of a Toxic Environment for Women in Economics," *New York Times*, August 18, 2017, https://www.nytimes.com/2017/08/18/upshot/evidence-of-a-toxic-environment-for-women-in-economics.html; Justin Wolfers, "Why Women's Voices Are Scarce in Economics," *New York Times*, February 2, 2018, https://www.nytimes.com/2018/02/02/business/why-womens-voices-are-scarce-in-economics.html; Ann Mari May, "Women Are Missing from Economics. Here's Why That Matters for All of Us," *Huffington Post*, June 11, 2018. But see also Mark J. Perry, "Women's Voices Might Be Scarce in Economics, but They Are Abundant and Over-Represented in Most Academic Fields and Graduate School Overall," *AEIdeas*, February 4, 2018, http://www.aei.org/publication/womens-voices-might-be-scarce-in-economics-but-they-are-abundant-and-over-represented-in-most-academic-fields-and-graduate-school-overall. Perry, a professor at the University of Michigan, makes the usual argument that women are just naturally drawn to other subjects, but he also objects that there are *too many* women in other subjects (admitting also that their performance is better) and nobody is complaining about that. His argument would be more persuasive if there weren't so much evidence of bullying and harassment of women in economics departments. Alice Wu, *Gender Stereotyping in Academia: Evidence from Economics Job Market Rumors Forum* (thesis, University of California, Berkeley, December 2017), https://growthecon.com/assets/Wu_EJMR_paper.pdf.

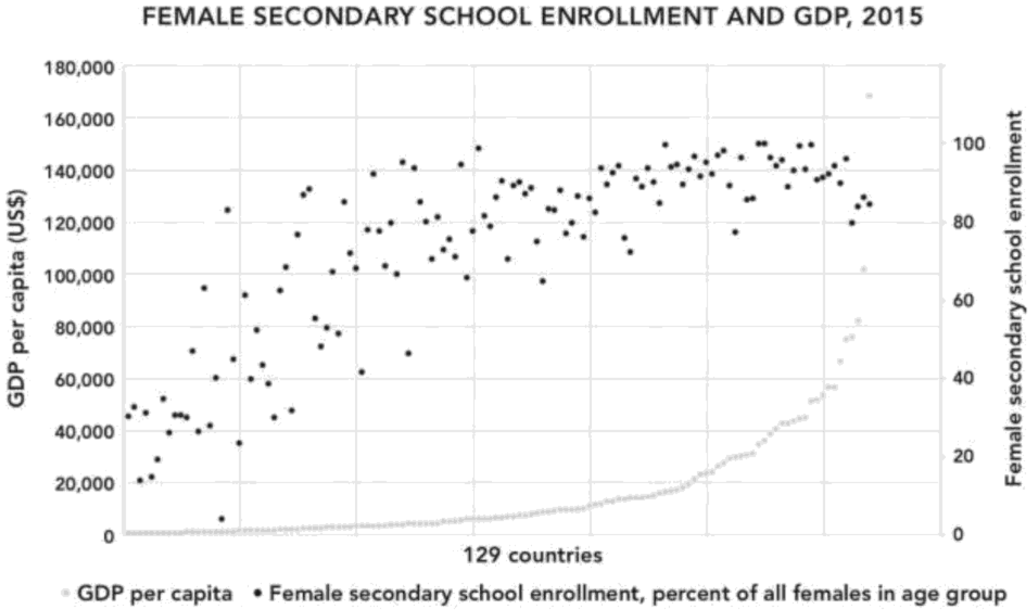
2. Wolfers, "Why Women's Voices Are Scarce in Economics"; American Physical Society, "Doctoral Degrees Earned by Women," https://www.aps.org/programs/education/statistics/fraction-phd.cfm. The data goes up to 2017 and is taken from the Integrated Postsecondary Education Data System and the American Physical Society.
3. John T. Harvey, "Do Women Avoid Economics ... or Does Economics Avoid Women?," *Forbes*, January 11, 2019, https://www.forbes.com/sites/johntharvey/2019/01/11/do-women-avoid-economics-or-does-economics-avoid-women/#642585aa2f32; Winkler, "'Hotter,' 'Lesbian,' 'Feminazi.'"
4. "Market Power: Women in Economics," *Economist*, March 23, 2019, 11–12; Daly, "Economics Trails the Sciences in Attracting a Diverse Student Mix"; Wolfers, "Why Women's Voices Are Scarce in Economics"; "Inefficient Equilibrium"; Winkler, "'Hotter,' 'Lesbian,' 'Feminazi.'"
5. "Inefficient Equilibrium."
6. Coyle, "Economics Has a Problem with Women."
7. The first of these attempts was actually made in 1995 by the United Nations Development Programme's *Human Development Report*. However, there was a long period of silence after that. It was in 2006, when the World Economic Forum published its first *Global Gender Gap Report*, that other institutions began reporting on the links between gender equality and economic health. Between 2006 and 2012, several important reports were released in a row. After that, activity increased every year. *Gender, Equality and Development* (Washington, DC: World Bank Group, 2012); Organisation for Economic Co-operation and Development, *Closing the Gender Gap: Act*

