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The most economically free countries are also the ones with the most equitable treatment of men and women under the law.

# 1.0

## Introduction

Economic freedom, the ability of individuals to make their own economic decisions, is key to economic and social progress. Hundreds of academic studies have shown that economic freedom leads to higher rates of economic growth, higher levels of income, increased trust and honesty in government, protection of civil liberties, reductions in poverty, and improvements in health and educational outcomes<sup>1</sup>. Unfortunately, in many countries not all members of society have equal access to economic institutions that protect economic freedom. For example, formal legal restrictions in many countries prevent women from owning property, engaging in voluntary trade, and operating businesses.

In 2016, the Fraser Institute published an important study in its annual *Economic Freedom of the World* report, *Gender Disparity in Legal Rights and Its Effects on Economic Freedom* (Fike, 2016). The study included the construction of the Gender Disparity Index, which used several measures to capture gender disparities in legal rights around the world in five broad areas: Freedom of Movement, Property Rights, Financial Rights, Freedom to Work, and Legal Status. *Economic Freedom of the World: 2017 Annual Report* uses a slightly revised Gender Disparity Index to adjust its economic freedom index to account for the differential legal treatment of women. This paper explores how the Gender Disparity Index affects the economic freedom ratings of countries around the world and examines whether societies with greater levels of economic freedom (adjusted for gender legal disparities) have superior economic and social outcomes for women.

Those interested in a detailed explanation of the Gender Disparity Index and its categories and subcomponents should see “Adjusting for Gender Disparity in Economic Freedom and Why It Matters” in *Economic Freedom of the World: 2017 Annual Report* available at:  
[www.fraserinstitute.org/studies/economic-freedom](http://www.fraserinstitute.org/studies/economic-freedom)

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<sup>1</sup> See Hall and Lawson (2013) for a detailed survey of the literature on the relationship between economic freedom and various development outcomes.

# 2.0

## The Gender Disparity Index

The Gender Disparity Index (GDI) captures the degree to which women around the world have the same legal rights as men and adjusts the economic freedom score accordingly. The Gender Disparity Index employs the World Bank's *Women, Business, and the Law Report* (World Bank, 2009, 2011, 2013, 2015), which tracks legal and regulatory barriers imposed on women that limit their ability to participate freely in formal economic activity. These data were released for the first time in 2009, and are updated every two years to incorporate legal and regulatory reforms that take place. For 2015, the most recent year shown in the Gender Disparity Index, the index uses 41 variables from *Women, Business, and the Law Report*. All of the variables included directly relate to a woman's ability to freely participate in the formal economy and can be broadly classified under the following categories.



# Gender Disparity Index Variables

## FREEDOM OF MOVEMENT

This category reflects legal restrictions on a woman's ability to move freely within her country as well as abroad. For example, restrictions on a woman's ability to travel outside her home in the same way as a man are included in this category.

## PROPERTY RIGHTS

This category measures barriers that women face in owning property. Laws reflecting inheritance practices as well as land and non-land property rights are included in this category.

## FINANCIAL RIGHTS

A woman's inability to open a bank account or obtain a loan without the permission of her spouse or male relative limits a woman's ability to gain financial independence. Women who wish to undertake business ventures of their own, in the way that they choose, would therefore have to appeal to another party for permission. Limitations on a woman's financial decisions are included in this category.

## FREEDOM TO WORK

Any legal restrictions on the choices women can make about how and where they can employ their labour are included in this category. Many countries have restrictions on the number of hours a woman is permitted to work and the type of professions she is allowed to pursue. Such laws reduce a woman's economic freedom.

## CONTRACTING FREEDOM

Being able to enter freely into contracts is central to participation in the formal economy. In many nations, women are not able to enter into contracts in the same way as men.

## BUSINESS FREEDOM

The freedom to open and run a business is a necessary component of overall economic freedom, yet in many nations women cannot register a business in the same way as men.