Now! (Paris: Organisation for Economic Co-operation and Development, 2011); UNICEF, *State of the World's Children: Women and Children—The Double Dividend of Gender Equality* (New York: UNICEF, 2007). At this point, early 2019, reports from major institutions are released every year.

8. See, for instance, Ronald Inglehart and Pippa Norris, *Rising Tide: Gender Equality and Cultural Change Around the World* (Cambridge, UK: Cambridge University Press, 2003).
9. Katrin Elborgh-Woytek, Monique Newiak, Kalpana Kochlar, Stefania Fabrizio, Kangni Kpodar, Philippe Wingender, Benedict Clements, and Gerd Schwartz, *Women, Work and the Economy: Macroeconomic Gains from Gender Equity* (Washington, DC: International Monetary Fund, 2013); DeAnne Aguirre, Leila Hoteit, Christine Rupp, and Karim Sabbagh, *Empowering the Third Billion: Women and the World of Work* (New York: Booz and Company, 2012); Sandra Lawson and Douglas B. Gilman, *The Power of the Purse: Gender Equality and Middle-Class Spending* (New York: Goldman Sachs Global Market Institute, 2009); Jonathan Woetzel, Anu Madgavkar, Kweilin Ellingrud, Eric Labaye, Sandrine Devillard, Eric Kutcher, James Manyika, Richard Dobbs, and Mekala Krishnan, *The Power of Parity* (New York: McKinsey Global Markets Institute, 2015); "Pursuing Women's Economic Empowerment, Meeting of the G7 Ministers and Central Bank Governors, June 1–2, 2018, Whistler, Canada," prepared by the staff of the International Monetary Fund, May 31, 2018, https://www.imf.org/en/Publications/Policy-Papers/Issues/2018/05/31/pp053118pursuing-womens-economic-empowerment; UNICEF, *State of the World's Children.*
10. Woetzel et al., *The Power of Parity*, 26. According to McKinsey, the global average in 2015 was 37 percent. However, the GDP contribution of women is higher in the bigger economies, and it is growing. On this basis, I have conservatively estimated roughly 40 percent at this time. See also Food and Agriculture Organization, "Women in Agriculture: Closing the Gender Gap for Development," in *The State of Food and Agriculture* (Rome: Food and Agriculture Organization of the United Nations, 2011).
11. Ewa Lechman and Harleen Kaur, "Economic Growth and Female Labor Force Participation—Verifying the U-Feminization Hypothesis: New Evidence for 162 Countries over the Period 1990–2012," *Economics and Sociology* 8, no. 1 (2015): 246–57. The discourse about working women and growth builds substantially on the work of the Harvard professor Claudia Goldin. For instance, Claudia Goldin, "The U-Shaped Female Labor Force in Economic Development and Economic History," NBER Working Paper Series, no. 4707 (Cambridge, MA: National Bureau of Economic Research, 1994).
12. UNICEF, *State of the World's Children.*
13. Quentin Wodon and Benedicte De La Briere, *Unrealized Potential: The High Cost of Gender Inequality in Earnings* (Washington, DC: World Bank Group, Children's Investment Fund Foundation, Global Partnership for Education, Canada, 2018).
14. Lawson and Gilman, *The Power of the Purse.*
15. World Economic Forum, *The Global Gender Gap Report*, 2006–2018.
16. Organisation for Economic Co-operation and Development, *Closing the Gender Gap.*
17. For landholders, Food and Agriculture Organization, "Gender and Land Rights Database," http://www.fao.org/gender-landrights-database/en/. For wealth, "Daily Chart: Women's Wealth Is Rising," *Economist*, March 8, 2018, https://www.economist.com/graphic-detail/2018/03/08/womens-wealth-is-rising.
18. *Measuring Women's Financial Inclusion: The Value of Sex-Disaggregated Data* (Washington, DC: Global Banking Alliance for Women, Data 2X, InterAmerican Development Bank,

2015).

19. Susan Harris Rimmer, *Gender-Smart Procurement Policies for Driving Change* (London: Chatham House, 2017); Romina Kazandjian, Lisa Kolovich, Kalpana Kochhar, and Monique Newiak, "Gender Equality and Economic Diversification," International Monetary Fund Working Paper, WP/16/140, https://www.imf.org/external/pubs/ft/wp/2016/wp16140.pdf.
20. Gerda Lerner, *The Creation of Patriarchy* (Oxford: Oxford University Press, 1986); Janet S. Hyde, Sara M. Lindberg, Marcia C. Linn, Amy B. Ellis, and Caroline C. Williams, "Gender Similarities Characterize Math Performance," *Science* 321 (2008): 494–95; E. Zell, Z. Krizen, and S. R. Teeter, "Evaluating Gender Similarities and Differences Using Metasynthesis," *American Psychologist* 70 (2015): 10–20.
21. *WHO Multi-country Study on Women's Health and Domestic Violence Against Women: Summary Report—Initial Results on Prevalence, Health Outcomes and Women's Responses* (Geneva: World Health Organization, 2005); Anke Hoeffler and James Fearon, "Conflict and Violence Assessment Paper," Copenhagen Consensus Center, August 22, 2014; Bjørn Lomborg and Michelle A. Williams, "The Cost of Domestic Violence Is Astonishing," *Washington Post*, February 22, 2017; Valerie Hudson, Bonnie Ballif-Spanvill, Mary Caprioli, and Chad Emmett, *Sex and World Peace* (New York: Columbia University Press, 2014).
22. Max Roser, "War and Peace," Our World in Data, https://ourworldindata.org/war-and-peace. See also Steven Pinker, *The Better Angels of Our Nature: Why Violence Has Declined* (New York: Viking, 2011).
23. For a review and discussion of statistics, see Conor Seyle, "Is the World Getting More Peaceful?," OEF Research, a program of One Earth Future, https://oefresearch.org/think-peace/world-getting-more-peaceful.
24. Dwight D. Eisenhower, address to the American Society of Newspaper Editors, April 16, 1953, available online.
25. Kevin Bales, *Disposable People: New Slavery in the Global Economy* (Berkeley: University of California Press, 2017).
26. Marianne Egger de Campo, "Contemporary Greedy Institutions: An Essay on Lewis Coser's Concept in the Era of the 'Hive Mind,'" *Czech Sociological Review* 49, no. 6 (2013): 969–86. The original concept of "greedy institutions" was the brainchild of Lewis Coser. See Lewis Coser, *Greedy Institutions: Patterns of Undivided Commitment* (New York: Free Press, 1974). See, for instance, M. G. Marmot, G. Rose, M. Shipley, and P. J. Hamilton, "Employment Grade and Coronary Heart Disease in British Civil Servants," *Journal of Epidemiology and Community Health* 32, no. 4 (1978): 244–49.
27. Kellie A. McElhaney and Sanaz Mobasseri, *Women Create a Sustainable Future* (San Francisco: University of California, Center for Responsible Business, Haas Business School, 2012), https://www.eticanews.it/wp-content/uploads/2012/11/Report-Women_Create_Sustainable_Value.pdf.