## LEGAL STATUS

This category reflects gender differences in the legal standing of a country's citizens. Measures in this category reflect issues such as whether or not a woman can be a "head of household," whether a woman can confer citizenship to her children, and whether a woman's testimony in court holds the same weight as a man's.

**In countries with limited economic freedom, 25% of women have a bank account, but in economically free countries 82% of women have one.**

TABLE 1

## COUNTRIES WITH THE LOWEST GENDER DISPARITY INDEX SCORES, 1995-2015

1995		2000		2005		2010		2015	
South Africa	0.00	Benin	0.11	Niger	0.29	Saudi Arabia	0.41	Saudi Arabia	0.41
Benin	0.11	Niger	0.29	Congo, Dem. R.	0.33	Jordan	0.48	Syria	0.46
Niger	0.29	Congo, Dem. R.	0.33	Lesotho	0.33	Iran	0.52	Jordan	0.49
Congo, Dem. R.	0.33	Lesotho	0.33	Mauritania	0.33	Bahrain	0.54	Kuwait	0.49
Lesotho	0.33	Mauritania	0.33	Saudi Arabia	0.41	Kuwait	0.59	Unit. Arab Em.	0.51
Mauritania	0.33	Saudi Arabia	0.41	Bahrain	0.54	Oman	0.59	Bahrain	0.54
Namibia	0.33	Bahrain	0.54	Cameroon	0.56	Syria	0.59	Egypt	0.54
Saudi Arabia	0.41	Cameroon	0.56	Iran	0.56	Unit. Arab Em.	0.59	Cameroon	0.59
Morocco	0.44	Iran	0.56	Jordan	0.56	Qatar	0.62	Congo, Dem. R.	0.59
Bahrain	0.54	Jordan	0.56	Madagascar	0.56	Yemen, Rep.	0.62	Iran	0.59
Cameroon	0.56	Madagascar	0.56	Mali	0.56	Mauritania	0.66	Mauritania	0.61
Indonesia	0.56	Mali	0.56	Yemen, Rep.	0.56	Malaysia	0.67	Oman	0.61
Iran	0.56	Mozambique	0.56	Kuwait	0.59	Central Afr. Rep.	0.69	Qatar	0.62
Jordan	0.56	Nepal	0.56	Oman	0.59	Congo, Dem. R.	0.69	Yemen, Rep.	0.63
Madagascar	0.56	Syria	0.56	Unit. Arab Em.	0.59	Swaziland	0.69	Niger	0.65
Mozambique	0.56	Yemen, Rep.	0.56						
Nepal	0.56								
Syria	0.56								

Since the Gender Disparity Index is derived from formal legal and regulatory codes, social norms, religious customs, and other informal rules are not captured by this measure. Even when there is a formal legal institutional context that treats men and women equally, women in some countries may face additional informal barriers that limit their economic participation. In such cases, the Gender Disparity Index will not fully account for the gender discrimination that takes place, and the adjusted economic freedom score will still overstate the level of economic freedom.

The Gender Disparity Index is scored between 1.00 (no legal gender disparity) and 0.00 (legal gender disparity in each of the variables used in the Gender Disparity Index). For the most recent year, 2015, Gender Disparity Index scores range from 0.41 (Saudi Arabia) to 1.00 (48 countries have this score). The global average score for the Gender Disparity Index increased from 0.80 in 1970 to 0.90 in 2010. This is consistent with the view that the social and legal status of women has improved in many societies in the past several decades. However, between 2010 and 2015 the global average score decreased from 0.90 to 0.87, mainly as a result of the availability of additional data after 2010.<sup>2</sup>

From 1970 through 1990, the countries with the 15 lowest scores were predominantly African countries, with several Middle Eastern (Saudi Arabia, Bahrain, Iran, Jordan) and Asian countries (Nepal and Indonesia) making the list. Starting in 1995, however, Middle Eastern and North African countries begin to dominate the list of countries with the greatest gender disparity. By 2015, 11 out of the 15 countries with the lowest scores were located in this region. This shift does not indicate an increase in gender disparity in this region, but rather the removal of barriers to women's economic rights in sub-Saharan Africa.