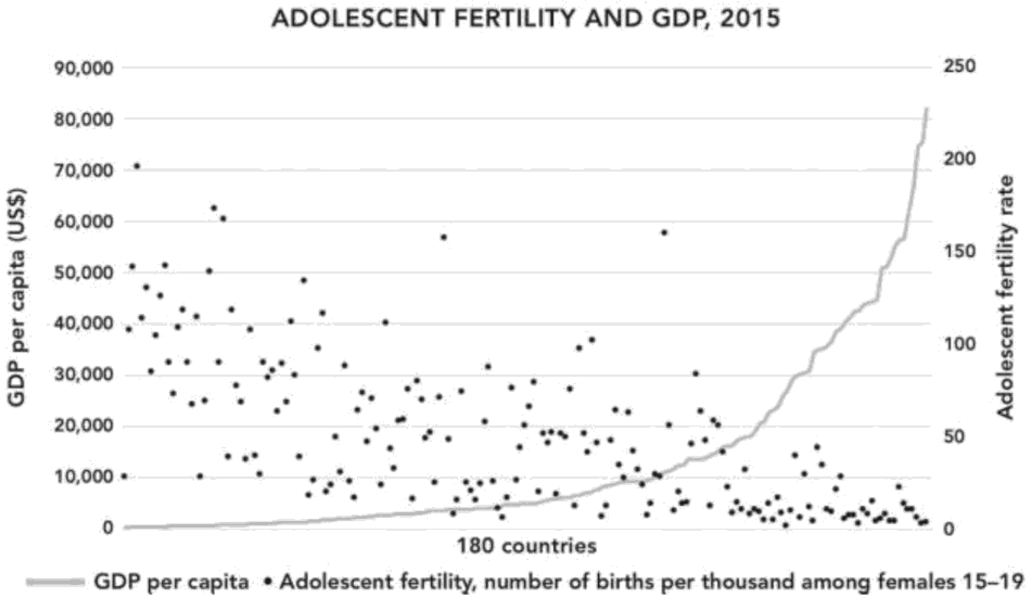


FIGURE 5. The graph at the top shows that GDP increases as more teenage girls remain in school. Notice that the benefit is attached to enrollment, not graduation. Every year a girl is in school helps her and her country. The graph at the bottom shows that GDP also goes up when fewer teens get pregnant. So, as enrollment goes up, teen pregnancy goes down, but GDP goes up in both cases.

Source: World Bank Database, accessed December 15, 2018 (latest available data)