<sup>2</sup> This decline primarily reflects an increase in the number of available variables included in the *Women, Business, and the Law Report*. Between the 2012 and 2014 annual reports, the World Bank added several new questions, 10 of which are included in the gender adjustment index beginning in 2013. The change in average scores reflects the tradeoff made to gain greater precision in the gender disparity index by including more data.



# 3.0

## Incorporating the Gender Disparity Index into the *Economic Freedom of the World Index*

The index published by the Fraser Institute in *Economic Freedom of the World* (EFW) measures the level of economic freedom in countries around the world using 42 distinct variables rated on a scale of 0 (less free) to 10 (more free). The 42 variables used to measure economic freedom are grouped under five areas.

### *Area 1: Size of Government*

As government spending, taxation, and the size of government-controlled enterprises increase, government decision making is substituted for individual choice and economic freedom is reduced.

### *Area 2: Legal System and Property Rights*

Protection of persons and their property is a central element of both economic freedom and civil society.

### *Area 3: Sound Money*

Inflation erodes the value of wages and savings; in other words, the property of persons. Sound money is thus essential to protect property rights. When inflation is not only high but also volatile, it becomes difficult for individuals to plan for the future and thus use economic freedom effectively.

### *Area 4: Freedom to Trade Internationally*

Individuals should be able to freely buy from and sell to each other, not only in their own nation but in any nation.

### *Area 5: Regulation*

Governments may also develop unnecessarily onerous regulations to limit the right to buy and sell domestically, gain credit, hire or work for whom you wish, or freely operate your business. This area measures the limits on economic freedom caused by excessive regulation.

It is not clear that all five areas of the index from *Economic Freedom of the World* are in need of adjustment. For example, even when there are large gender differences in property rights or legal status, there is no strong argument to suggest that the size of government and the monetary regime treat individuals differently by gender. For these reasons, the Gender Disparity Index is applied solely to *Area 2: Legal System and Property Rights*.<sup>3</sup>

Adjusting for gender differences does not drastically alter the summary scores for most countries: 48 countries have no downward adjustment to Area 2 in the most recent years, meaning their Gender Disparity Index is equal to 1.0. Another

74 countries experienced only slight decreases in their summary score of less than 0.10. Thus, the scores for 122 out of the 159 countries in the dataset of *Economic Freedom of the World* are barely affected by the gender adjustment.<sup>4</sup>

For a small subset of countries, primarily those in the Middle East and North Africa, the gender adjustment results in a substantial decrease in both their score and their position in the rankings. Table 2 provides a list of the 20 largest decreases in the rankings for the most recent year as a result of the incorporation of the gender disparity index. For these countries, the table presents Gender Disparity Index, unadjusted and adjusted rankings, as well as the magnitude of the decrease in rank.

TABLE 2

**COUNTRIES WITH THE LARGEST DECREASE IN RANK AFTER THE GENDER ADJUSTMENT, 2015**

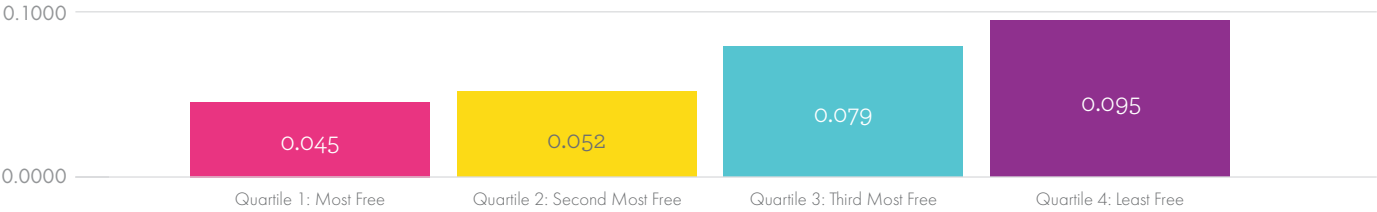
Country	Gender Disparity Index	Unadjusted Rank in <i>Economic Freedom of the World</i>	Adjusted Rank in <i>Economic Freedom of the World</i>	Change in Rank
Qatar	0.62	22	45	-23
Saudi Arabia	0.41	99	122	-23
Unit. Arab Em.	0.51	14	37	-23
Bahrain	0.54	27	49	-22
Jordan	0.49	17	39	-22
Kuwait	0.49	80	97	-17
Malaysia	0.67	51	65	-14
Oman	0.61	83	97	-14
Kazakhstan	0.74	54	66	-12
Egypt	0.54	130	140	-10
Azerbaijan	0.72	107	114	-7
Russia	0.74	94	100	-6
Moldova	0.72	97	102	-5
Morocco	0.76	115	120	-5
India	0.78	91	95	-4
Kyrgyz Republic	0.74	76	80	-4
Niger	0.65	135	139	-4
Poland	0.85	47	51	-4
Syria	0.46	149	153	-4
Tajikistan	0.72	78	82	-4
Lebanon	0.74	75	78	-3