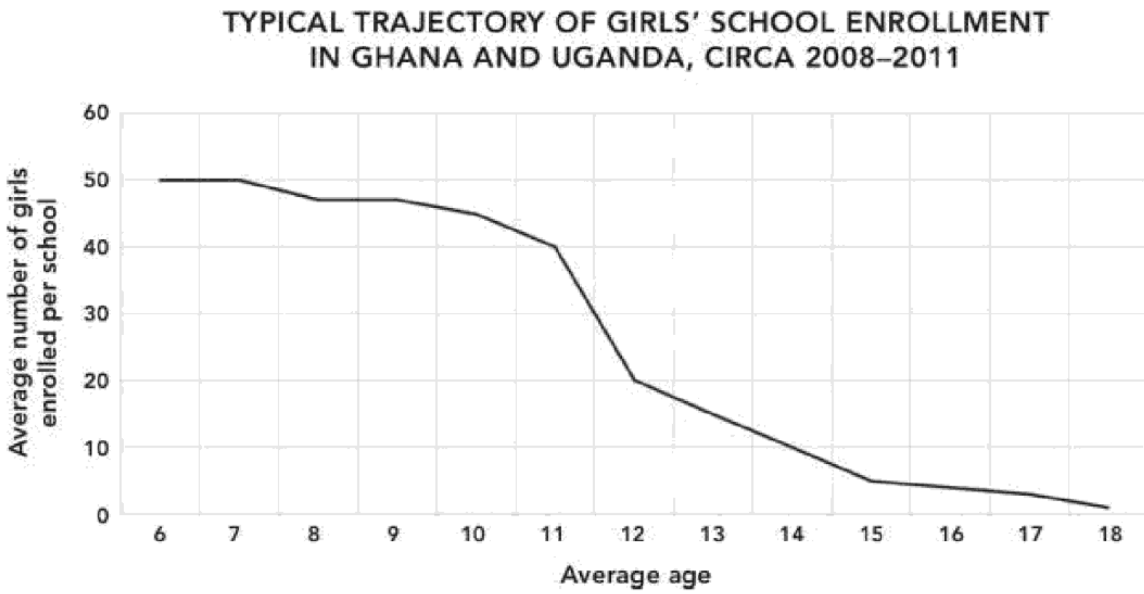


FIGURE 6. This line graph distills hundreds of photographs and field notes my colleagues and I took of school enrollment records in rural and peri-urban Ghana and, later, in Uganda (where the randomized trial of the intervention was done). As in this graph, the drop in girls' enrollment between primary and secondary school—when most girls were eleven to fourteen years old—always looked like a ski jump.

CARE International's office in Kumasi (a city in south-central Ghana) was our last chance to convince an NGO to help us. For the first twenty minutes of the meeting, my colleague, Paul Montgomery, and I were sure they were going to turn us down. Then suddenly, a big man walked into the room, breathless from running late. Conversation stopped; everyone turned in his direction. The man explained that when he heard we were coming to discuss sanitary care, he had decided to find out for himself whether there was an issue. He had gone out to the villages to ask the women and was just returning. "The problem is real," he said simply, adding as he sat down, "They just don't talk about it." A little later, Paul and I piled into the big man's truck and headed out to talk to the women and begin seeking approvals from community elders.

The big man, George Appiah, always called ahead to the chiefs, so each council was prepared to receive us. When we arrived, we would be greeted by women singing and dancing—a welcome ritual that I loved. But once we settled in for the meeting, only men were gathered for decision-making; we inevitably had to negotiate a way to include the women.

One particular village sticks in my mind. We were seated beneath a large tree, with an older, all-male council facing us. We asked whether some of the women could join us and were assured that was not necessary. We insisted. So they called to the women, who gathered under another tree, too far away for them to see or hear us and vice versa. We asked whether the women might sit with the rest of us, pointing out that our project was really a women's issue. The council gave the okay and the women moved over. As we explained the problem, I could see the men's eyes grow shocked, then uncomfortable, and finally a bit glassy as they decided this was not a matter they wanted to think or talk about. I suggested we might go with the women to a more private spot for discussion and agreement. The men were relieved to let that happen.

We went to an empty classroom in the school and, now able to speak candidly, explained our mission. The women were very interested, but since they had never seen a sanitary pad, they had trouble imagining what they would be approving. I had purchased pads at kiosks along the road to see what products were available and at what prices, so I had some with me. I then grabbed a half-full bottle of warm Coca-Cola sitting in a cup holder in the truck. With the women gathered close and straining to see, a young woman from CARE poured Coke across a pad, then lifted it up to show that the brown liquid did not leak through. "Aaaahhh!" the women breathed, all at once, then laughed. Their leader, called the "queen mother," shouted that they all approved the research.

Before we began the actual field test, though, we interviewed hundreds of people—teachers, nurses, school officials, parents, and students—all over Ghana. We found that girls did indeed miss school because they had only improvised sanitary materials. However, we also learned that they did not drop out of school from academic discouragement but because of forced marriage, pregnancy, or a decision to run away.