<sup>3</sup> The formula is: Adjusted Area 2 = (Area 2)(1 + GDI)/2

<sup>4</sup> The correlation between the gender-adjusted EFW index and the unadjusted version is quite high, ranging from 0.9919 to 0.9982 throughout the entire dataset.

The average difference between the unadjusted scores and the adjusted scores are sorted into quartiles based on unadjusted scores from most to least free in Figure 1.

FIGURE 1  
**DIFFERENCE BETWEEN UNADJUSTED AND GENDER ADJUSTED EFW SCORES IN 2015, SORTED BY UNADJUSTED ECONOMIC FREEDOM OF THE WORLD SCORE QUARTILES**



The most economically free countries have the lowest average difference between the gender-adjusted and unadjusted scores. On average, countries with unadjusted economic freedom scores that place them in the top quartile have a 0.045-point difference between their adjusted and unadjusted scores. This average difference steadily increases as you move through each quartile: Quartile 2 (0.052); Quartile 3 (0.079); and Quartile 4 (0.095). Again, this indicates that with greater economic freedom comes greater gender equality under the law.



**In 24 countries, women are not permitted to work the same nighttime hours as men.**



In 19 countries married women are required to obey their husbands and/or get their permission before seeking employment.

# 4.0

## Economic Freedom and Women's Well-Being

Next, we examine whether societies with greater levels of economic freedom, adjusted for gender disparity, have superior economic and social outcomes for women. Four areas of particular importance are:

1. economic and labour market outcomes;
2. health outcomes;
3. educational outcomes;
4. financial independence.

These areas are examined through the lens of economic freedom, as adjusted by the Gender Disparity Index. In the series of graphs below, jurisdictions with economic freedom scores above 7.5, the top 37 nations, are compared in the left-hand column with those below 6.0, the bottom 33 nations. The outcome data are from the World Bank's development indicators unless otherwise noted.<sup>5</sup> The following figures should be considered illustrative, suggesting productive areas for future research, just as the index published in *Economic Freedom of the World* has spawned hundreds of empirical and policy articles examining the impact of economic freedom.

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<sup>5</sup> Data for 2014 are used for figures 4 and 9 to allow broader coverage of nations; data for 2016 are used for figure 10 for the same reason.

### Economic and Labour Market Outcomes

Figure 2 indicates that women are more likely to participate in the formal labour market in countries that have high levels of economic freedom. In fact, women are almost twice as likely to participate in the labour market in nations with high levels of economic freedom as in nations with low levels.

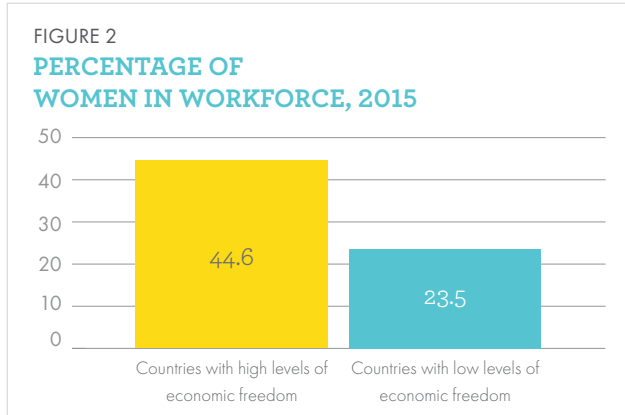


Figure 3 shows the percentage of female wage workers employed in vulnerable occupations. Individuals are considered to be employed in a vulnerable occupation if they are classified as self-employed workers or contributing family workers. These individuals are less likely to have formal labour contracts and more likely to work in undesirable conditions. Women in nations with low levels of economic freedom are almost three times as likely to work in vulnerable occupations as in nations with high levels.

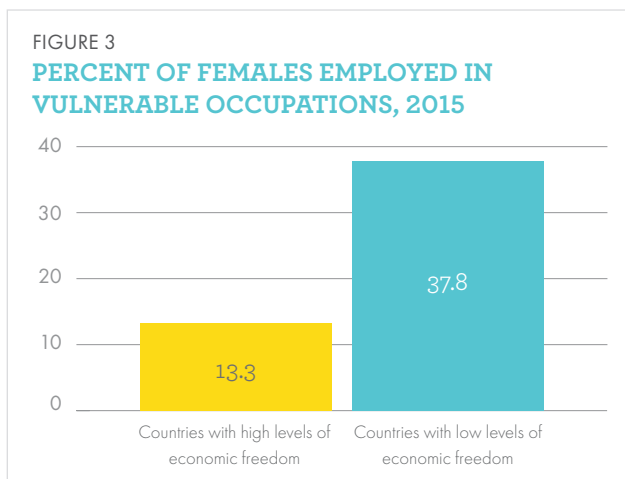
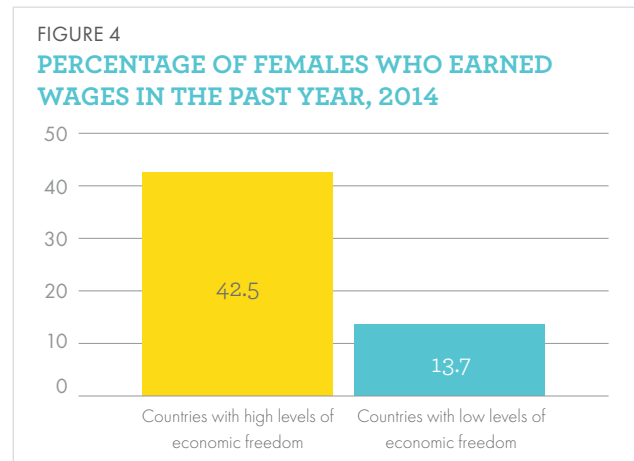


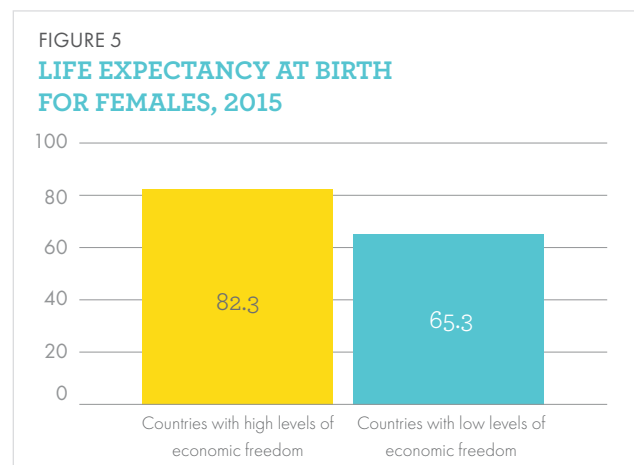
Figure 4 compares the percentage of women who earn wages or a salary. Again the differences are striking. The share of women earning wages in nations with high levels of economic freedom is three times higher than it is in nations with low levels.