When a girl menstruated, we were told, she was considered "ripe" by the men in her community and therefore both marriageable and sexually available. Her father would want to marry her off quickly to get the "bride price," a significant payment that a groom makes to the father in exchange for his daughter. The going rate for a wife was about US$500, with which a father could buy a cow and still have US$150 left over. The girl's marriage also unburdened the parents of her education and upkeep. So marrying your daughter off early looked like a great deal.

The father usually chose the prospective husband who made the best offer or struck a bargain with someone to whom he owed a debt. I once asked a teacher in Ghana whether daughters had any choice over what man they married. "No!" he snapped. "When you are a woman, you do not choose!" I let it drop, unsure whether he was incensed by the practice or with me for asking an impertinent question.

After marrying, the daughter usually moved to live with her husband's family, often in a village some distance away, and was thereafter required to turn over any earnings she might have to him or his relatives. The birth parents, therefore, did not see any economic value in keeping their daughters in school; they were more likely to invest in their sons' education because the boys stay at home, gradually taking over farms and supporting their parents in old age. These cultural arrangements—common across the developing world—result in a strong preference for sons.

The girls in Ghana became pregnant out of wedlock for many reasons, including the usual one where passions and pleasure just ran away with them. But there was also a high incidence of "transactional sex" (sex in return for some favor, object, or payment) because the girls had few options to earn money. Girls being raised by a relative other than their parents—which was often the case, given the HIV/AIDS epidemic—sometimes had their economic support taken away from them when they began to menstruate. The relative would insist that the girl was a woman now and should be able to take care of herself. As we were told by mothers, aunts, and grandmothers, the common expectation was that the girl would "take a boyfriend" to support herself, especially if she wanted to stay in school. If she got pregnant, this boyfriend sometimes married her, but otherwise she and her child fell further into poverty.

Too often, pregnancy was the result of rape. I was shocked at how common forced sex was and how much it was tolerated. A 2012 study of fifty thousand schoolgirls in ten African countries showed that a third of sixteen-year-old girls had experienced forced sex, usually from about the age of twelve—probably on the arrival of puberty. Coercion was more likely when the community had a favorable attitude toward transactional sex, and many adults themselves had experienced forced sex.[2]

Once a community knew that a girl had menstruated, men would begin following her to and from school. This stalking behavior—euphemistically called "eve-teasing"—is common in developing countries. The "solution" to rape was for the attacker to marry the girl as a way of making things right with her father. Few seemed worried about the trauma suffered by the girl. Male sexual aggression was just an expected part of life. We saw lots of public health campaigns aimed at sexual abstinence, but it was plain that unwanted pregnancy and sexually transmitted diseases weren't going away with "just say no."

We could now see that many girls were indeed leaving school because of pregnancy, as conventional wisdom held, but it wasn't because girls wanted stylish clothes and cool cell phones. Instead, the overwhelming sexual pressure, much of it coercive, as well as a total absence of economic options, pushed the girls in that direction. However, if you could put the brakes on this pressure, GDP would undoubtedly go up, not only because of the better labor supply but also because the many social, health, and economic costs associated with adolescent fertility would go down. The World Bank estimates that keeping girls in school through the twelfth grade would save poor countries between US$15 trillion and US$30 trillion in lost lifetime productivity and earnings. Child marriage costs the world about 1.4 percent of GDP annually, an average of US$4 trillion a year.[3]

Keeping menstruation a secret was critically important to making the change. Unfortunately, the materials girls used in place of sanitary pads were a dead giveaway. They used "found" cloth, usually scraps from old garments, but sometimes stuffing from mattresses or anything else that might absorb fluid. However, the materials usually were *not* absorbent enough, so leaks were frequent; if that happened in a public place like school, they were "outed."

But it gets worse. Cloth has to be washed and dried, yet there was no plumbing, and often girls did not have soap or a private place where the materials could dry.

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