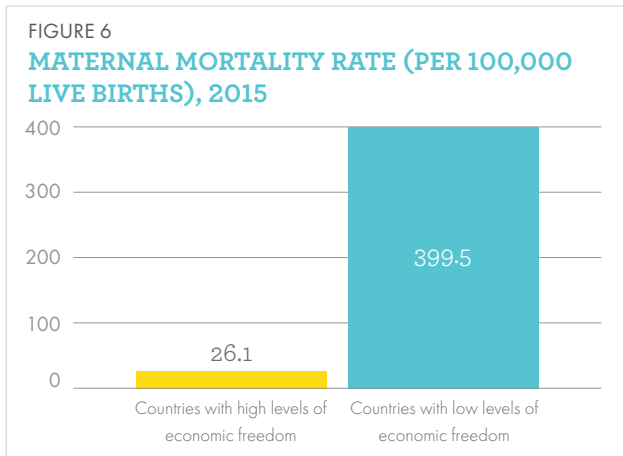


Figures 3 and 4 indicate that women living and working in countries that have high levels of economic freedom are more likely to have a stable occupation with a predictable stream of income than women living and working in countries where economic freedom is weak.

### Health Outcomes

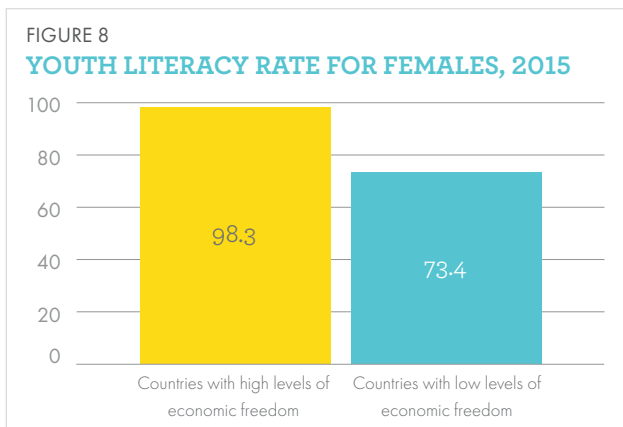
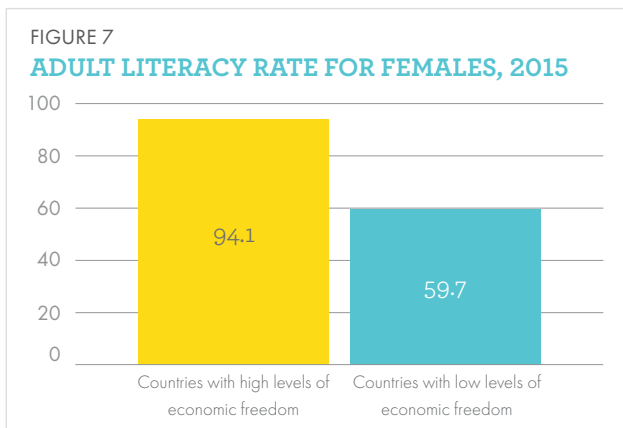
Figures 5 and 6 examine two key indicators of women's health outcomes, life expectancy and maternal mortality. Figure 5 indicates that women living in countries with high levels of economic freedom have considerably longer life spans—17 years on average. Women's reproductive health outcomes are also better in societies that have higher levels of economic freedom. Women living in jurisdictions with low levels of economic freedom are 15 times more likely to die in child birth than those in nations with high levels of economic freedom (figure 6).





### Educational Outcomes

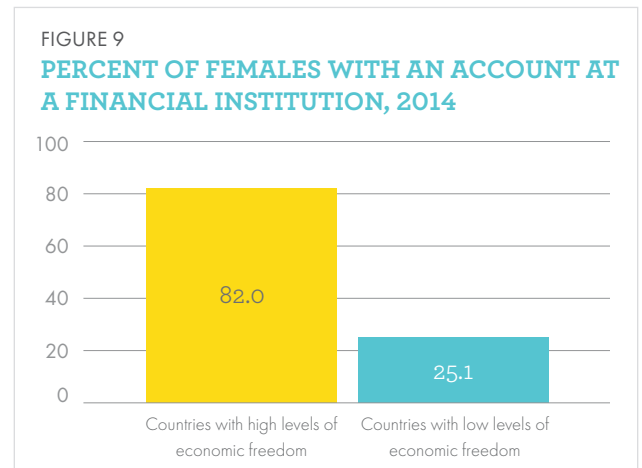
We now turn to women’s education outcomes, as measured by literacy rates. In countries with higher rates of economic freedom, there should be a higher reward to acquiring the human capital in the labour market. Countries that significantly restrict the economic choices create a disincentive to acquire human capital.



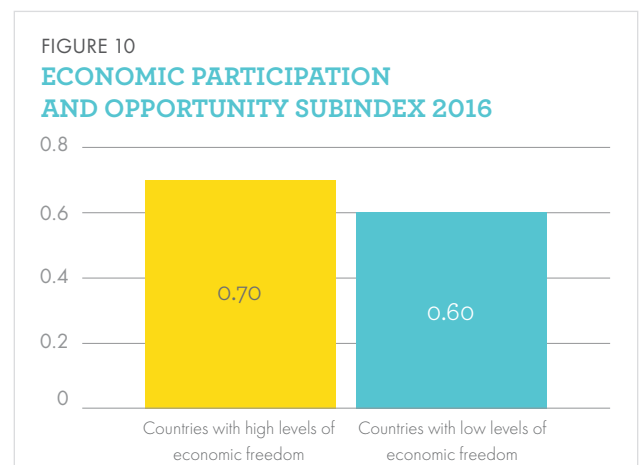
The literacy rates for women in countries with high levels of economic freedom are, on average, 50% higher for adults (figure 7) and 30% higher for adolescents than in countries with low levels (figure 8).

### Financial Independence

Figure 9 shows that women who live in countries with high levels of economic freedom are more likely to have a bank account, typically a key element of financial independence, than women living in places where economic freedom is low. Remarkably, less than a third of women living in nations with a low rank for economic freedom hold a bank account.



Finally, the World Competitiveness Forum’s *Economic Participation and Opportunity Subindex*,<sup>6</sup> scaled between 1 for perfect equality and 0 for perfect inequality, shows that economic participation and opportunity are associated with high levels of economic freedom. (Figure 10; using 2016 data permits an increased coverage of nations.)



<sup>6</sup> This is the only illustrative chart in this section not based on World Bank data. It is from the World Economic Forum (2016), *The Global Gender Gap Report*.



Women in economically free countries are nearly twice as likely to join the labor force as women in economically unfree nations.



# 5.0

## Concluding Remarks

This publication provides an overview of the Gender Disparity Index used to adjust Area 2, Legal System and Property Rights of the *Economic Freedom of the World* index. (Details available at: <https://www.fraserinstitute.org/studies/economic-freedom-of-the-world-2017-annual-report>.) As a result of this change, the index published in *Economic Freedom of the World* now accounts for the fact that some countries place additional legal and regulatory barriers on the economic activities of women, providing estimates of economic freedom that better capture the experience of the entire population, women as well as men.

For most of the countries measured by the index, this gender adjustment process results in no material change in their overall summary score. For many countries in the Middle East and North Africa, however, this adjustment process results in a notable downgrading of their economic freedom scores. In the past, the economic freedom in these countries has been overstated as the previous Area 2 scores only reflected the experiences of half of the population.

Examining the patterns in the data leads to optimistic conclusions. First, the changes in the global average gender-adjustment scores indicate that parity under the law has generally been on the rise since 1970. Throughout this time, movements towards greater gender equality have been made—even in the places where gender discrimination is the most pronounced.

Moreover, a comparison of a set of development outcomes comparing women living in countries with high levels of economic freedom with those with low levels suggests that economic freedom is correlated with improved economic opportunity, health and education outcomes, and financial independence for women.



The share of women earning wages in economically free nations is over three times higher than in nations with limited economic freedom.

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